

REPORT DESIGN GUIDE

Version

6.5

Izenda Reports Report Design Guide, Revision 2

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Preface

Izenda is a reporting and business intelligence platform that connects directly to relational and nonrelational data sources. Through its .NET API, it loosely couples with Microsoft-based applications to integrate with your current security, branding, and navigation.

Izenda *Reports* enables you to easily access your databases directly and quickly transform raw data into useful and readily understood information.

With Izenda, you can:

- Extract the information you need from one or more related tables.
- Format data into tables, reports, charts, pivots, and gauges.
- View the resulting report in your Web-browser and then print it.
- Export reports in several formats, including Microsoft Word, Microsoft Excel, and Adobe PDF.
- Automate many processes through scheduling, sharing, alerting, batch processing, and caching
- Implement custom layout reports through Izenda Forms
- Develop user-defined or custom Dashboards and Maps

Izenda's point-and-click interface is designed for the standard business user, with Advanced options available for those with greater access and skill. Many users will never design reports, but simply make modifications to current core reports, or use drill-downs to start at a high level overview and click through to get to the required information.

This user manual will step you through each simple process in using *Izenda*, and provide you with what you need to know to create your queries and reports. Any data that your application developer has included in the database can be accessible to you in creating *ad hoc* reports.

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1.0 INTRODUCTION TO IZENDA REPORTS

Izenda Live Demo Page



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Design A New Report



Easy to Use Report List



Click on the Link Above or the Image to Navigate to the Page

1.1 Report List

Branded Standalone Izenda Interface – Office 2013 Style Report List



Embedded Application Example – Report List

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1.2 Report Designer

The Report Designer lets you create new reports and modify existing reports.

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]	▼	💌 🔀 🖆 🛱 🗘
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Quick Add Add Pivot Conti	nue to Summary				

The Report Viewer lets you easily modify a previously create report and save a variation, print it, export to various formats, and share it through email.

1.3 Report Viewer

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1.4 Dashboard Designer

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1.5 Settings

Report List Report List	Izenda.config	Update Schema	Generate C# Code Generate VB.NET Code Preview (Requires clearing browser cache)
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			The Employees Invoices Order Details
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Continue to Features

Click on C# or VB Button to see code samples for the selected property

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Visible Tables and Views	Details (Default) C# V	
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Click on Details to see the description for the selected property and Go to Online Documentation, if needed.

Table Piter Regex	Details	(Default)	C# VB (CzendaAdHoc)	
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Viable Tables and Views	Details	(Default)	Visible Tables and Views This area allows the user to select which tables or views (data source default the 'all tables and Views' checkbox is selected and all tables ar for report creation.	nd views are shown are accessible as data sources
			Go To Online Documentation	Close

2.0 QUICK START GUIDE

Toolbar Preview



Creating a Basic Report



Report Creation Full Tutorial



2.1 Building your first report

- Navigate to the <u>Report List page</u>
- Click the "Design A New Report" link

Design a New Report

Click to design a new report

• Select a report data source in the "Data Sources" tab (the drop-down contains tables and views) like Invoices or Orders

Data Sources	Fields	Summary	Chart	Gauge	Map Mi	sc Style	Filters	Preview			
🖣 Back 🔲 R	eport List	🗋 New	Save	Rave As.	🙋 Print	sol 🐴	×		2	💼 🖂	🌣 Results 1000 💌
🗹 Allow nulls											
Data Sources (Tables an	d Views)									
			-	-							
FieldHistory			-								
FileOne											
FileOneTest Filter											
FiscalYearSe	ttinas										
foo	ango										
InvestmentPo	ol										
Invoices											
InvoicesDot Joins		7									
Lead											
Note											
NullOrders											
Opportunity											
OpportunityCo OpportunityCo											
OpportunityHi		0									
OpportunityLir											
Order Details											
Order Details	Extended	t i	•								

Select Views and Tables

• Select one or more fields, such as LastName, or Orderld, from the "Field" drop-downs

Data Sources	Fields	Summary	Chart	Gauge	Мар	Misc	Style	Filters	Preview							
🖣 Back 🔲 R	eport List	🗋 New	Save	Rave As	🗃	Print 📢	0 🖳	× 2) 🛛 🕅	ल्ले ।	M 🗘	Results	1000	·		
Records 📃																
Field			1	Description		Sort	VG A	Function			Format					
CustomerID			-	Customer	ID					•			• 🔀	•	ê	\$
OrderID			-	Order ID						-	0,000		- 🗙	•	ê	t
			Ţ							•	i			1 R	â	Î
			, <u>L</u>					1		_				_		*
Address																
City Country																
CustomerID			2	ımmary	Previ	ow.										
CustomerNan	ne			anniay	FIEVE	811										
Discount																
ExtendedPric	e															
Freight	-															
OrderDate		N														
OrderID		•														
PostalCode		•														
ProductID																
ProductName	9															
Quantity																
Region																
RequiredDate	Э															
Salesperson																
ShipAddress																
ShipCity			•													

Select Fields

• Click the "Preview" tab

Data Sources	Fields	Summary	Chart	Gauge	Мар	Misc	Style	Filters	Preview			
🖣 Back 🔲 Re	eport List	🗋 New 🔓	Save	Save As.	🚳	Print 🕫	1 🖳	× 2		🗋 💼 I	🖂 🔅 Resu	ilts 1000 💌
Records												
Field			D	escription		Sort	VG A	Function			Format	
CustomerID				Customer l	D					•		1 🌼 🖷 🖻 🔀 🔽
OrderID				Drder ID						•	0,000	1 🌼 🖷 🖻 🔀 📃
OrderDate			-	Order Date	9					•	Short Date	👤 🔀 🖻 ቅ 🏟 🗅
			-							•		💌 💌 🖻 🖗 🗘

\Box Add Subtotals

Quick Add Add Pivot	Continue to Summary	Preview	
---------------------	---------------------	---------	--

Click the preview tab

• Click the "Save" button to save your report

Data Sources Fields Summary Chart Gauge Map Misc Style Filters P	review
🖣 Back 🔲 Report List 🗋 New 🤤 Save 💭 Save As 🚳 Print 👊 🐴 💌 🖉	🔟 📝 🔜 🖂 🌞 Results 1000 🔽
R	
Customer ID	Order ID
VINET	10,248
VINET	10,248
VINET	10,248
TOMSP	10,249
TOMSP	10,249
HANAR	10,250
HANAR	10,250
HANAR	10,250
VICTE	10,251
VICTE	10,251
VICTE	10,251
SUPRD	10,252
SUPRD	10,252

Click "Save" to save your report

• Enter a name and category(optional) in the "Save" dialog box

Data Sources Fields Summary Chart Gauge Map Misc Style Filters P	review
🖣 Back 🔲 Report List 🗋 New 🌄 Save 💭 Save As 🎰 Print 👊 🐴 💌 🖉	🗷 📝 📓 🖂 🌞 Results 1000 🔽
Customer ID	Order ID
VINET	10,248
VINET	10,248
VINET	10,248
TOMSP	10,249
TOMSP	10,249
HANAR	10,250
HANAR	10,250
HANAR	10,250
VICTE	10,251
VICTE	10,251
VICTE	10,251
SUPRD	Input report name 10,252
SUPRD	Widget Orders 10,252
SUPRD	Category 10,252
HANAR	Analusia 10,233
HANAR	10,233
HANAR	OK Cancel 10,253
CHOPS	10,254
CHOPS	10,254
CHOPS	10,254
RICSU	10,255
	10.255

Enter a report name and/or report category in the dialog box

You now have your first functional report. This is a very basic example, and Izenda Reports offers far more capabilities.

2.2 The "Design a New Report" Link

Design a New Report

Design a New Report Link

This is a special link. Clicking this link takes you to the report designer where you can create a new report.

2.3 The Delete, Design and Modify Buttons

<u>Automation Test</u>
<u>Chart - Bar Multi-Year Pareto</u>

Report Link, Delete & Modify Buttons

The delete button 🖾 allows you to delete a report. Clicking it will pop-up a dialog box confirming your choice to delete.

The design button \mathcal{D} allows you to make an advanced customization to the report by loading the report in the report designer.

By clicking on the Report Title (Automation Test) you can make simple customizations in the Report Viewer interface.

2.4 Toolbar

🛛 🛛 🖉 Back 🔚 Report List	New 📕 Save	Save As	Print 🛃	SOL E	× 🖉	XW	1	I 🖂 🛱	Results 1000 -
----------------------------	------------	---------	---------	---------	-----	----	----------	-------	----------------

Toolbar Buttons

The table below describes the functions of the Toolbar buttons.

lcons	Features	Description
🖣 Back	Back	Goes to the browser's previous page.
New 📄	New	Creates a new report.
	Save	Saves a report.
Save As	Save As	Allows a new report name to be saved.
💼 Print	Print (PDF Export)	Saves the report as a PDF document.
ど GO	IE	Runs the report in the web browser.
品	Schema	Display database diagram
sol	SQL	Views the report in SQL mode.
×,	CSV	Saves the report as a CSV file.
24	Excel Spread sheet	Saves the report as a MS-EXCEL file.
747	Word Document	Saves the report as a MS-Word document.
	XML document	Saves the report as a XML document.
	Open office document	Saves the report as an Open Office Document.
æ	RTF document	Saves the report as a RTF document
	Back to Report List	Takes you to the Report List screen.
	E-mail	E-mails a report to a client
\$	Settings	Takes you to Settings.aspx page.

2.5 Report Design Lessons

2.5.1 Designing a List of Shipping Countries Report

Goal - The goal of this lesson is to create a report which lists all of the countries the company ships to, view the report by using the preview tab, name, and save the report.

Design this Report Edit this Report

Steps to create a new Izenda report -

- 1. From the ReportList.aspx page Click on "Design a New Report".
- 2. Under the "Data Sources" tab Click on the drop down arrow and choose "Orders"
- 3. Under the "Fields" tab Click on the drop down arrow and choose "ShipCountry". Leave the "Description" box as it is. (this will be discussed in another lesson).
- 4. Click on the "Preview" tab to see the Izenda report you just created.
- 5. Click on "Save as" tool bar button, name your report, for example "Lesson 1-1", and enter the category you want the report to be shown under, for example "Training", click ok. Now you have a saved Izenda report.
- Note: This Izenda report shows you real time information. If you want to take a snap shot of the current results you can export the information. (Exporting will be discussed later)

Ship Country
Finland
Brazil
USA
Italy
Germany
Mexico
Argentina
Switzerland
Sweden
Austria
UK
Poland
Canada
Ireland
France
Norway
Venezuela
Belgium
Spain
Denmark
Portugal

1

2.5.2 Adding additional fields, using field functions, using field formats, & sorting the data.

Goal - The Goal of the lesson is to add to the Country List Report from the previous lesson, including the ship city, number of orders, and total freight costs. Then we will sort the data alphabetically by country.

Design this Report Edit this Report

- 1. If you do not have the lesson open from before, then you will need to load it by clicking the link above.
- 2. Let's add some more information to the report other than just the ShipCountry field. Click the fields tab.
- 3. In the bottom most row under the field label, select "ShipCity" from the drop down box. Add "Order ID" & "Freight" as well.
- 4. The freight field is a dollar amount so select the "\$0.00" Format from the drop down box.
- 5. Click Preview. You will see the fields have been added.
- 6. I'm interested in the number of orders to each city and the total freight spent shipping the orders. To see this information we need to add some functions to the fields.
- 7. Next to the "OrderID" field select "count" from the function drop down box. This will count the number of order IDs from the previous report. Let's change the description to "Orders" by entering that into the description textbox.
- 8. **Notice that when a function is selected all of the fields default to using the group function.
- 9. Next to the "Freight" field select "sum" from the function drop down box. This will sum the freight. Let's change the description to "Freight" by entering that into the description textbox.
- 10. Click the "Preview" tab. Now let's sort the data alphabetically by country.
- 11. Click on the "Fields" tab. Then click on the "sort a-z" checkbox on the same row as the "ShipCountry" field.
- 12. Click the "Preview" tab. Now the data is sorted. Let's save the report.
- 13. Click on the "Save as" tool bar button, name your report, for example "Orders and Freight by Country", and enter the category you want the report to be shown under, for example "Training", click ok. Now you have a saved Izenda report.

Ship Country	Ship City	Orders	Freigh	t
Argentina	Buenos Aires		16	\$598.58
Austria	Graz		30	\$6,205.39
Austria	Salzburg		10	\$1,186,11
Belgium	Bruxelles		7	\$458.91
Belgium	Charleroi		12	\$821.23
Brazil	Campinas		9	\$322.38
Brazil	Resende		9	\$194,71
Brazil	Rio de Janeiro		34	\$1,685.27
Brazil	Sao Paulo		31	\$2,677.83
Conada	Montréal		13	\$1,394.22
Canada	Tsawassen		14	\$793.95
Canada	Vancouver		3	\$9.92
Denmark	Arhus		11	\$947.34
Denmark	Kobenhavn		7	\$448.85
Finland	Helsinki		7	\$88.41

Screen shot from final report made in this lesson.

2.5.3 Visually Grouping & Subtotal Function

Goal - The goal of this lesson is demonstrate the power of the Visually Grouping function and subtotal function using the report created in the previous lesson.

Design this Report Edit this Report

- 1. If you do not have the lesson open from before, then you will need to load it by clicking the link above.
- 2. Notice how some countries have multiple cities listed. We can visually group by the country and have a cleaner report. Click on the "Fields" tab.
- 3. Click the "VG" check box in the "ShipCountry" field row. Note: When using VG it must be the first field in the fields tab. If the field you select to Visually group by is not the first field then use the up arrow icons to make it the first field.
- 4. Click the "Preview" tab. Now the data is sorted by the Ship Country. Let's add subtotals for each Ship Country.
- 5. Click the "Fields" tab.
- 6. Select "Sum" from the "subtotal" dropdown box.
- 7. Click the "Preview" tab. Subtotals have been added. Let's save the report.
- 8. Click on the "Save as" tool bar button, name your report, for example "Orders and Freight Totals by Country", and enter the category you want the report to be shown under, for example "Training", click ok. The Izenda report is saved.

Argentina

Ship City	Orders	Freight	
Buenos Aires	16	\$598.58	
	16	\$598.58	

Austria

Ship City	Orders	Freight
Graz	30	\$6,205.39
Salzburg	10	\$1,186.11
	40	\$7,391.50

Belgium

Ship City	Orders	Freight
Bruxelles	7	\$458.91
Charleroi	12	\$821.23
	19	\$1,280.14

Screen shot from final report made in this lesson

2.5.4 Adding a Summary and a Title

Goal - The goal of this lesson is to add a summary grid and title to the report created in this lesson

Design this Report Edit this Report

- 1. If you do not have the lesson open from before, then you will need to load it by clicking the link above.
- 2. There is a lot of data here so let's add a summary. Click the "Summary" tab.
- 3. Under the "Fields" dropdown Click on the drop down arrow and choose "ShipCountry", as well as "Order ID" and "Freight".
- 4. For the "Ship Country" field select the "group" function and select the "sort a-z" checkbox. This will group the data together by country and sort the data alphabetically.
- 5. For the "Order ID" field select the "count" function and change the description to say "Orders". This will count the number of Order IDs for the country.
- 6. For the "Freight" field select the "Sum" function and the "\$0.00" format. Change the description to say "Freight". This will sum the freight for all orders sent to each country.
- 7. Let's add a grand total to see how much business we have done. Check Add Sub-totals.
- 8. Click the "Preview" tab. You will have to scroll down to the bottom to see the report.
- 9. Let's move the summary to the bottom of the report. Click on the "Style" tab.
- 10. Scroll down until you see the report order. Click on the down arrow next to "Summary" until it is below "Details". Now it will be at the bottom of this report. Let's also add a title.
- 11. Click on the "Misc" tab. In the "Title" box enter "Orders and Freight By City and Country"
- 12. Click the "Preview" tab. Now the Report is Titled and in the order I want. Let's Save it.
- 13. Click on the "Save as" tool bar button, name your report, for example "Lesson 1-4", and enter the category you want the report to be shown under, for example "Training", click ok.

Field	Description	Sort Function	Format
ShipCountry	 Ship Country 	Group	💌 💌 🔀 🖆 🔅 🗘
OrderlD	▼ Orders	Count	• 0,000 • 🔀 🔄 🗟 🔅 🗘
Freight	 Sum(Freight) 	Sum	🔹 \$0.00
	•		💌 💌 🔀 🕾 🗘 🌲

Add Subtotals

Argentina		
Ship City	Orders	Freight
Buenos Aires	16	\$598.58
	16	\$598.58

Ship City	Orders	Freight
Graz	30	\$6,205.39
Salzburg	10	\$1,186.11
	40	\$7,391.50

2.5.5 Exporting a Report

Goal: The goal of this lesson is to export the report created in the previous lesson to Excel using report designer. This can also be done in Report Viewer by selecting Excel from the "export type" drop down box and clicking the export button then follow step 3.

Note: To retain this information as it shows on your current Izenda Report let's export the information to Excel. Remember to capture the information showing on a current Izenda report you must download the report. Otherwise the report can change each time you open the report since it reads the data in real time from your data base.

Design this Report Edit this Report

- 1. If you do not have the lesson open from before, then you will need to load it by clicking the link above.
- 2. Click on the Excel button on the tool bar.
- 3. You will see a box that asks "Do you want to open or save this file".
- 4. Click "Open".
- 5. Now you will see a "web" version of the report.
- 6. Click file, save as.
- 7. Decide where you want to save the file and name the file.
- 8. Change the "Save as type" to Microsoft Excel Worksheet.
- 9. You now have an Excel document which shows the information from your report.

3.0 DATA SOURCES TAB

The **Data Sources** tab shows you which Tables or Views you have access to from the database. Your system administrator can set up the interface to simplify the data selection process, so you do not have to know the underlying data model.

Reports Data Sources Fields 10	ers 1	Lummery'	Stat	Gauge	THE P	10/10	1000	T
Dies Diese Diese te @Pres	1.4	911		1 1		E 2	0	Preven Results TERE 4
Distinct Data Sources (Tables and Views)								
P	*							
Preview								

DATA SOURCES VIDEO TUTORIAL

3.1 Simple Mode

Reports	Data Sources	Fields Summary	Chart Gauge	Map Misc	Style Filters	Preview	
Report	List 🗋 New	Save 🕞 Save As	🛃 Print 🛛 🔞 🛛	😫 🗷 📓	1 🖻 🖬 🗆	🖂 🏟 R	esults 1000 💌
All Data	Sources						
🗖 Alpha	abetical lis	Categories		ategory Sales	f 🔲 Curren	t Product	Customer and Sup
Custo	merCustomer	🔲 CustomerDerr	ograp 🔳 C	ustomers	Employ	yees	EmployeeTerritor
🗖 Invoi	ces	Order Details		order Details E	x 🔲 Order S	Subtotals	Orders
🔲 Order	rs Qry	Product Sales	fo 🔲 P	roducts	Produc	ts Above A	A Products by Cate
🔲 Quart	erly Orders	Region	S	ales by Catego	or 🔲 Sales T	otals by	Shippers
Summ	nary of Sales	. 🔲 Summary of S	ales 🔲 S	uppliers	Territo:	ries	
Advance	ed						

Data Source Selection

To join tables in check boxes mode you should just check the tables you want to join one after another. When you check the first table, all tables that cannot be joined to it will automatically be disabled. After you will select the next table to join, the list of available checkable tables will be refreshed (see image below).

All Data Sources

Alphabetical lis	Categories	Category Sales f	Current Product	Customer and Sup
CustomerCustomer	CustomerDemograp	Customers	Employees	EmployeeTerritor
Invoices	Order Details	Order Details Ex	Order Subtotals	Orders
Orders Qry	Product Sales fo	Products	Products Above A	Products by Cate
Quarterly Orders	Region	Sales by Categor	Sales Totals by	Shippers
Summary of Sales	Summary of Sales	Suppliers	Territories	
Advanced Continue to	Fielde			
Advanced Continue to	Fields			

Auto Disabling Data Sources To Join

3.2 Admin Tip – Setting Visible Data Sources

Setting Visible Data Sources

You can set up which data sources are available on a per user/per role basis by setting the Visible Data Sources property in the Global.asax file.

```
//Pass User Credentials
    AdHocSettings.CurrentUserName = HttpContext.Current.Session["UserName"] as
string;
    AdHocSettings.CurrentUserIsAdmin = true;
    AdHocSettings.VisibleDataSources = new string[] { "Orders", "Employees",
"AdminData" };
```

3.3 Admin Tip – Using Constraints

Using Constraints

Virtual constraints are easy to add in Izenda Reports. Complicated schemas no longer require extensive user education or the changing of database schemas. Virtual constraints allow Izenda Reports to know about all connections between tables.

If there are already constraints in the database, this will work automatically. If there are no constraints in the DB schema, you could add virtual constraints manually through the Izenda API using **AdHocSettings.ShowDataSourcesAsCheckBoxes = true**.

Note that constraints are required to use data sources auto-join.

You could use wildcards to add rules for all tables instead of adding constraints for each pair of

tables.

Here is a very simple example of how to use virtual constraints:

```
AdHocContext.Driver.AddConstraint("Account.Id", "*.AccountID");
AdHocContext.Driver.AddConstraint("User.Id", "*.OwnerId");
AdHocContext.Driver.AddConstraint("User.Id", "Account.OwnerId");
```

You will not able to manually specify the joined fields in this mode. If you need this capability, you will need to manually specify the **Foreign Key** relationships by clicking the Advanced button from the Data Sources tab.

3.4 Advanced Mode

In Advanced Mode, you will have to select the relationships that exist between the tables or views yourself. You will start with a drop-down menu that lists the various Tables and Views that are available.

Data Sources Fields Summa	ary Chart Chart2 Chart3	Gauge Map Misc Style	Filters Preview	
Report List New Save	📕 Save As 🦉 Print 👹 🖧	50 🖳 🖉 💌 🔛 🗎	📷 🖂 🏟 Results 100 🖃	0
Distinct				
Data Sources (Tables and Views))			
Orders •]			ф.
Order Details	. OrderID	Orders	 OrderID 	💌 Inner (Direct) 💌 🖾 📼 幕
 Categories Customers Employees Invoices Order Details Order Subtotals Orders Products Shippers Vendor				

To join two tables and/or views, they must have fields with identical entries. For example, both the *Customers* and the *Orders* tables have the same *CustomerID* field that contains one of several possible entries: beverages, condiments, dairy products, seafood, and so on. Foreign keys are not required to have the same name, but must possess a relationship that results in data when joined together.

The **Join Field** dropdown menu (below) is a list of the fields contained in the table/view selected in the **Table** dropdown menu to the left. Select the field that has identical entries as the table/view that it needs to be joined with.

Data Sources (Tables and Views)	Field (Foreign Key)		
Customers	-		
Orders	▼ . CustomerID		
 Continue to Fields Preview	CustomerID EmployeeID Freight OrderDate OrderID RequiredDate sdt ShipAddress ShipCity ShipCountry ShipPostalCode ShipPostalCode ShipPotal		

Join Field Dropdown Menu

The **Foreign Table** dropdown menu (below) is a list of the tables/views that have been selected in the **Table** dropdown menu, other than the one in that row. Select the table/view to join the table/view in that row.

Data Sources (Tables and Views)		Field (Foreign Key)		Foreign Table		
Customers		•				
Orders 💌		. CustomerID 💌 =		Customers		
		*			Customers	_
Continue to Fields	Preview					~
	1.1.7.1.7.7.1.		Eoroign Tablo Drondo			



The **Field** dropdown menu (**Error! Reference source not found.**) is a list of fields in the table/view that are selected in the **Foreign Table** dropdown menu to the left. Select the field to join with the table/view in that row.

Data Sources (Tables and Views))						
Customers	•						
Orders	▼ . C	CustomerID		Customers	▼.	CustomerID	•
Continue to Fields						Address City CompanyName ContactName ContactTitle Country CustomerID	
						Fax Phone PostalCode Region	
		Fi	ield Dropd	own Menu		<u> </u>	

The **Join Type** dropdown menu (below) is a list of the available joining methods. The "Inner" method discards any objects from the joint fields that do not have an identical match. The "Left" method still displays those without an identical match

Data Sources (Tables and Views	s)			
Customers	•			
Orders	 CustomerID 	Customers	. CustomerID	▼ Inner (Direct) ▼
Continue to Fields				Inner (Direct) Cross
				Left (First Exists
				Right
				Full

Join Type Dropdown Menu

3.4.2 Understanding the Data Model

Most users choosing to use the Advanced Mode need to have a clear understanding of the database schema (image below), which is a blueprint of how the data is organized in the database, to be able to quickly join tables together. This mode does allow for greater flexibility in selecting the types of joins that can be performed, but is not recommended for most users.



Database Schema Diagram

3.4.3 Join Types



By default, Izenda will perform an Inner Join across the data sources selected.

To show the Joins Type drop down, you can navigate to the Settings.aspx page by clicking on the gear icon in the report designer screen. After you are in the settings page, click on the Features tab and check "Show Join Drop Down". Click on Save to Izenda.config at the top of the page, and clear browser cache using CTRL F5. The Joins Drop Down will appear to the right of each additional data source chosen.

📾 🖾 🍄 Results 100 👻 1	0
🔲 Report List 🛛 🕞 Save to Izenda.conf	fig Update Schema Generate C# Code Generate VB.
Status & Utils Database Fea	atures Viewer Appearance (Images & CSS)
Allow Data Fields In Description Allow Deleting Reports	Details (Default) C# VB Details (Default) C# VB
Allow Fields As Value	Details (Default) C# VB
Show Gauge Percentage	(Default) C# VB
Show Join Drop Down	Details (Default) C# VB
Show Justification	Details (Default) C# VB

It can also be added via the API under ConfigureSettings(): AdHocSettings.ShowJoinDropDown = true;.





SQL Code of chosen Join Types:

Inner (Direct) Join: Selects rows from two tables such that the value in one column of the first table also appears in a column of the second table.

SELECT DISTINCT [dbo].[Invoices].[CustomerName] AS 'Customer Name' FROM [dbo].[Orders] INNER JOIN [dbo].[Invoices] ON [dbo].[Invoices].[CustomerID]=[dbo].[Orders].[CustomerID];

Cross Join: A cross join will return a result table where each row from the first table is combined with each row from the second table.

SELECT DISTINCT [dbo].[Invoices].[CustomerName] AS 'Customer Name' FROM [dbo].[Orders] CROSS JOIN [dbo].[Invoices];

Left(First Exists) Join: The Left Outer Join known also as Left Join returns all rows from the left table in the Left Outer Join clause, no matter if the joined columns match. A field in a result row will be null if the corresponding input table did not contain a matching row.

SELECT DISTINCT [dbo].[Invoices].[CustomerName] AS 'Customer Name' FROM [dbo].[Orders] LEFT OUTER JOIN [dbo].[Invoices] ON [dbo].[Invoices].[CustomerID]=[dbo].[Orders].[CustomerID];

Right Join: The Right Outer Join known also as Right Join returns all rows from the right table in the Right Outer Join clause, no matter if the joined columns match. A field in a result row will be null if the corresponding input table did not contain a matching row.

SELECT DISTINCT [dbo].[Invoices].[CustomerName] AS 'Customer Name' FROM [dbo].[Orders] RIGHT OUTER JOIN [dbo].[Invoices] ON [dbo].[Invoices].[CustomerID]=[dbo].[Orders].[CustomerID];

Full Join: The Full Outer Join known also as Full Join returns all rows from Both the Right Outer Join & Left Outer Join. A field in a result row will be null if the corresponding input table did not contain a matching row.

SELECT DISTINCT [dbo].[Invoices].[CustomerName] AS 'Customer Name' FROM [dbo].[Orders] FULL OUTER JOIN [dbo].[Invoices] ON [dbo].[Invoices].[CustomerID]=[dbo].[Orders].[CustomerID];

3.4.4 Function Buttons of Data Sources Tab

Data Sources (Tables and Views)				
Customers	•			4) ()
Orders	 CustomerID 	Customers	 CustomerID 	🔽 Inner (Direct) 🔽 😫 ቅ
				R
Continue to Fields				
		Function Butto	ns	

The Z, 💀 , and 🖆 function buttons are defined in Table 2 below.

lcons	Control Name	Description
×	Delete button	Click this button to delete the row the
		button is on.
	Insert Row	Click this button to insert a row above the
	button (above)	row the button is on.
4	Insert Row	Click this button to insert a row below the
	button(below)	row the button is on.

Function Buttons of Data Sources Tab

3.5 Custom Data Source Selection Page

Since Izenda is a platform and not a set product, if the Simple or Advanced Modes do not fit your needs, you can have a customized Data Source Selection Page tailored to your preferences. The example below is for a customer that had hundreds of tables in their database and needed an easy way to categorize the selection process to make it simpler for their users. Working with the client, we developed a mock-up and implemented a custom page with their existing branding and navigation.

Select Reporting Category	•	
Allow Nulls Select Data Sources		
CT100_RISK	Products	
CT100_CONTROL_FOR_RISK	III CategoryID	1
Products	Discontinued	
☑ Categories	ProductID	
	ProductName	E
	C QuantityPerUnit	
	I ReorderLevel	
	10 SupplierID	
	III UnitPrice	13
	UnitsInStock	
	🗐 UnitsOnOrder	
	Categories	

User Report Data Selection

First select which category you want to choose your values from. Then select which sub category you want to use. Lastly either select the entire table by clicking on the checkbox or select your individual data values and then click Report Designer.

Issue .	📕 🔳 Indicator Issue Links			E
 ✓ Indicator Issue Links □ Indicator Line Issue Link ✓ Issue □ Issue Interest 	Details F Indicator Links Entity Name Indicator Links Issue Id	🗆 Indicator Links Indicator Id	🗆 Indicator Links Indicator Long Name	
Issue Issue Wrapper Link Issue Secondary Target	🔲 🔲 Issue			18
🗆 Scenario Assessment Issue	Issue Details			
🗷 Issue Lookup	Activity Id	C Activity Name	C Associated Groupwide Risk Id	
	Associated Groupwide Risk Nam	e 🛛 🗖 Compliance Unit Id	Control Id	
Indicators	Control Name	Current Target Date	🗖 Extension Request Reason	
La manacara	Functional Process Id	Functional Process Name	Groupwide Activity Id	
🛙 Indicator Line	Groupwide Control Id	🗖 Groupwide Control Name	Initial Target Date	
	Issue Closure Date	🗹 Issue Details	🗆 Issue Details Formatted	
Scenario Assessment	V Issue Id	🗆 Issue Priority	🗖 Issue Priority Code	
Scenario Assessment	Issue Root Cause	Issue Root Cause Code	TIssue Source	
	Issue Source Code	Issue Status	🗆 Issue Status Id	
Organization Unit	II Issue Title	C Open Issue Flag	Cirganisation Name	
	Corganisation Unit Id	C Organisation Unit Name	Corganisation Unit Parent Path	
Action	Conginator Type	🗖 Originator Type Code	Process Id	
	Process Name	Proposed Closure Date	🗖 Register Risk Id	
🖬 Issue Wrapper	🚺 🗖 Responsible Person Id	🗖 Responsible Person Name	C Risk Id	
	Risk Name	C Risk Register Activity Name	🗖 Risk Register Name	
Person	Risk Register Process Id Issue Properties	🗆 Risk Register Process Name	C Sensitive	
■ Interest Type	Created By	Created By Id	Last Changed By	
and the	Last Changed By Id	Last Changed Date	🗖 Loader Id	
Source System	Raised Date	C Referred Date	Source System Code	
e source system	Source System Name			

4.0 FIELDS TAB

Data Sources Fields Sur	mmary Chart C			 Style Filters	
Records	/e 🍘 Dave As 🔄 P	nnt 🖼 and		🖴 🛠 Resul	ts 100 👻 🥝
Field	Description	Sort VG A	Function	Format	V 🖾 🕾 🗘 🕇
OrderID Subtotal	e Total				
Quick Add Add Pivot C	ontinue to Summar	у			

Fields Tab

After selecting the data sources you want to display, as in the previous step, continue to the Fields tab. In the **Fields** tab, you will choose which fields you want to display and be able to apply various formatting options.

Listed below is a brief description of the properties available in the main Fields tab screen.

Feature	Description
Field Selection	Select fields from the drop-down menu or use the Quick Add button
Description	Displays a new title for the Field
Sort	Sorts A - Z
VG	Visually Groups the Field
А	Arithmetic – Performs basic calculations (+, -, x, %) and concatenation of text.
Function	Displays functions available based on the type of data being accessed.
Format	Displays the formats available to be displayed based on the data type.
Other buttons	On the far right you can delete, insert, move, or set advanced properties.
Records	Sets the number of records to display, which is used many times to add a Top to the query result, such as Top 10 Customers by Revenue
Add Sub-total	Adds a sub-total to the report under each numeric column
Add Side-total	Adds a side-total to the report beside each numeric row
Quick Add	Lets you quickly add multiple fields to the report at one time
Add Pivot	Displays the pivot inputs to add to the report
Continue to Summary	Continues to the next tab in the report design process, the Summary tab.

4.1 Field Dropdown Menu

The **Field** dropdown menu is a list of the available fields in the table/view that is selected in the **Data Sources** tab. If joining tables/view, the title of the table/view that the field is from appears in parenthesis next to the name of the field. Select the fields to display. The entries in the list that are in **Bold** are the table/datasource names.



Field Dropdown Menu

4.2 Description

Automatically Inputs the name of the associated Field. You have the option to change the description and it will appear as the new title when displayed.

Data Sources	Fields	Sumi	mary	Char	t Cha	art2	Cł	hart	3
Report List	New	Save 🖓	Sav	/e As	Prir	nt 💾	s	1	2
Records									
Field			Des	cription	n	Sort	٧G	А	Fui
ShipCountry		•	- Ship	Cour	ntry				

Description

4.3 Sort, VG, & Arithmetic Check Boxes



Sort, VG, & Arithmetic Check Boxes

Table 3 explains the Sort, Group, and VG Check Box features.

Features	Description
Sort check box	Check this box if you want the table/view to be sorted by
	the field selected in the Field dropdown menu to the left
	in ascending order.
Sort (z-a) under	This check box is in the advanced properties of the row
Advanced	and can be set if you want the table/view to be sorted
🔀 🔄 🖬 🎭 🗘	by the field selected in the Field dropdown menu to the
Advanced Field Settings	left in descending order.
VG check box	Check this box to change the column for the field
	selected in the Field dropdown menu to the left into
	subheadings
Arithmetic	Arithmetic. Performs basic calculations (+, -, x, %) and
	concatenation of text.
	Calculated Fields KB

Descriptions of Sort, Group, and VG Check Boxes

4.4 Other Buttons on the Fields Tab

The 🖾 💭 🐨 , and 🄄 function buttons shown in Figure 4-1 are for the rows that they are in.



Izenda Reports User's Guide v6.5

Table 4 describes the function buttons of the **Fields** tab.

Icons	Control Name	Description
×	Delete button	Click this button to delete the row the button is on.
1	Insert Row button (above)	Click this button to insert a row above the row the button is on.
₽	Insert Row button (below)	Click this button to insert a row below the row the button is on.
‡	Move	Allows user to move a row up or down in the list
ŝ.	Advanced Properties	Advanced properties for that row.

Table 4 Function Buttons of Fields Tab

4.5 Functions Drop-Down

Functions allow you to perform calculations on the data and can be chosen from the dropdown menu based on the data type of the selected Field.

Article on SQL Functions (w3schools.com)

Text (String) Functions Available

Field	Description	Sort VG	А	Function
ShipCountry(nvarchar)	Ship Country			···· 🔽
				Count Count Distinct
Add Subtotals 🔲 Add Side	e Total			Maximum Minimum Group

Date/Time Functions Available

Field	Description	Sort VG	Α	Function
OrderDate(datetime)	 Order Date 			
Add Subtotals Add	Side Total	/ Preview	N	Count Count Distinct Maximum Minimum Group(Day) Group(Month) Group(Year) Group(Month Name) Group(Date) Group(Date) Group(Date) Group(Year & Month) Group(Year & MN) Group(Year & Quarter) Days Old Average(Days Old) Sum(Days Old) Group

Numeric Functions Available

Field	Description	Sort	VG	А	Function
OrderID(int)	 Order ID 				
	•				Average Count
Add Subtotals 🔲 Add Side Total			Count Distinct Maximum Minimum		
Quick Add Add Pivot Co	ntinue to Summary	Pre	eviev	V	Sum Sum Distinct Group
Functions Table

Function Name	Description
	No function used
Average	Average the values in a column
Count	Counts the number of values in a column
Count Distinct	Counts the number of distinct values in a column
Maximum	Takes Maximum value of a field
Minimum	Takes Minimum value of a field
Sum	Sums the values in a column
Sum Distinct	Sums the rows with distinct values in a column.
Group	Groups field values together for aggregating
Group(Day)	23; day of month
Group(Month)	3; instead of March
Group(Year)	2012
Group(Month Name)	July
Group(Date)	7/4/2012
Group(Day of Week)	Sun or Mon
Group(Year & Month)	2012 -07
Group(Year & MN)	2012 - Jul
Group(Week)	Jul 01 – Jul 07 (Sunday to Saturday of Week)
Group(Year & Quarter)	2012–Q3
Days Old	342 (Number of Days from Today's Date)
Sum(Days Old)	782 (Sums the Number of Days from Todays Date)

4.6 Format Dropdown Menu

The **Format** dropdown menu is a list of formats for the entries of the field selected in the **Field** dropdown menu directly to the left to appear in. Depending on the Field data type and the function, you will have differing options for formatting. The main two formats used will be available for all numbers and dates.

Field	Description	Sort	VG	А	Function	Format
ShipCountry(nvarchar)	+ of Countries				Count Distinct	0,000 🔽 🔄
	•					 0.000
Add Subtotals Add Sid Quick Add Add Pivot Cont	e Total inue to Summary	Pr	eviev	V		0,000.00 \$0.00 \$/100 0.0 0.00 0.000 0% % of Group (with rounding)
						% of Group Gauge Gauge (variable) Dash Gauge

Format Dropdown Menu

Numeric Formats Available

Format	Description	Examples
	Displays the number as it is stored in	500
	the database	
0,000	Displays as a whole number	500
0,000.00	Displays with two decimal places	500.00
\$0.00	Displays as currency with two	\$500.00
	decimal places	
\$/100	Displays the Number / 100 In	\$5.00
	currency format.	
0.0	Displays with one decimal place	500.0
0.00	Displays with two decimal places	500.00
0.000	Displays with three decimal places	500.000
0%	Displays the number as a percentage	50000%
% of Group (with	Same as % of Group but rounds to	100.0% (only one selected value,
rounding)	closest tenth (ex. 1.11547% would be	500)
	1.1%).	
% of Group	Calculates the percentage of the row	100%

	value to the entire group of values.						
Gauge	Shows value in a Linear Gauge						
	instead of a numerical value.		0.2	0.4	0.6	0.8	1
Gauge (variable)	Shows values in a Linear Gauge						
	which changes format due to values.						
Dash Gauge	Shows values in a Linear Gauge						
	which changes format due to values.						

Date/Time Formats Available

Field	Description	Sort VG	А	Function		Format	
OrderDate(datetime)	Order Date			Group(Date)	•	D&T(long)	1
					•	 Short Date Long Date	1
Add Subtotals 🔲 Add Side	e Total					Short Time Long Time	
			_			Full(short) Full(long)	
Quick Add Add Pivot Conti	nue to Summary	Preview	V			D&T(short)	
						D&T(long)	

Format	Description	Examples
	Displays the date as it exists in the database	7/4/2012 12:00:00 AM
Short Date	Displays date using the mm/dd/yyyy format	7/4/2012
Long Date	Displays the day of the week, month, numeric day, and the year	Wednesday, July 04, 2012
Short Time	Displays time as hh:mm AM/PM	12:00 AM
Long Time	Displays time as hh:mm:ss AM/PM	12:00:00 AM
Full(short)	Displays the Long Date format, followed by the Short Time format	Wednesday, July 04, 2012 4:34 PM
Full(long)	Displays the Long Date format, followed by the Long Time format	Wednesday, July 04, 2012 4:34:52 PM
D&T (short)	Displays the Short Date format, followed by the Short Time format	7/4/2012 4:34 PM
D&T (long)	Displays the Short Date format, followed by the Long Time format	7/4/2012 4:34:52 PM

Date Format Dropdown Table

4.7 Quick Add

Quick Add lets you add multiple fields to the report at one time by selecting from a list.

Field	Description	Sort	VG	А	Function	Format
	•					Please select the fields you'd like to add to your report.
	·					Orders
						CustomerID
Add Subtotals Add Sid	le Total					EmployeeID
						🗖 Freight
Quick Add Add Pivot Cont	inue to Summary					🗆 OrderDate
						🗆 OrderID
						RequiredDate
						ShipAddress
						ShipCity
						ShipCountry
						🗖 ShipName
						ShippedDate
						ShipPostalCode
						ShipRegion
						🗆 ShipVia
						OK Cancel

Figure x-x Fields Quick Add

•

🔁 🖆 🐺 🏚

4.8 Advanced Field Settings Button

To access the Advanced Field Settings, click on the Gear icon on the selected Field.

Hide this field	
Sort (z-a)	
Italic	
Bold	
Width	
Label Justification	M
Value Justification	
Subreport	
Drill-Down Style	
Url	example:Page.aspx?id={0}&value={1}
Subtotal Function	(Default)
Gradient Cells Shading	
Text Highlight	
Cell Highlight	example: 5 to 6:Blue;7 to 10:Red
Value Ranges	example: 0 to 10:Under 10;10 to 100:10-1
Expression	example:COUNT(A) + SUM(B)
	ОК

Setting Name	Description	Description				
Hide this field	Hides the field	Hides the field from display when report is ran				
Sort (z-a)	Sorts in descen	ding order				
Italic – Bold	Italic and Bold	for that field				
Width	Set the width o	f the column in number of pixels				
Label Justication	Sets the Colum	n label to the left, right, or middle of the row				
		Country 🛦				
	Canada					
Value Justication	Sets the Value	of the field to the left, right, or middle of the row				
		Country 🛦				
		Canada				
Subreport	Sets the drill-do	own child report				
	Subreport					
	ill-Down Style	Automatic				
		Subreports\Product Quantity				
	Url	Subreports\Top Products by State				
Drill-Down Style	Link – opens in	same browser window				
	Link (New Win	Link (New Window) – opens in new browser window				
	Embedded – er	mbeds the drill-down results into the main report				
	Popup – opens	the results on a pop-up screen				

Hide this field	
Sort (z-a)	
Italic	
Bold	
Width	
Label Justification	M
Value Justification	
Subreport	
Drill-Down Style	
UH	example:Page.aspx?id={0}&value={1}
Url Subtotal Function	example:Page.aspx?id={0}&value={1} (Default)
Subtotal Function	
Subtotal Function Gradient Cells Shading	
Subtotal Function Gradient Cells Shading Text Highlight	(Default)
Subtotal Function Gradient Cells Shading Text Highlight Cell Highlight	(Default)

SubTotal (Function)	Subtotal Function (Default)	-
	(Default)	
	adient Cells Shading (None)	
	Text Highlight Count Count Dis	stingt
	Cell Highlight Maximun	
	Minimum	
Gradient Cells Shading	Sets a gradient effect sh	ading the affected cells.
	Canada	
	Ship City	Total
	Montréal	\$1,394.22
	Tsawassen	\$793.95
	Vancouver	\$9.92
		\$2,198.09
Text Highlight	Highlights the text for the	ne given range. Can use any color
	from list on Styles Tab c	olor drop-down.
	Example: 5 to 6:Blue;7 t	o 10:Red
Cell Highlight	Highlights the cell for th	e given range.
Value Ranges	Let's you set text values	for number ranges, so if you set
	0 to 10: Under, Vancouv	ver would say Under from above
	Vancouver	Under
		\$2,198.09
Expression	Below, we use Sum (Fre	ight) * .35 to get the new column
	Argentina	
	-	eight Amount Freight * 35%
	16	\$598.58 \$209.50

4.9 Add Pivot

Add Pivot lets you generate analytical data grids and essentially adds extra pivot columns to the right side of the eport.

Records					
Field	Description	Sort VG A Fund	tion	Format	
	•			▼ ▼ 🔀 🕾 🕏	F ‡
Add pivot columns for	OrderDate	💌 using	Group(Year)	✓ function	
Calculate cell values on	Freight	💌 field wit	h Sum	✓ function and \$0.00	💌 format. 🖾 🕸
Add Subtotals	 CustomerID EmployeeID Freight OrderDate OrderID RequiredDate ShipAddress ShipCity ShipCountry ShipPostalCode ShipPostalCode ShipPegion ShipVia	Preview			

4.10 Admin Tips

4.10.1 Aliasing

Field can be aliased or hidden from the menu through the Izenda API.

Dynamic Fields lets you dynamically alter the field names in the drop down that the user sees on a per-user basis. This is useful for localization and when custom fields are used in your application.



4.10.2 Hidden Filters

Hidden Filters let you enforce row-level security on any field in the database on a per user / per role basis.

US Manager - Can only see U.S. data



Finance Report

Financial Analysis of Freight Costs

Ship City	Total	2010-Q3	2010-Q4	2011-Q1	2011-Q2	:2011-Q3	2011-Q4
Albuquerque	\$2,134.21	\$517.89	\$142.08	\$721.46	\$72.73	\$44.42	\$18,66
Anchorage	\$983.53	\$257.62	\$84.21	\$73.02	\$0.00	\$31.85	\$135.63
Boise	26,082,70	\$8:00	\$429.99	\$226.79	\$620,12	\$1,642.22	\$624.37

Administrator - Can see all data



Finance Report

Financial Analysis of Freight Costs

Canada

LLC 4

Ship City	Total	2010-Q3	2010-Q4	2011-Q1	2011-Q2	2011-Q3	2011-Q4	2012-Q1	2012-Q2
Montréal	\$1,394.22		\$88.89	\$374.68	\$203.27	\$669.63	\$57.75		\$10.00
Tsawassen	\$793.95		\$47.42	\$70.22	\$52.89	\$0.00	\$243.73	\$222.47	\$147.22
Vancouver	\$9.92	\$0.00	10.00	\$0.00	\$4.65	30.94	\$61.00	\$4.33	\$0.00
	\$2,198.09	\$0.00	\$136.31	\$444.90	\$270.81	\$670.57	\$301.48	\$226.80	\$147.22

Izenda.AdHoc.AdHocSettings.HiddenFilters["ShipCountry"] = GetUserCountry();

The example above only lets you see data from your country value in the database. You can set hidden filters to be a specific value or a range of values.

5.0 FILTERS TAB

In the **Filters** tab (Figure 5-1), the fields of the table/view chosen in the **Data Sources** tab can be filtered so that only pertinent entries appear in the table.

Reports Data Sources Fields	Summary Chart Gauge Map Misc Style Filters Preview
🖣 Back 🧱 Report List 🗋 New	🕞 Save 🎧 Save As 🚳 Print 🤮 🔊 🛛 🖼 🖉 🖉 🐼 📝 🔛 🚔 🖂 🌞 Results 1000 💌
Filter Field	Operator Value(s) Blank Param
	🔽 🔽 🗖 🖾 🖾 🖾 💭
Require	Parameters in Viewer
Preview	



5.1.1 Filter Field Dropdown Menu

The Filter Field dropdown menu is a list of the available fields in the table/view that have been selected or created in the **Data Sources** tab. Select the fields to filter. If joining tables/view, the title of the table/view that the field is from appears in parentheses next to the name of the field.

	Filter Field		
I			
	Address		
	City		
	CompanyName		
	ContactName		
	ContactTitle		
	Country		
	CustomerID		
	Fax		
	Phone 🔤		
	PostalCode 🔹 💌		

Figure 5-2 Field Dropdown Menu

5.1.2 Filter Operator Dropdown Menu and Value(s)



Operator Dropdown Menu and Value(s).

The Filter Operator Drop-down lets you select your operator based on the data type that has been selected in the filter. the filter fields available are only those under the Tables or Views selected in the Data Sources tab.

Data Type	Categories Available
Number	Comparison, Equivalence, Field Comparison
Text	All of the above and Text
Date/Time	All of the above and Date/Time

Description of Operator Dropdown Menu and Value(s)

5.1.3 Operator Categories

Comparison
ls Less Than
Is Greater Than
Between
lsn't Less Than
Isn't Greater Than
lsn't Between

Equivalence	Description
Equals	Enter the value(s) directly. Filter Field Operator Value(s) 1 ShipCountry Equals usa, uk
Equals (List)	Allows you to copy/paste a list of values from a .csv file
Equals (Autocomplete)	U UK USA Start typing the value and it will autocomplete for you
Equals (Select)	Select a single value from a drop-down list for a particular field
Equals (Multiple)	Select multiple values from the drop-down list Argentina Austria Belgium Brazil
Equals (Popup)	Select the values from a pop-up menu Argentina Austria Belgium Brazil Canada Denmark Finland France Germany
Doesn't Equals	
Doesn't Equals (Select)	
Doesn't Equals (Multiple)	
Doesn't Equals (Popup)	

Field Comparison	Description
Is Less Than (Field)	
Is Greater Than (Field)	
Equals (Field)	Multiple Field Joins – when needing to join on multiple fields or keys
Not Equals (Field)	

Available for All	
	No filter is set for the report.
Blank	Records that include blank or Null values will be included in the report.
lsn't Blank	Records that do not include blank or Null values will be included in the report.
Use Previous OR	How to Use Previous OR KB

Text	Description
Like	You can use the Like operator to find values in a field that match the
	pattern you specify. Like "sa" could return sam, samurai, or raisan.
Begins With	Begins with the values you set.
Ends With	Ends with the values you set.
Isn't Like	Isn't Like "sa" would not return any results with sa in it.

Date/Time	Description
Between (Calendar)	Operator Value(s) E Between(Calendar) July 4, 2012 Image: Calendar (Calendar) July 2012 Image: Calendar (Calendar) Su Mo Tu We Th Fr Sa Image: Calendar (Calendar) Su Mo Tu We Th Fr Sa Image: Calendar (Calendar) Su Mo Tu We Th Fr Sa Image: Calendar (Calendar) Su Mo Tu We Th Fr Sa Image: Calendar (Calendar) Image: Calendar (Calendar) Image: Calendar (Calendar) Image: Calendar (Calendar) Image: Calendar Image: Calendar (Calendar) Image: Calendar Image: Calendar Image: Calendar
In Time Period	Current Quarter Previous Quarter Current Year Previous Year Current Month Previous Month Current Week Previous Week Today Yesterday In The Future In The Future In The Past Next & Last 30 Days Last 7 Days You can use the standard values above or create your own custom timespans. Add New Time Period KB
Less Than Days Old	
Greater Than Days Old	
Equals Days Old	

5.1.4 Blank and Param Checkboxes



Filter Selection

The Blank and Param checkboxes (see image above) allow you to control the filtering behavior in the report viewer. They do not affect the "Preview" tab of the report designer.

Blank Checkbox: To use this, first set a "Filter Field" and then set an "Operator." If "Blank" is checked, the filter will return data which matches the "Value(s)" dropdown/textbox and also data which has a blank/null value in that field.

In the example above, if "Blank" is checked and then viewed in the report viewer, then the user would see all of the data where the "ShipCity" begins with "s" and all of the "Address" records which are blank or null.

Param Checkbox: To use this, first set a "Filter Field", set an "Operator", and then set "Value(s)", as in the previous example. This will display the filtered report in the report viewer and allow the user to change the filter value. If it is not checked, then the filter will not be visible to the end-user and the end-user will not be able to change the filter.

The example above shows a filter which will display a report in the report viewer where only the Address fields which begin with "s" will be shown. However, a user will be able to change the "s" to a "t" and update the report if desired.

5.1.5 Other Buttons on the Filters Tab

The \boxtimes , $\boxed{\cong}$, $\textcircled{\cong}$, $\textcircled{\cong}$ and 1 function buttons of the **Filters** tab are shown below.

lcons	Control Name	Description
×	Delete button	Click this button to delete the row the button is on.
-	Insert Row	Click this button to insert a row above the row the button is
	button (above)	on.
4	Insert Row	Click this button to insert a row below the row the button is
	button (below)	on.
\$	Move	Allows users to move a row up or down in the list.

Table 7 Descriptions of Buttons

5.1.6 Other Filter Features

Feature	Description
Show Filters in Report Description	Lists the Filters on the screen when accessed in the Report Viewer
Require Parameters in Viewer	Sets the number of filter parameters the user must set when accessing this report in the Report Viewer
Filter Logic (Conditional Filtering)	Ex: (1 OR 2) AND (3 OR 4)
	Advanced Filter Logic KB

Require ____ Parameters in Viewer

The example below requires the user to select at least two parameters before the report will run in the Report Viewer.

3	ShipCountry		Equals (Select)	▼ UK
4		•		•

Show Filters In Report Description

Require			•	Parameters	in Viewer				
Filter Lo	All At Least One The First The First Two]			
ShipCount	ry	•	Equals (Mult	tiple) 💌	 Argentina Austria Belgium Brazil		×	4	4
ShipCity		•	Equals (Mult	tiple) 💌	Buenos Aires		×	*	1 4
		•		•]		X	4	4

Please select the first two filters

Require The First Two Parameters in Viewer

6.0 SUMMARY TAB

In the **Summary** tab (below), a table can be created that summarizes the chosen fields using different functions (Ex: *Average, Count, Maximum,* and so on). You can also make a group of fields by choosing the **Group** option from the **Function** dropdown menu.

Most actions and properties available in the Summary Tab are available in the Fields Tab. The only difference is the removal of the Quick Add and Pivot capabilities, and addition of the Add Deltas checkbox

For more information on performing a Summary, refer to the Fields section.

Data Sources Fields Summa	ry Chart Chart	2 Chart3 Gauge M	ap Misc Style Filters	Preview
Report List New Report List	Save As 🎒 P	rint 🖑 👀 🐴 💋	💌 💓 📄 🔜 💌	🌣 Results 100 💌 🥝
Title		R	ecords	
Field	Description	Sort Function	Format	
ShipCountry	 Ship Country 	Group	•	🛨 🏟 🖷 🖻 💟 🖵
Freight	 Sum(Freight) 	Sum	▼ \$0.00	💌 🔀 🖆 🛱 🗘
	•		▼	💌 🔀 🖻 🗟 🛨
Add Subtotals				
Add Deltas				
Continue to Chart Preview				
		Summary Tab		

Ship Country	Sum(Freight) ▼
USA	\$13,771.29
Germany	\$11,283.28
Austria	\$7,391.50
Brazil	\$4,880.19
France	\$4,237.84
Sweden	\$3,237.60
UK	\$2,954.27
Ireland	\$2,755.24
Venezuela	\$2,735.18
Canada	\$2,198.09
Denmark	\$1,396.19
Switzerland	\$1,368.53

Summary Results

6.1 Deltas

Delta means "Change In".

Any time there is a change in a quantity that change is calculated by taking the later value for that quantity and subtracting from it the earlier value for that quantity.

This can be used in a report by selecting "Add Deltas" under the Summary tab. Select the "Add Deltas" checkbox under Summary tab.

Reports Data Sources Fields Filters	Summary Chart	Gauge	Misc Styl	e Prev	view			
Report List New Save Save	ls 👜Print 🗕 😡	B) 🛛	W 🗋 🗷		🖾 🏟 Preview	Result	s 1000 🛩	
Show 10 records								
Field	Description	Sort(a-z) S	Sort(z-a) VG	A Fur	nction	Fo	ormat	
CustomerName 🗸	Group(Customer Na			G	roup	۷.		*
OrderDate 🗸	Group(Year & MN)(] 🗌 G	roup(Year & MN)	¥ (Short Date	~
UnitPrice 🗸	Sum(Unit Price)			🗌 Si	um	v	\$0.00	*
						۷.		*
Add subtotals using (none) runction.								
Continue to Filters Preview								

Report view showing Summary with Delta.

Group(Customer Name)	Group(Year & MN)(Order Date)	Sum(Unit Price)
Alfreds Futterkiste	2007 - August	\$151.20
		(\$7.40) (-4.9%)
Alfreds Futterkiste	2007 - October	\$143.80
		(\$7.80) (-5.4%)
Alfreds Futterkiste	2008 - January	\$136.00
		\$5.20 (3.8%)
Alfreds Futterkiste	2008 - March	\$141.20
		(\$71.70) (-50.8%)
Alfreds Futterkiste	2008 - April	\$69.50
		\$12.10 (17.4%)
Ana Trujilo Emparedados y helados	2006 - September	\$81.60
		\$60.90 (74.6%)
Ana Trujilo Emparedados y helados	2007 - August	\$142.50
		(\$78.50) (-55.1%)
Ana Trujilo Emparedados y helados	2007 - November	\$64.00
		\$78.00 (121.9%)
Ana Trujilo Emparedados y helados	2008 - March	\$142.00
		(\$108.40) (-76.3%)
Antonio Moreno Taquería	2006 - November	\$33.60

Group(Customer Name) 🔻	Group(Year & MH)(Order Date)	Sum(Unit Price)
Alfreds Futterkiste	2007 - August	\$151.20
Alfreds Futterkiste	2007 - October	\$143.80
Alfreds Futterkiste	2008 - January	\$136.00
Alfreds Futterkiste	2008 - March	\$141.20
Alfreds Futterkiste	2008 - April	\$69.50
Ana Trujilo Emparedados y helados	2006 - September	\$31,60
Ana Trujilo Emparedados y helados	2007 - August	\$142.50
Ana Trujilo Emparedados y helados	2007 - November	\$54.00
Ana Trujilo Emparedados y helados	2008 - March	\$142.00
Antonio Moreno Taquería	2006 - November	\$142.00 \$33.60

Result: The Deltas() show the change in the Unit Price over the period of time.

7.0 CHART TAB

In the **Chart** tab, a chart can be created using the data in the table/view selected on the **Data Sources** tab.

Data Sources	s Fields	Summary	Chart Char	t2 Chart3	Gauge Ma	ap Misc Sty	le Filters Preview
Report List	🗋 New 🕞	Save 📕 Sav	e As 🥞 Print	1 SQL E		1 🛾 📾 🖂	l 🌣 Results 100 🖵 🥝
Chart Type	🔻						
Continue to	Trend Pie Plot						
	Bar Funnel						

Chart Tab

The Charts Tab lets you create different variations of charts, including:

Trend Pie Plot Bar Funnel

You can have multiple charts in one report or put multiple charts of summary information on a Dashboard to show key business metrics.

7.1.1 None Selection

When the chart type is **None (...),** no chart appears.



7.2 Trend Selection

Chart Type	Trend 💌			
Title Order	s by Month		Reco	rds
Date	OrderDate	▼ Function	Group(Month Name)	💌 Sort 🗷 Sort (z-a) 🔲
Value	OrderlD	 Function 	Count Distinct	🔹 Sort 🔲 Sort (z-a) 📃
Separator	OrderDate	 Function 	Group(Year)	•
Show Leg	end 🔽			
Show Val	ue Labels 🔲			
Smooth				
Label Title	e (Bottom)			
Value Title	e (Left)			
Scale %				

Trend Selection

The table below describes the features of the **Trend** chart type selection.

Features	Description
Trend chart	By choosing chart type Trend , the chart appears in Trend format.
Date dropdown menu	Will show all of your available fields that are dates
Value dropdown menu	Choose any value from the dropdown list.
Show Legend	2010 2011 2012
Show Value Labels	31 32 33 30 22 14
Smooth	Smoothing of the data points, as seen in graph Figure x-x above
Label Title (Bottom)	Apr May Jun Jul Aug Sep My Chart
Value Title (Left)	Inserts a label centered at the bottom of the chart ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
Scale %	Allows you to scale your chart to a percentage of the original size

7.2.1 Creating a Trend Chart showing Orders by Month

Design This Report	<u>t</u>				
Edit This Report					
Chart T	ype Trend 💌				
Title O	rders by Month			Records	
Date	OrderDate	 Function 	Group(Month Name)	▼ Sc	ort 🔽
Value	OrderID	- Function	Count Distinct	▼ Sc	ort 🔳

Orders by Month



- 1. From the ReportList.aspx page Click on "Design a New Report". Or if you are in report designer click the "New" icon. Now we need to select a data source.
- 2. Click on the "Data Sources" tab. Then click on the drop down box and choose "Orders".
- 3. Click on the "Chart" tab. This is where we create charts.
- 4. Click on the "Chart Type" drop down box and choose "Trend" for the chart type.
- 5. Click on the "Date" drop down box and select "OrderDate" for our date field.
- 6. For the "Date" function select "Group (Month Name)" from the drop down box.
- 7. Click on the "Value" drop down box and select "OrderID" for our value field.
- 8. For the "Value" function select "Count Distinct" from the drop down box.
- 9. Click on the "Preview" tab so you can view the report. Let's add a title to this report.
- 10.10. Click on the "Misc" tab. In the "Title" text box enter "Orders by Month"
- 11. Click the "Preview" tab. Now the Report is Titled. Let's Save it.
- 12. Click on the "Save as" tool bar button, name your report and enter the category you want the report to be shown under. Click OK. The Izenda report is saved.

7.2.2 Creating an Advanced Trend Chart Report

Design This Report Edit This Report

In this example, we will modify the trend chart created in 7.2.1 above, by separating the data by year and smoothing out the graph.



Instructions

- If you did not just complete lesson 2-1 then you will need to load it. This can be done from the reports list or report designer. It will be under the "Training" category and labeled "Lesson 2-1". In report designer just click the name. In reports list you click the pencil next to the name and this will load the report in report designer.
- 2. Click on the "Chart" tab.
- 3. Click on the "Show Advanced" button.
- 4. Click on the "Separator" drop down box and select "OrderDate"
- 5. Click on the "Separator" "Function" drop down box and select "Group (year)" this is how the data will be separated.
- 6. Notice that the legend check box is selected.
- 7. Click on the "Smooth" check box.
- 8. Click the "Preview" tab. Now the Trend Chart has been enhanced and separated by year. Let's update the title for this report.
- 9. Click on the "Misc" tab.
- 10. In the "Title" text box enter "Orders by Month and Year"
- 11. Click the "Preview" tab. Let's Save it.
- **12.** Click on the "Save as" tool bar button, name your report, for example "Lesson 2-2", and enter the category you want the report to be shown under, for example "Training", click ok. The Izenda report is saved.

7.3 Pie Chart

The images below show the **Pie** (chart) selection menu of the **Chart** tab.

Reports Data Sources Fields Summary Chart Gauge Map	Misc Style Filters Preview
🛛 Back 🗐 Report List 🗋 New 🍃 Save 🍃 Save As 🚳 Print 🤮	🕺 🖳 🗷 🗷 😿 😫 📾 🖂 🌞 Results 1000 🔽
Chart Type Pie	
Title	Records
Label OrderDate 🔽 Function Group	▼ Sort □
Value OrderID 🔽 Function Count Disti	nct 💽 Sort 🗖
Advanced Properties	
Continue to Gauge Preview	



The table below describes the **Pie** chart selection.

Features	Description
Pie chart	By choosing chart type Pie , the chart appears in
	Pie format.
Label dropdown menu	Choose any label from the dropdown list.
Value dropdown menu	Choose any value from the dropdown list.

Description of Pie (Chart) Selection

7.3.1 Creating a Pie Chart showing the percentage of orders from each country

Design Thi	<u>s Report</u>				
Edit This R	<u>eport</u>				
Chart Type	e Pie 💌				
Title Order	s by Country			Records	7
	s by country			Incords	
Label	ShipCountry	 Function 	Group	▼ Sor	t 🔲 Sort (z-a) 🔳
Value	OrderID	- Function	Count Distinct	▼ Sor	t 🔽 Sort (z-a) 🔲

Orders By Country



Instructions

- 1. From the ReportList.aspx page Click on "Design a New Report". Or if you are in report designer click the "New" icon. Now we need to select a data source.
- 2. Click on the "Data Sources" tab. Then click on the drop down box and choose "Orders".
- 3. Click on the "Chart" tab. This is where we create charts.
- 4. Click on the "Chart Type" drop down box and choose "Pie" for the chart type.
- 5. Click on the "Label" drop down box and select "ShipCountry" for our label field.
- 6. For the "Label" function select "Group" from the drop down box.
- 7. Click on the "Value" drop down box and select "OrderID" for our value field.
- 8. For the "Value" function select "Count Distinct" from the drop down box. Let's sort the values so the countries with the most orders will be together.
- 9. Click on the sort checkbox for the value field.
- 10. Click on the "Preview" tab so you can view the report. Let's add a title to this report.
- 11. Click on the "Misc" tab.
- 12. In the "Title" text box enter "Orders By Country"
- 13. Click the "Preview" tab. Now the Report is Titled. Let's Save it.
- 14. Click on the "Save as" tool bar button, name your report, for example "Lesson 4-1", and enter the category you want the report to be shown under, for example "Training", click ok. The Izenda report is saved.

7.3.2 Creating an Advanced Pie Chart Report

Design This Report Edit This Report

In this lesson, we will modify the pie chart created in the pie chart above in Figure x-x by separating the data by year so we can see which countries had the most orders each year.

Chart Type	Pie	•					
Title Order	s by Count	try and Year			Records	10	
Label	ShipCoun	try	- Function	Group		✓ Sort	Sort (z-a)
Value	OrderID		 Function 	Count Distinct		▼ Sort	🗷 Sort (z-a) 🔳
Separator	OrderDate)	 Function 	Group(Year)		•	
Show Leg	end	\checkmark					
Show As	3D						
Explode la	argest slice						
Show Per	centage	V					
Show Val	ue Labels						
Show Slic	e Labels	\checkmark					
Combine]	Bottom %	0					
Chart Typ	e	Doughnut 💌					
Scale %							
Target rep	ort						

Instructions

- If you did not just complete lesson 4-1 then you will need to load it. This can be done from the reports list or report designer. It will be under the "Training" category and labeled "Lesson 4-1". In report designer just click the name. In reports list you click the pencil next to the name and this will load the report in report designer.
- 2. Click on the "Chart" tab.
- 3. Click on the "Show Advanced" button.
- 4. Click on the "Separator" drop down box and select "OrderDate"
- 5. Click on the "Separator" "Function" drop down box and select "Group(Year)" this is how the data will be separated. Let's limit the number of records shown to 10.

- 6. Click on the Show records textbox. Enter 10. Let's add a legend.
- 7. Click on the "Legend" check box to select it. Let's explode the largest slice from each year.
- 8. Click on the "Explode Largest Slice" check box. Let's add percentages to the pie graph.
- 9. Click on the "Show Percentage" check box. Let's also change the type of pie chart.
- 10. Click on the "Chart Type" drop down box and select "Doughnut."
- 11. Click the "Preview" tab. Now the Pie Chart has been enhanced to show the countries with the most orders separated by year. Let's update the title for this report.
- 12. Click on the "Misc" tab.
- 13. In the "Title" text box enter "Orders By Country and Year"
- 14. Click the "Preview" tab. Let's Save it.
- 15. Click on the "Save as" tool bar button, name your report, for example "Lesson 4-2", and enter the category you want the report to be shown under, for example "Training", click ok. The Izenda report is saved.



7.3.3 Plot Selection

Chart Type Plot • Title Records Х OrderDate Function Group(Year & MN) 💌 Sort 🔽 Sort (z-a) 📃 Y OrderID Function Count Distinct • Function • Separator Show Legend 🔽 Connect 1 Auto-Scale Scale % Advanced Properties Continue to Chart2 Preview **Plot Selection** 80.00 60.00 . 40.00 20.00

The images below show the **Plot** (chart) selection of the **Chart** tab.

The table below describes the **Plot** (chart) selection.

2010 - Dec

0.00

Features	Description
Plot chart	By choosing chart type Plot , the chart appears in
	Plot format.
X-axis dropdown menu	Choose any field from the dropdown for the X-
	axis.
Y-axis dropdown menu	Choose any field from the dropdown for the Y-axis.

2011 - May

2011 - Oct

2012 - Mar

Description of Plot (Chart) Selection

7.4 Bar Charts

The images bellow show the user selection parameters for a simple Bar Chart which counts the number of distinct orders by country.

	Chart	Ту	pe	Bar	r	•																	
	Title																		Rec	ords	\$		
	Labe	IS	hipC	ount	ry					•	Fun	ctio	۱ (Grou	р					•	Sort		
	Value	e 0	rder	D						•	Fun	ictio	ا	oun	t Dis	stinct	t			•	Sort		
	Adva	ince	ed Pr	oper	ties]																	
	Cont	inue	e to	Char	t2	Pr	evie	w															
140.00									Τ														
120.00	+						\vdash	+	+	+		+											
100.00							\vdash	+	+	+		+											
80.00							\vdash	+	+	+		+											
60.00·	+		-	t'			\vdash		+	+													
40.00				H			t.			+			\square										
20.00					-					H								h					
0.00		5	5	2 7	3	> 1	p	8	5	- 2	.e	ž	P P	-	; 7	2 2	2 5	9 1	Е.	- -	2 -Z	4 9	
	- Finland -	-	1-1	Rezd			Switzerland	Mexico	Sweden	Argentina	Austria		Poland	Canada	Ireland	None	France		neigum.	ulanezuelu Venezuelu	Veirezueia - Denmark	Portugal	

The table below describes the **Bar** (chart) selection entries.

Features	Description					
Bar chart	By choosing chart type Bar, the chart appears in					
	Bar format.					
Label dropdown menu	Choose any label from the dropdown list.					
Value dropdown menu	Choose any value from the dropdown list.					

Description of Bar (Chart) Selection

7.4.1 Example Bar Chart

Chart Type Bar 💌

Title Orders by Country b	oy Year			Records]
Label ShipCountry		- Function	Group		 Sort 	🔲 Sort (z-a) 🔲
Value OrderID		 Function 	Count Distinct		 Sort 	🔲 Sort (z-a) 🔽
Separator OrderDate		 Function 	Group(Year)			
Line Value		 Function 			•	
Show Legend	V					
Show Pareto						
Stacked	\checkmark					
Horizontal	\checkmark					
Shade Area Under Line	e 🗖					
Label Title (Bottom)	My Test Report					
Value Title (Left)	My left Title					
Value Title (Right)	My Right Title					
Scale %	<mark>150</mark>					
Target report			•			

Advanced Properties



Orders by Country by Year

7.4.2 Create a Bar Chart Showing the Top 15 Countries

Design This Report Edit This Report

http://www.izenda.com/demo/ReportViewer.aspx?rn=Training\\Lesson+3-1

Chart Type Bar 💌		
Title Top 15 Countries		Records 15
Label ShipCountry	Function Group	💌 Sort 📃
Value CustomerID	Function Count Distinct	💌 Sort 🔽
Advanced Properties		
Continue to Chart2 Preview		

Top 15 Countries



Instructions

- 1. From the ReportList.aspx page Click on "Design a New Report". Or if you are in report designer click the "New" icon. Now we need to select a data source.
- 2. Click on the "Data Sources" tab. Then click on the drop down box and choose "Orders".
- 3. Click on the "Chart" tab. This is where we create charts.
- 4. Click on the "Chart Type" drop down box and choose "Bar" for the chart type.
- 5. Click on the "Label" drop down box and select "ShipCountry" for our label field.
- 6. For the "Label" function select "Group" from the drop down box.
- 7. Click on the "Value" drop down box and select "CustomerID" for our value field.
- 8. For the "Value" function select "Count Distinct" from the drop down box. Let's limit the number of Countries listed on the graph to 15.
- 9. Click on the Show records textbox. Enter "15". Let's sort the data so we get the Top 15 countries sorted by number of customers.
- 10. Click on the sort checkbox for the value field.
- 11. Click on the "Preview" tab so you can view the report. Let's add a title to this report.
- 12. Click on the "Misc" tab.
- 13. In the "Title" text box enter "Top 15 Countries"
- 14. Click the "Preview" tab. Now the Report is Titled. Let's Save it.
- 15. Click on the "Save as" tool bar button, name your report, for example "Lesson 3-1", and enter the category you want the report to be shown under, for example "Training", click ok. The Izenda report is saved.

7.4.3 Create a Bar Chart with a Separator

Design This Report Modify This Report

Chart Type	Bar 💌				
Title Top 15	Countries by Year		Records	15	
Label	ShipCountry	- Function Group		▼ Sort ■	🛛 Sort (z-a) 🔲
Value	CustomerID	- Function Count Dist	tinct	- Sort 🛛	🛛 Sort (z-a) 📃
Separator	OrderDate	 Function Group(Year 	ar)	•	
Line Value		- Function		•	
Show Lege	nd 🔽				



Instructions

In this example, the goal is to modify the bar chart created in the preceding example by separating the data by year so we can see who the top customers were each year.

- If you did not just complete lesson 3-1 then you will need to load it. This can be done from the reports list or report designer. It will be under the "Training" category and labeled "Lesson 3-1". In report designer just click the name. In reports list you click the pencil next to the name and this will load the report in report designer.
- 2. Click on the "Chart" tab.
- 3. Click on the "Show Advanced" button.
- 4. Click on the "Separator" drop down box and select "OrderDate"
- 5. Click on the "Separator" "Function" drop down box and select "Group (Year)" this is how the data will be separated.
- 6. Notice that the legend check box is selected.
- 7. Click the "Preview" tab. Now the Bar Chart has been enhanced to show the countries with the most customers separated by year. Let's update the title for this report.
- 8. Click on the "Misc" tab.
- 9. In the "Title" text box enter "Top 15 Countries by Year"
- 10. Click the "Preview" tab. Let's Save it.
- 11. Click on the "Save as" tool bar button, name your report, for example "Lesson 3-2", and enter the category you want the report to be shown under, for example "Training", click ok. The Izenda report is saved.

7.4.4 Other Bar Chart Options

Show Pareto

In a bar graph, the bars are plotted in order of increasing x. The heights of the bars fell where they will.

Top 3 Countries



In a pareto chart, the bars are plotted in order of decreasing height, so the tallest bar is on the left, and the bars get shorter as you move to the right.

Top 3 Countries



Stacked

Stacked bar graph is a graph that is used to compare the parts to the whole. The bars in a stacked bar graph are divided into categories. Each bar represents a total.

If the Stacked bar graph feature is not turned on, please contact your system administrator and ask them to validate this setting, AdhocSettings.AllowStackedBarChart = true;.

Chart Type	Bar 🔻							
Title					Records			
Label	ShipCountry	•	Function	Group		▼ Sort	Sort (z-a)	
Value	OrderID	•	Function	Count		 Sort 	Sort (z-a)	V
Separator	OrderDate	•	Function	Group(Year)		•		
Line Value		•	Function			•		
Show Lege	nd							
Show Pare	to							
Stacked								



*Report filtered by selected countries to simplify

Horizontal



The selected bar chart will display the Label horizontally.

Shade Area Under Line

You can use the Share Area Under Line check box when you have a Line Value selected on the same Bar Chart.



7.5 Funnel Chart

The images below show the **Funnel** chart selection of the **Chart** tab.

Chart Type Funnel -			
Title			Records
Label ShipCountry	- Function	Group	🔹 Sort 🗷 Sort (z-a) 🔲
Value OrderID	▼ Function	Count Distinct	
Show Percent 🗹			
Scale %			
Target report			
Advanced Properties			
Continue to Chart2 Preview			
			- Argentina - 3.8 %
			Austria - 9.5 %
			Canada - 7.1 %
			Germany - 28.8 %
			UK - 13.2 %
		7	USA - 28.8 %

8.0 GAUGE TAB

In the Gauge tab, you can add a panel of gauges to a report.

There are four different types of gauges you can create:

Radial



Animated Half Circle

Animated Half Circle with KPI's





Linear

USA



USA





8.1 Create First Four Gauges Alphabetically Counting Orders by Country

The Report below is showing the first 4 gauges based on the alphabetical order of the selected countries.

Title My G	auge Results 4
Name ShipCountry	
Value Order	rID Function Count Distinct
Sort	▼ Function ▼ Sort (z-a)
Minimum	10 Maximum 150
Color	0%:CornflowerBlue;100%:AliceBlue
Gauge Style 💿 Radial 🔘 Radial 2 🔘 Animated Half Circle 🔘 Linear	
Target report	
Continue to Misc Preview	

Gauge tab contents


8.2 Creating the Top 4 Orders by Country Gauges

In the following example, you will see the gauges of the four countries with the greatest number of orders.

You can add four different types of gauges



My Gauge



8.3 Changing Color Ranges

To change color ranges for the gauge, enter in a percentage range for each color, or enter a range of specific values.



OR

Color	0 to 50: Red; 50 to 100: Yellow; 100 to 150: Green
Gauge Style	Radial Radial 2 Animated Half Circle Linear



8.3.1 KPI's and auto-updating data with Animated Gauges

The Animated Half Circle opens up a few more options under the Gauge Style row. With these new options, you can select the KPI Low and High, and select whether the Red values will be hidden, on the low side, or on the high side. You can also select how update the date updates.

Title	My Ga	luge		Results	4 💌			
Name	ShipC	ountry	•	•				
Value	Order	D	•	Function	Count Distinct	-		
Sort	Order	D	•	Function	Count Distinct	•	Sort (z-a) 🗵	
Minim	um	10		N	laximum 150			
Color		0 to 50: Re	d; 50 to 100: Y	'ellow; 100	to 150: Green			
Gauge	e Style	Radial	Radial 2	Anim	ated Half Circle	© Linear		
KPI L	.ow	75						
KPI H	ligh	125						
Updat	te	3		sec				
Red V	alues	Mide	Output Low	Migh				
Target Contir	report nue to		view	•				
My German		ge	USA		ик		Austria	
C of	115	85	e the second sec	85		85	9 C	15
	1	22		122		56	4	0

8.4 Gauges with Drill-Down Effects

11	5		11	15	
	150_ (150_ (
122.00	2738 G W	0.000			28.00
	Cactus Comic				
Argentina	City	Country	Phone	Amount	
10	Buenos Aires		(1) 135-5555	\$0.33	
45	Buenos Aires		(1) 135-5555	\$1.10	
	Buenos Aires	-	(1) 135-5555	\$2.84	
80	Buenos Aires	-	(1) 135-5555	\$17.22	
	Buenos Aires		(1) 135-5555	\$19.76	
11	Buenos Aires	Argentina	(1) 135-5555	\$31.51	
			10	\$72.76	
	Océano Atlán	tico Ltda.			
	City	Country	Phone	Amount	
16.00	Buenos Aires	Argentina	(1) 135-5333	\$1.27	
	Buenos Aires	Argentina	(1) 135-5333	\$8.12	
	Buenos Aires	Argentina	(1) 135-5333	\$29.83	
	Buenos Aires	Argentina	(1) 135-5333	\$49.56	
	Buenos Aires	Argentina	(1) 135-5333	\$217.86	
				\$306.64	
	Rancho gran	de	05	1	1
	City	Country	Phone	Amount	
	Buenos Aires		(1) 123-5555	\$3.17	
Contact us:			(1) 123-5555	\$22.57) - 26 Executive Parl
	Buenos Aires		(1) 123-5555	\$38.82	
Home Blog Sitemap	Buenos Aires		(1) 123-5555	\$63.77	
Home Diag Ditemap	Buenos Aires		(1) 123-5555	\$90.85	
		5	1	\$219.18	
	Y		1		1)Car
THE REPORT	*	100 D	1.475.1.1		×

9.0 MISC TAB

In the Miscellaneous Tab (Misc Tab), you can add a title, description, header and footer to the report, all with left, middle, or right justification. Sharing and Scheduling are the two most popular features under this tab.

Reports	Data Source	s Fields	Summary	Chart	Gauge	Мар	Misc	Style	Filters	Preview		
Report	List 🗋 New	Save	Save As	🔒 Print	sol 🖲) 💋			📷 । 🖂	🌣 R	esults.	1000 🗖
Report H	leader Image	Justificatio	n: M									
Title												
												L
Descripti	on											
												L
Header												
												L
Footer												
												L
Share W	Vith		Rights									
Everyon	e	•	None			•						
Owner	DefaultAdmini	strator					Drill-D	own Ke	у			•
Schedule							Repe	at type		Send	Ema	il as
12:00		👻 Janu	ary 🔻 2	009 👻	ALMT +6	•			-	Lin	(
Recipient	S											
												11
Continue	eto Style F	Preview										

Misc tab contents

Feature	Description
Report Header Image Justification	Allows you to move the Report Header to the left,
	middle or right.
Title	Enter the title of the report.
	Examples below use "INSERT TEXT" as input.
	INSERT TEXT
	Ship Country Finland USA
Description	Enter a description for the report.
	INSERT TEXT
	Ship Country Finland USA
Header	Allows a user to set a report header.
	INSERT TEXT
	Ship Country Finland USA
Footer	Allows a user to set a report footer.
	Denmark Portugal
	INSERT TEXT

9.1 Share With & Rights

Share With

Everyone	-
Everyone	
Marketing	
Sales	
Bob	
Accounting	
Lisa	

None	-
None	
Full Access	
Read only	
View Only	
Locked	

Share With allows you to share reports with:

- Everyone
- Other roles like Marketing or Sales
- Other users like Bob or Lisa

Your system administrator will likely determine the list of who you can share with that populates in your drop-down menu. Select who you would like to Share With and determine the level of access you will give them to this report. The table below describes the characteristics of each option for selecting the appropriate rights.

Rights	Description
None	Do not share this report with anyone
Full Access	Can share with every user and group
Read only	Can make changes to Save As but cannot
	modify the original
View Only	Cannot make any changes to the report
Locked	Locks the report down so no one else has
	access to it

9.1.1 Setting Sharing Permissions

The Share With and Roles properties allow reports to be easily shared amongst users and group of users. The values SharedWithValues populate the "Share With" drop-down found on the "Misc" tab in the Izenda Reports application. The "Rights" drop-down which is next to the "Share With" drop-down allow the user to assign Full Access, Read Only, View Only, or None permissions to the selected choice in the "Share With" drop-down.

Roles on a per-user basis are specified by the CurrentUserRoles properities. If a user is given a role, then he will have access to the reports which are shared with that role.

AdHocSettings.CurrentUserRoles and AdHocSettings.SharedWithValues are per-user properties.

AdHocSettings.CurrentUserIsAdmin = false; AdHocSettings.CurrentUserName = "Bob"; AdHocSettings.CurrentUserRoles = new string[] { "Sales" }; AdHocSettings.SharedWithValues = new string[] { "Bob", "Sales", "Bob Smith", "Admins", "Sam Jones" };

In the example above, Bob is a non-admin user who is assigned to the Sales role, therefore, any reports which are "Shared With" the "Sales" role will be accesible by Bob. Bob will only be able to share reports with the shared with values shown in the sample.

9.2 Drill-Downs

Drill-down Video KB



To create a drill-down report, you can start by designing the main report, but in order to be able to select a drill-down report, that sub-report must first have a drill-down key to show up in the selection list. Once the sub-report is available in the selection list for your Sub-Report or Target Report, meaning it has been defined what Drill-down key will link the two reports, you can select you drill-down type.

Example

Design Sub-Report

Field	Description	Sort VG A Function	Format
ShipCountry	 Ship Country 	Group	•
ShipCity	 Ship City 	Group	• •
Freight	 Count(Freight) 	Count	▼ \$0.00 ▼

Set the Drill-Down Key under the MISC tab

Share V	Vith	Rights					
Everyon	ie	Full Access		•			
Owner	DefaultAdministrator				Drill-Down Key	ShipCountry	•
Design n Field	nain report	Description	Sort VG	A Function		Format	
ShipCour	ntry	 Ship Country 		Group		▼	•
		•				•	•

Click on Advanced Field Settings in Main Report



Select the Subreport

Subreport	
Drill-Down Style	Automatic Main Report
Url	Sub-Report

Select the Drill-Down Type

Subreport	Sub-Report
Drill-Down Style	Link
Url	 Link
Subtotal Function	Link(New Window) Embedded
Gradient Cells Shading	Рорир

Option	Description				
Link	Opens in the same browser window				
Link(New Window)	Opens in a new browser window				
Embedded	Embeds within the main report field selected				
Рорир	Displays as a pop-up window. You must click on				
	the image to clear it from the screen.				
Hover	Shows the sub-report on the same screen as an				
	overlay when you hover over the current field,				
	chart, or gauge.				

9.2.1 Passing Filters from Master Report to Sub-Report

There is a property that your system administrator can set to allow the filters applied in the parent report to automatically pass through to the child report (master report to sub-report). It is called InheritFiltersinSubreports, and gets or sets the value indicating whether filters will be inherited in sub-reports.

Listed below is an example of where you would set this in the code.

```
public class CustomAdHocConfig : Izenda.AdHoc.DatabaseAdHocConfig
{
    // Configure settings
    // Add Custom Setting below license key and connection string setting
    public override void ConfigureSettings()
    {
        AdHocSettings.SqlServerConnectionString = "INSERT_CONNECTION_STRING_HERE";
        //AdHocSettings.VisibleTables = new string[] { "VIEW1", "TABLE2" };
        AdHocSettings.InheritFiltersInSubreports = true;
    }
}
```

}

9.3 Scheduler

The scheduling controls may not be available to all users. If you do not see them, please speak with your system administrator.

Schedule:	Set the schedule date and time.
Repeat Type:	Set the repeat frequency.
Send Email As:	Sets the format in which the email is sent.
Recipients:	Enter a comma separated list of recipients.

Share With	Rights		
Everyone	Full Access	Every Day Every Weekday Every Week Every Two Weeks	
Owner DefaultAdministrator		Every Month Every Quarter Alert Hourly	
Schedule 08 : 00 AM • 1 • Septe	ember 💌 2012 💌 EST -5 💌	Alert Daily Every Month	Send Email as
Recipients			
jsmith@abc.com; sales@abc	.com		

9.3.1 How to Set Up the Izenda Scheduler

How to setup and use the Izenda Scheduler

The scheduler requires the use of the IzendaScheduler.exe file, which is found in the root of the directory to which you installed Izenda Reports. You then need to add a scheduled task to your system which runs every minute. The task uses the IzendaScheduler.exe to access a page in our application which determines if any reports need to go out (run_scheduled_reports= on rs.aspx page). The IzendaScheduler.exe file does not actually send out the files or access anything else except for the specific page in our application which you give the exe file as a parameter.

To turn on the scheduler controls for certain users, use the show scheduler controls property. **Izenda.Adhoc.AdHocSettings.ShowScheduleControls = true**;.

Repeat Type

Every Day	
Every Weekday	
Every Week	
Every Two Weeks	
Every Month	
Every Quarter	
Alert Hourly	
Alert Daily	
Every Month	•

Select a time frame like Every Month.

Or select an Alert, which will send an email if filter parameters are not met.

You can also enter in custom time spans, for example, in cases of Fiscal vs. Yearly Quarters - KB Article

Send Email as

	Link
	Embedded
	PDF
	CSV
1	HTML
	Excel(XLS)
1	Word(RTF)
	Link 💌

You can send the email as a number of attachments, like PDF, Word, & Excel, as a Link, which shows a link to click on in the email, or as Embedded, which embeds the report in the body of the email.

9.3.2 Report Owner: Setting the User and Admin States

You can select the owner of the report. By default, it is set as the DefaultAdministrator. DefaultAdministrator has admin priveleges and will be able to see and change all other users' reports. In most cases, your system administrator will set this property for you and might even hide it from the scheduler screen.

Setting the user and their access rights

By default, Izenda Reports includes a user account called "defaultadministrator". The setting "CurrentUserIsAdmin" is used to set whether or not the current user is an Administrator user. If set to true, then Ad Hoc allows the current user to have Administrator privileges. These privileges are the ability to see all reports both shared and private, change the owner of a report, and over write the Read only reports. If set to false, then the user can only see shared reports. In this case, we must also set the "CurrentUserName" property to the user's name, which for example, can come from the session variable.

After setting the user name and whether or not the user is an Administrator, one can set the database, table, view, or field level access.

Setting an Administrator user

C# or VB.NET

Izenda.AdHoc.AdHocSettings.CurrentUserIsAdmin = true;

Setting the user name

C# or VB.NET

Izenda.AdHoc.AdHocSettings.CurrentUserName = "Bob";

10.0 STYLE TAB

In the Style tab, you can customize the look and feel of the report that will be displayed. You can change the color of the border, header, and rows, as well as the order the report items.

Reports Data Sources	Fields	Summary	Chart	Gauge	Мар	Misc	Style	Filters	Prev	view
✓ Back ■Report List	New	Save ,	Save As	. 👩 Print	: <u>R</u>	sol E	4) 💌	2 🛛	W	ੂ
Border color	He	ader color	-			oregrou	nd colo			
(Default)	• (D	efault)			efault)			-		
Item color	Iter	n foreground	d color	Alt	ternatii	ng item (color			
(Default)	• (D	efault)		• (D	efault)			-		
Restore Default Sample grid Number Letter										
1 A 2 B										
□ Landscape printing ☑ Show page number ☑ Show date and time ☑ Use pagination in web □ Add bookmark for eac □ Page Break After Visu □ Minimize Grid Width Visual Group Style	ch visuai 1al Grou									
Comma Delimited 💌										
Items Per Page (In Viewe	r)									
10000	í									
Report order										
Chart 📑 🖡										
Gauges 📑 🖡										
Summary 📑 👎										
Detail 📑 🖡										
Maps 📑 🖡										
Field Value column pairs										
2	7									
-	_	aha stula								
□ Show main report in 1			da.							
☐ Show summary report	it in riel	u value sty	le							
Continue to Filters	Previe	9W								
		_								

Style tab contents

10.1 Style Properties

When you change the properties of the various colors within the report, the sample grid below can be used to see the differences.

The colors which can be changed are: Border color, Header color, Header foreground color, Item color, Item foreground color, and Alternating item color.

Data Sources Fields	Summary Chart Chart2 Ch	art3 Gauge Map Misc Style Filter			
Report List New	Save Save As 🍄 Print) 👊 🖳 🗷 💌 🔛 🔜 🔛			
Border color	Header color	Header foreground color			
Yellow Brown AliceBlue					
Item color Item foreground color Alternating item color					
LightCyan	 DarkSlateBlue 	 Aquamarine 			
		(Default)			
Restore Default		Transparent			
		AliceBlue AntiqueWhite			
Sample grid		Aqua			
Number Letter		Aquamarine			
1 A		Azure			
2 B		Beige			
-		Bisque			

Explanations of other properties found on tab are given below.

Feature	Description
Border color	Sample grid
	Number Letter
Header color	
Header foreground color	Number
Item color	Number Letter

U fa	
Item foreground color	Number Letter
	1 A
	2 B
Alternating item color	NumberLetter
	Determines whether the report prints in landscape mode
Landscape printing	Determines whether the report prints in landscape mode. (It can also be set using print properties in the printer
	dialogue box)
Show page number	Sets whether the page numbers are shown in PDF report
Show page number	
	exports.
Show date and time	Sets whether the date and time are shown in PDF report
	exports.
Use pagination in web view	Sets whether pagination is used in the report viewer.
Add bookmark for each visual group	Sets whether bookmarks are used in adobe PDF exports.
Page Break After Visual Groups	Sets whether each Visual Group will receive its own page
Minimize Grid Width	Adjusts the margins to the smallest width for each
	column
Visual Group Style (explained in more	Visual Group Style
detail below)	Comma Delimited 💌
	Comma Delimited
	Comma Delimited With Labels Line Delimited
	Line Delimited With Labels
	Field Value
	Multi Level
	Multi Level With Labels VG Hierarchy
Items per page	Allows a user to set the number of items shown per page
	in a grid.
Report Order	Allows the user to set the order of the Summary, Chart,
	Gauges, Map, and Detail (Field) grids
Field Value column pairs	Allows a user to set the field value style for multiple
	columns displaying on one row.
	Accounting Report Example
Show main report in Field Value style	Allows a user to set whether the main detail grid uses
	Show summary report in Field Value style Field-Value
	style
Show summary report in Field Value style	Allows a user to set whether the summary grid uses Field-
	Value style

10.2 Changing Colors Through CSS

Izenda Reports fully integrates with your application both at the program level and visually. All visual aspects of Izenda Reports are user customizable and can be made to match your existing application's visual look and feel. Listed below are some of the quickest ways to change the look and feel of our application in order to blend seamlessly with your product or application.

You can download the CSS Zip and set the appearance of the report input screens, the toolbar and tabs, as well as the reports output appearance.

The steps are:

- download the CSS file
 - o <u>CSS.ZIP</u>
- edit the CSS files, but do not change the selector names or the filenames
- save the edited files to your server where they can be access via absolute urls
- navigate to the settings.aspx page
- navigate to the "Images & CSS" tab

Status & Utils D	atabase	Feat	ures		Email & Scheduling	Images & CSS	Performance	Security	Toolbar	Tabs	Other
Database Diagram Ima	ige Url	Default	C#	VB		-					
Report Css Url	[Default	C#	VB	http://izenda.com/adhoc54daiiy/rs.aspx?css=Report						
Report Header Image	Url [Default	C#	VB	-						
Tab Background Image	e Url [Default	C≢	VB	rs.aspx?image=TabStrip	p.Background.gf					
Toolbar Background Im	nage Url	Default	C#	VB	rs.aspx?mage=Toolbar	.Toolgrad.gif					
Toolbar Css Url	[Default	C#	VB	http://izenda.com/adho	c54daily/rs.aspx?css	=toolbar				

- enter the new absolute URLs of the CSS files
- fully clear your cache and restart the application

After resetting and clearing the cache, the CSS changes should reflect in Izenda Reports.

10.2.1 Setting the Report List page (ReportList.aspx) CSS

Although the html element styles are hard coded into the application, you can override the CSS in the Reportlist.aspx page by simply placing a style tag into the page right after the end of the form.

Here is a code sample.

```
<ucl:Header ID="Header1" runat="server" />
<form id="Form1" method="post" runat="server">
<cc1:ReportList runat="server" id="reportList"></cc1:ReportList></cc1:ReportList></cc1:ReportList></cc1:ReportList</pre>
</form>
<style type='text/css'>
A:link {font-family: Verdana, Geneva, Arial, Helvetica;}
A:visited {font-family: Verdana, Geneva, Arial, Helvetica;}
A:active {font-family: Verdana, Geneva, Arial, Helvetica;}
A:hover {font-family: Verdana, Geneva, Arial, Helvetica;}
table.ReportsListTable
ł
    border-color:white;
    border-style:solid;
    border-width:2px;
    font-family: Verdana, Geneva, Arial, Helvetica;
}
table.ReportsListTable tr
{
    background-color:red;
}
tr.ReportsListHeader td
{
    border-width:1px;
    border-style:solid;
    border-color:white;
    background-color:silver;
}
</style>
```

10.2.2 Customer Integration Example

ashboard Reports Advance	ced Reports Sample Report	Customer Search	Leads	Traffic Boost	+	
Ad Hoc Reporting						
Data Sources Fields Summary	Chart Chart2 Gauge Map Mis		eview			
Report List New Save	Save As 🗇 Print 👊 🐴 💋 💌	👿 🗋 🖬 🖂 :	🗭 Results	s 1000 🔻		
🗹 Distinct						
Recent Data Sources						
	•					
All Data Sources						
All Data Sources	Customers		Employee	25		
	Customers		Employee			
Categories				ototals		
Categories	Order Details		Order Sub SampleBa	ototals		

11.0 TOOLBAR AND PREVIEW

🛿 Back 🧱 Report List 🗋 New	Save Save As	🚳 Print 🛃 👊 🖳		🔄 📾 🖂 🕯	🔅 Results 1000 💌
--------------------------------	--------------	-----------------	--	-----------	--------------------

Toolbar Buttons

The table below describes the functions of the Toolbar buttons.

lcons	Features	Description
🖣 Back	Back	Goes to the browser's previous page.
New 📄	New	Creates a new report.
F Save	Save	Saves a report.
Save As	Save As	Allows a new report name to be saved.
💼 Print	Print (PDF Export)	Saves the report as a PDF document.
🛃 GO	IE	Runs the report in the web browser.
몲	Schema	Display database diagram
sol	SQL	Views the report in SQL mode.
X ,	CSV	Saves the report as a CSV file.
×	Excel Spread sheet	Saves the report as a MS-EXCEL file.
W	Word Document	Saves the report as a MS-Word document.
	XML document	Saves the report as a XML document.
	Open office document	Saves the report as an Open Office Document.
हों।	RTF document	Saves the report as a RTF document
	Back to Report List	Takes you to the Report List screen.
	E-mail	E-mails a report to a client
\$	Settings	Takes you to Settings.aspx page.

Descriptions of Toolbar Buttons

11.1 How to Modify the Toolbar Through the API

The Toolbar represents a set of controls (mainly - buttons), which allow users quick access to the most often used features. **AdHoc** has a set of classes that allow you to construct any toolbar dynamically using the API, but there are four pre-refined (default) toolbars in **AdHoc**:

- **Report Designer** toolbar (a, below) the most complex one.
- Report Viewer toolbar (b)
- **Dashboard Designer** toolbar (c)
- **Dashboard Viewer toolbar** (d) the simplest one.

a)														
4	Back	Repor	t List	New	Save	Save As	💼 Print	s <u>ot</u>	8) 💋	×	W 🖹	🖬 🖂	\$ Results	1000
b)														
	Back	Repor	t List	Print	B) 💋	×W	i 🖬	🖂 Re	sults 100	00 💌	🖉 Design			
c)														
	Back	Repor	t List	New	Save	Save As	🌣	Preview						
d)		List 🕱	🛛	🖉 Desiç	jn									

Default AdHoc toolbars. (More Detail KB Article)

AdHoc allows you the option to either customize the default toolbars or create a completely new toolbar, by manipulating basic toolbar objects using the toolbar API. The Toolbar is implemented by using classToolbar, which has a collection of ToolbarItem. Any control derived from ToolbarItem represents a basic toolbar object and can be placed at the Toolbar. Since ToolbarItem is derived from WebControl, it has all of its properties and events, like Enabled, Visible, etc. AdHoc has three built-in toolbar controls derived from ToolbarItem:

- ToolbarButton
- ToolbarCheckBox
- ToolbarSeparator

11.2 Changing What Buttons are Displayed in the Toolbar

Similar to most other settings, you can turn each button on or off on a per user/per role basis.

Izenda.AdHoc.AdHocSettings.CurrentUserIsAdmin = false; Izenda.AdHoc.AdHocSettings.ShowSettingsButton = false; Izenda.AdHoc.AdHocSettings.ShowSqlOutputIcon = false;

In the example above, we have turned off the Settings Button and the SQL Output Button for non-admin users.

11.3 Preview Tab

In the **Preview** tab (see image below), a preliminary version of the created table can be viewed, along with its Summary table, Chart(s), Map, Gauges, along with any other properties that have been set. Go back and change selections in the previous tabs and see how they affect the table by returning to it in the **Preview** tab.

Reports	Data Sources	Fields	Summary	Chart	Gauge	Мар	Misc	Style	Filters	Previ	iew
- d Back	Data Sources	New	Save 📕	Save As	. @Print	品	sol E	4) ×	2	W	

Preview Tab

Data Sources	Fields	Summar	y Chart	Chart2	Chart3	Gauge	Map	Misc	Style	Filters	Preview	
Report List	New	Save	Save As	Print	💾 sol	1	2 🛛	W	<u>)</u>	🖂 🛱	Results	100 💌 🚱

Finance Report

Financial Analysis of Freight Costs ShipCountry = Canada,Mexico,USA

Canada

Ship City	Total	2010-Q3	2010-Q4	2011-Q1	2011-Q2	2011-Q3
Montréal	\$1,394.22	\$0.00	\$88.89	\$374.68	\$203.27	\$669.63
Tsawassen	\$793.95	\$0.00	\$47.42	\$70.22	\$62.89	\$0.00
Vancouver	\$9.92	\$0.00	\$0.00	\$0.00	\$4.65	\$0.94
	\$2,198.09	\$0.00	\$136.31	\$444.90	\$270.81	\$670.57

12.0 PIVOTS SECTION

The Izenda reports Pivot feature allows users to generate analytical data grids from within Izenda reports. The Pivot feature essentially adds extra pivot columns to the right side of the report. This is useful for comparing data over multiple categorical dimensions.

Below is an example of the Design and Output of a standard Pivot View of the Average Amount Spent on Freight.

Field	Description	Sort VG A	Function	Format	
ShipCountry	 Ship Country 		·	💽 🔀 🗐 🤤	ΕΦ
	•		·	💌 🔀 🗐 🤃	F ‡
Add pivot columns for Ord	erDate		Ig Group(Year)	✓ function	
Calculate cell values on Frei	ght	▼ field	with Average	 function and \$0.00 	💽 format. 🖬 🕸
Add Subtotals Add S	de Total				
Quick Add Remove pivot	Continue to Summar	y Preview	1		

Ship Country	2010	2011	2012
ик	\$56.64	\$39.62	\$74.9 6
USA	\$85.75	\$96.99	\$153.32

12.1 Create a Simple Pivot Report.

- 1. Click on the "Data Sources" tab and select desired data sources. (Ex. Orders)
- 2. Click on the "Fields" tab. Select the desired Field(s) names & attributes (Sorting, VG, Function, & Format) for the report. (Ex. ShipCountry)

Before Pivot:		
Field	Description	Sort VG
ShipCountry	Ship Country	
	•	
Add Subtotals		
Quick Add Add Pivot	Continue to Summary	Preview

Create pivot view on above report:

- 1. Under Fields tab, click the "Add Pivot" button.
- 2. Drop down "Add pivot columns for". Select the field you wish to display across the top of the pivot view (Ex. OrderDate). Next, select the function type from drop down (Ex. Group(Year))
- Drop down "Calculate cell values on". Select the field you wish to display down the left side of the pivot view (Ex. Freight). Next, select the function & format types from the drop downs (ex. Average & \$0.00). **This field's data will also populate the rows within the pivot view.
- 4. Optional: Select the "Add subtotals using" drop down and apply Advanced Settings.
- 5. Click Preview

After Pivot:

Field		Description	Sort VG A F	unction	Format
ShipCountry		Ship Country			🔽 🔀 🛱 🌼 🗘
		•		v	💌 🔀 🖬 🖗 🗘
Add pivot colu	mms for OrderDate		▼ using	Group(Year)	function
Calculate cell v	values on Freight		 field with 	Average	function and \$0.00 💌 format.
🗆 Add Subtot	als				
Quick Add	Remove pivot	Continue to Summary	Preview		

Essentially, the pivot capability adds additional columns based on the data to the right of the report. In this example, the first column is essentially a standard report and the 2010, 2011, 2012 columns were added by the pivot capability.

Standard Report View:

Ship Country
UK
USA

Columns added by Pivot:

2010	2011	2012
\$56.64	\$39.62	\$74.96
\$85.75	\$96.99	\$153.32

12.2 Create an Advanced Pivot Report

Let's use these concepts to develop a more sophisticated report that shows us a monthly time-series report for each country visually grouped by employee.

In this report, we want to show the Top 5 companies that accounted for the most freight in 2011 and breakdown the analysis by month.

Here is what the design screen would look like for this report.

Records 5				
Field	Description	Sort VG A Function	Format	
ShipCountry	 Country 	Group	💌 💌 🔀 🖆 🧞 🗘	
Freight	 Sum(Freight) 	Sum	💌 \$0.00 💌 🔀 🖆 🎨 🗘	
	•		💌 💌 🔀 🖆 🗘 🗘	
Add pivot columns for	OrderDate	✓ using Group(Year & MN)	✓ function	
Add proti coldinina ioi	OrderDate	Group(rear & wiv)	• Infection	
Calculate cell values on	Freight	✓ field with Sum	✓ function and \$0.00	format. 🛛 🔁 🕏
Add Subtotals	dd Side Total			
Quick Add Remove piv	ot Continue to Summa	ry Preview		

Here's how we add the non-pivot fields.

- 1. We started off by using the same Data Source for the previous report, Orders.
- 2. We then Select the Fields, grouping by ShipCountry, and Summing the Freight.
- 3. Next, we check the Subtotals box to give us a summary line for each country.
- 4. Then, we click on the advanced icon for the Freight field, sorting from Z-A to list the highest values first.
- 5. After that, we selected 5 Records in the top left to show the 5 countries with the largest freight amount.

For the pivot portion of the report, we:

- 1. Select the OrderDate at the Pivot column and Year & MN as the way it will be displayed.
- 2. Select Freight as what we will measure in our pivot, performing a sum for each column.

The final step is to add the filter to make it calculate the results from only 2011 data.

Data Sources Fields	Summary Chart Chart2 Char	t3 Gauge Map Misc	Style Filters Preview
Report List New	Save Save As PPP Print	sol 🖳 🗷 💌 🛛	🖹 🖬 🖂 🌞 Results 100 💌 🚱
Preview			
Filter Field	Operator	Value(s)	Blank Param
Filter Field 1 OrderDate	Operator In Time Period	Value(s) Previous Year 	Blank Param

Finally, here are the results of the report with Pivot:

Country	Sum(Freight) ♥	2011 - Jan	2011 - Feb	2011 - Mar	2011 - Apr	2011 - May	2011 - Jun	2011 - Jul	2011 - Aug	2011 - Sep	2011 - Oct	2011 - Nov	2011 - Dec
Germany	\$6,232.55	\$109.03	\$231	70 \$49.05	\$426.84	\$1,440.95	\$364.31	\$430.69	\$223.92	\$906.18	\$1,573.00	\$3.52	\$473.36
LISA	\$5,819.37	\$17.05	\$299	81 \$791.89	\$426.76	\$40.15	\$401.96	\$1,043.70	\$202.26	\$1,040.44	\$837.27	\$441.80	\$276.25
Austria.	\$3,745.65	\$631.74	\$47	94 \$5.29	\$789.95	\$339.22	\$26.06	\$131.90	\$477.90	\$174.39	\$272.47	\$117.33	\$731.26
France	\$2,467.76	\$114.85	\$245	02 \$70.72	\$403.96	\$205.78	\$155.59	\$28.63	\$518.61	\$175,83	\$63.20	\$75.58	\$409.99
Erazi	\$2,226.01	\$297.37	368.	66 \$147.33	\$116.29	\$68.65	\$63.44	\$155.03	\$501.41	\$146.70	\$251,74	\$50.96	\$349.13
	\$8,237.56	\$1,399.77	\$306.	55 \$235.92	\$998.13	\$482.68	\$285.64	\$711.13	\$1,232.18	\$321.29	\$604.53	\$421.02	\$1,238.72

To make the report more consumable, you might also want to add highlighting to show the months with lows values.

For this, click on the Advanced Field Settings icon on the pivot field where you are calculating cell values, on the far right of the image below.

Then, set the Cell Highlight to 0 to 50: Red.

Text Highlight	
Cell Highlight	0 to 50: red
Value Ranges	example: 0 to 10:Under 10;10 to 100:10-100;

Here is the result:

Ship Country	Sum(Freight)	2011 - Jan	2011 - Feb	2011 - Mar	2011 - Apr	2011 - May	2011 - Jun	2011 - Jul	2011 - Aug	2011 - Sep	2011 - Oct	2011 - Nov	2011 - Dec
Argentina	\$117.65	125.4											
Austria	\$3,745.65	\$631.74	\$47,94	48.25	\$789.95	\$379,22	424.44	\$121.90	\$477.90	\$174.59	\$272,47	\$117.33	\$771.26
Belgum	\$460.48	100 A	\$147.06	\$83.30		\$55.67	40.00			1	44.4		\$157.23
Brazil	\$2,226.01	\$297.37	\$68.66	\$147.33	\$116.29	\$68.65	\$63.44	\$155.33	\$501.41	\$146.70	\$251.74	\$50.96	\$349.15
Canada	\$1,687.76	\$440.83	11.11		\$74.67	A 33	\$196,14	\$423.90	\$246.67		\$57.75	\$243.73	
	\$8,237.56	\$1,399.77	\$306.55	\$235.92	\$998.13	\$482,68	\$285.64	\$711.13	\$1,232.18	\$321.29	\$604.53	\$421.02	\$1,238.72

13.0 IZENDA MAPS

The Izenda Maps add-on provides interactive geographical visualization to the reporting experience. For more information, please <u>click here</u>.

**Please note: You must have purchased the Maps module to access this functionality.

In the report below, we are shading the colors of the states based on the sum of the freight, applying a hover over that shows the top products by state, and displaying an indicator bar on the location of the postal code while showing the number of orders vertically in the bar.

Data Sources	Fields	Summar		Chart		2	e Ma	p Misc			n I	Preview		
Report List	Rew	Save	Save As.	. 3e	nt 📳	1			9 6	1 3	•	Results	100	0
Мар Туре	USA.													
Zoom To Data	10													
Shaded Region	i)													
State	ShipRe	agion		۲										
Shading	Freight	1			Function	Sum								
Target report	Subrep	orts\Top	Products t	ys.	Effect	Hover	-							
Fill Color From	White	-												
Fill Color To	Red			٠										
Label														
Indicator Bar														
City														
Postal code	ShipPo	ostalCode	1	٠										
Latitude														
Longitude	544°													
Value	Orderil)		٠	Function	Count	۲							
					Effect		•							
Target report	211													



Feature	Description
Мар Туре	Map Type USA Zoom To Data Shaded Region USA Australia
Zoom to Data	Zooms to the region or state the data is in
State	Select the field where state data is located
Shading	Selects the field and function you will use for shading
Fill Color From - To	Fills the color of the shading from a selected color to a selected color
Label (1 st one displayed)	Sets the text displayed for the Legend
Postal Code	Select the field where postal code data is located
Latitude / Longitude	Select the field where GIS data is located for lat/long
Value	Sets the field and function you will use in the indicator bar
Label (2 nd one displayed)	Insert Text null 1 8 15 22 29