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Reporting Overview

With reporting in Cognos, you can create and distribute customisable reports for consumption. We can create reports from any of the governed enterprise data, spreadsheets.

Laying out the reports is easy as dragging the data on the Canvas or you can copy and paste the data from other reports, Dashboards & Explorations.

Reporting gives you a dozen of Visualizations types to chose from and we can create a library of reusable style with consisting looks saving you time.
Using Data Module for Creating a Report in Report Studio?

You can use data modelling in IBM Cognos Analytics to access and shape the data from Data servers and uploaded external files. We can create a Data module by gathering many sources of data including Databases, Microsoft Excel spreadsheets and Text files.

To create Reports in Report Studio, you should have a good understanding on user interface.

Report Studio user interface is divided into 3 parts —

- Insertable objects on the Left Side.
- Work area for report design in the middle
- Properties Pane

The above screenshot has three major blocks, which are as follows —

- **Insertable Object Pane** — The Insertable Objects pane contains objects that you can add to a report. These objects can be added by dragging them to the work area. It can contain —
  - Source tab (That contains item from the Data module/Package).
  - Data Items (Queries created in the report).
  - Toolbox (different objects like graphics that can be added to the report)
• **Properties Pane** — The Properties pane lists the properties that you can set for an object in a report. To get the help, select the property and use keyboard key F1.

• **Work Area** — The work area is known as the area where the report is designed.

On the home page,

**Click on home button → Click on the + Add new button and select report.** You will get the Option to Select Blank & Blank Active Template
Once you select the Blank Template You will be prompted to select the type of report you want to create. You have the option to select different report types.

When you select a list report, you get the following structure of the report in the. You will give the Object Name and the Query Name and then select the required source (Data Module) and drag the objects from the required Data Module on the left side to the report structure.
Select the required source (Data Module) and drag the objects from the Data Module on to the report.

You can use different tools at the top for the report formatting. To save a report, click on the save button. You can save it in the Team Content or the My Content.
When you click on the Run option, you can select different formats to run the report.
Your report is running.  
Please wait...
Report Validation

Validation is used to ensure that your report does not contain any error. When a report created in the older version of Cognos is upgraded it is automatically validated.

To validate a report, go to the right-hand side of the tool bar and click on more menu and click on the three buttons as shown in the following screenshot.

There are different Validation levels —

- **Error** — To retrieve all errors returned from the query.
- **Warning** — To retrieve all errors and warnings returned from the query.
- **Key Transformation** — To retrieve important transformation steps.
- **Information** — To retrieve other information related to query planning and execution.
Benefits of data modules for creating reports

- The purpose of using data modules is to allow users to quickly get to data that may not be in an existing package or even available through more traditional means such as the enterprise data warehouse.
- Data modules are the perfect way to bridge the gap between immediate need and solid foundation.
- Data modules are not limited to just bringing in external files. They can also be used to blend existing packages.
- Data modules can be used to join any data connection to any package to any file. This gives the author great flexibility in what can be used on a report.

Conclusion

Data modules are a great enhancement to the Cognos platform. When used properly they can provide an excellent short-term solution for getting much needed data quickly. They open doors to authors by providing insight to data previously unavailable in their central reporting tool.
Query Relationships:

We can customize the data queries to open the infinite ways to accessing the governed data.

Joins are very useful for creating relationship between queries that may not exist in the Framework Model. They play a very important role in the report to achieve the required output in a desired way and also helps in improving the performance of the queries.

Types of Joins:

- **Join**: You can create a join relationship to join two queries.
- **Union**: Returns all the rows from both the queries
- **Intersect**: Returns rows that exit in the both the Queries
- **Except**: Returns rows that exits in the Left Query ‘Except’ that of those which also appear in the right Query.

Example on how to create a join Query

To create a join relationship
1. Click the Queries from the Navigation menu and click Queries.

2. From the Toolbox drag ‘Query’ to the work area.

3. Two drop zones appear to the right of the operator. Drag a Query object to each drop zone.
4. Two queries are created in the work area, and a shortcut to each query appears in the drop zones.

Click on Join.

5. Click the Show properties icon, and in the Properties pane, double-click the Join relationships property.
To create the link, click a data item in the left query, and then click a data item in the right query.

6. Double click on newly created ‘[Total Sales with Item Type]’ join query.

7. Drag the required data items into the Join Query the ‘[Total Sales with Item Type].’
8. Generate a report using this [Join Query] in a desired data container.

9. Report results
<table>
<thead>
<tr>
<th>product_id</th>
<th>product</th>
<th>product_type</th>
<th>current_retail_price</th>
<th>current_wholesale_price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Brazilian - Organic</td>
<td>Organic Beans</td>
<td>$18.00</td>
<td>14.4</td>
</tr>
<tr>
<td>1 - Total</td>
<td>Brazilian - Organic - Total</td>
<td></td>
<td>$18.00</td>
<td>14.4</td>
</tr>
<tr>
<td>2</td>
<td>Our Old Time Diner Blend</td>
<td>House blend Beans</td>
<td>$18.00</td>
<td>14.4</td>
</tr>
<tr>
<td>2 - Total</td>
<td>Our Old Time Diner Blend - Total</td>
<td></td>
<td>$18.00</td>
<td>14.4</td>
</tr>
<tr>
<td>3</td>
<td>Espresso Roast</td>
<td>Espresso Beans</td>
<td>$14.75</td>
<td>11.8</td>
</tr>
<tr>
<td>3 - Total</td>
<td>Espresso Roast - Total</td>
<td></td>
<td>$14.75</td>
<td>11.8</td>
</tr>
<tr>
<td>4</td>
<td>Primo Espresso Roast</td>
<td>Espresso Beans</td>
<td>$20.45</td>
<td>16.36</td>
</tr>
<tr>
<td>4 - Total</td>
<td>Primo Espresso Roast - Total</td>
<td></td>
<td>$20.45</td>
<td>16.36</td>
</tr>
<tr>
<td>5</td>
<td>Columbian Medium Roast</td>
<td>Gourmet Beans</td>
<td>$15.00</td>
<td>12</td>
</tr>
<tr>
<td>5 - Total</td>
<td>Columbian Medium Roast - Total</td>
<td></td>
<td>$15.00</td>
<td>12</td>
</tr>
</tbody>
</table>
Types of Prompts used in IBM Cognos Analytics

Adding prompts to the reports allows users to interact with the reports and receive the data that matters most to them.

There are different types of prompts that you can use in Cognos.

• **Text Box Prompt** is a prompt control that allows you to type in a value.

• **Value Prompt** is a prompt control that allows you to select one or more values from a list.

• **Select & Search Prompt** is an advanced prompt control that allows you to search for values.

• **Date and Time Prompt** retrieves data based on a date and time that you select. This control is useful for specifying ranges. For example, you can retrieve all orders received from Monday at 12:00 a.m. to Friday at 5:00 p.m.

• **Interval Prompt** retrieves data based on a time interval that you specify. For example, you can use this control to retrieve a list of products that were returned 30 or more days after they were purchased.

• **Tree Prompt** retrieves data based on values you select from a list. Values are organized hierarchically. This control is useful when you are working with dimensional data sources. Data is shown from the top of a dimension hierarchy to the most detailed member, and users can choose the level of Detail they want to view in the report.
How to set up a prompt page?

Steps to set up a prompt page.

- Go to Query Explorer and click on Query where you want to set up the filter.

- Create the Filter from the Available Components
• Go the report and click on prompt pages. Drag the page into the work area

• Click on the prompt page and from the left side and insert the table and specify the columns and rows.
• Insert the Text in the table and specify the name of the prompt.

• Insert the value prompt and select the existing parameter which we had created the query
Click in the prompt and pass the Query on which you wanted to create the parameter and column name. We would have the multiple options in properties pane such as **Multi Select, Select UI** in which we have the options to select the UI for the Prompt such as List, Drop down & Radio Button.
Run the report the select the Value Prompt

- Similarly we can create other prompts as Search & Select