

Novell Service Desk - Creating Custom Reports using Pentaho Report Designer (versions 3.8.3 GA & 5.0.1)

Inbuilt Reporting: Novell Service Desk has [inbuilt reporting](#) capabilities that enables users to generate management reports from the captured record details. It provides a graphical snapshot of the overall performance of the Service Desk and its Users.

Report Builder: Novell Service Desk also provides the capacity to build simple custom reports using the [internal system report builder](#) without requiring in-depth knowledge of the database schema.

The intent of this document is to provide you with few basic steps on using **Pentaho Report Designer, version 3.8.3 GA or version 5.0.1** for creating customized reports outside of the service desk product.

I have specifically called out at places where the steps differ for these two Pentaho versions. In general majority of the steps are similar.

Pre-requisites:

- **Entity Relationship document:** Before you start creating customized reports through Pentaho, I encourage you to refer Novell Service Desk's [Entity relationship details document](#) to understand the key tables and table relationships
- You have the Novell Service Desk database details - host name/IP address, port, database name, and database credentials
- You have installed Pentaho Report Designer version 3.8.3 GA or version 5.0.1

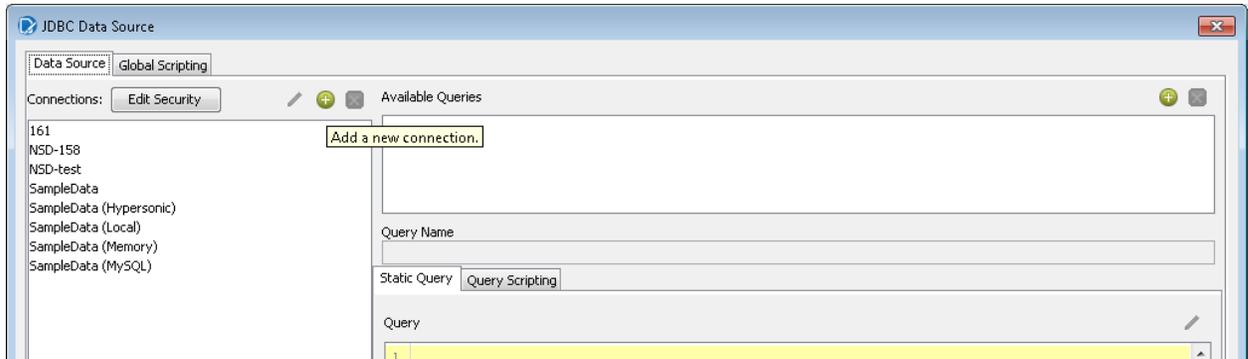
Environment & Drivers: For the purpose of this example, I am using Novell Service Desk 7.0.3 virtual appliance and the internal postgresql database.

In order to connect to database it is important to add the appropriate JDBC driver to `<install-directory>\ReportDesigner\lib\jdbc` folder. As I am using PostgreSQL, I downloaded the latest [postgresql driver \(JDBC4\)](#). This is applicable to Pentaho 3.8.3 & the driver seems to be available with Pentaho 5.0.1.

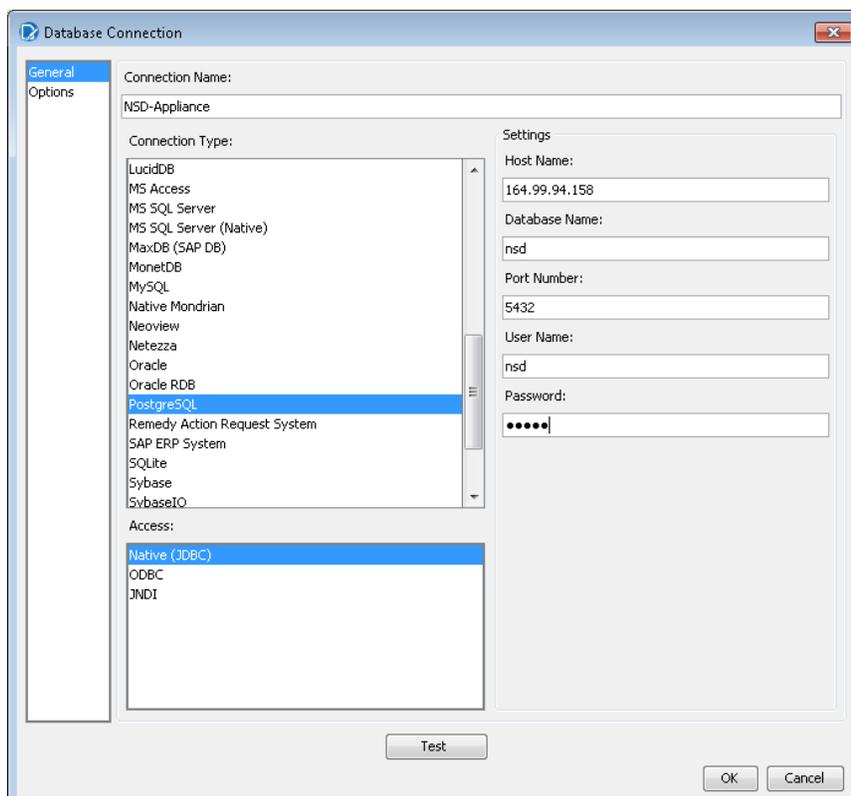
Creating a Custom Report - Example

To create a report using Pentaho Report Designer:

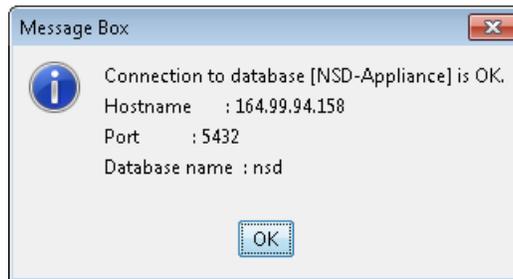
- Start Pentaho Report Design Wizard & click “New Report” in the welcome dialog box or File->New
- Go to Data->Add datasource->JDBC to add a data source or alternatively you can click the yellow database icon
- Under connection Click  to add a new connection



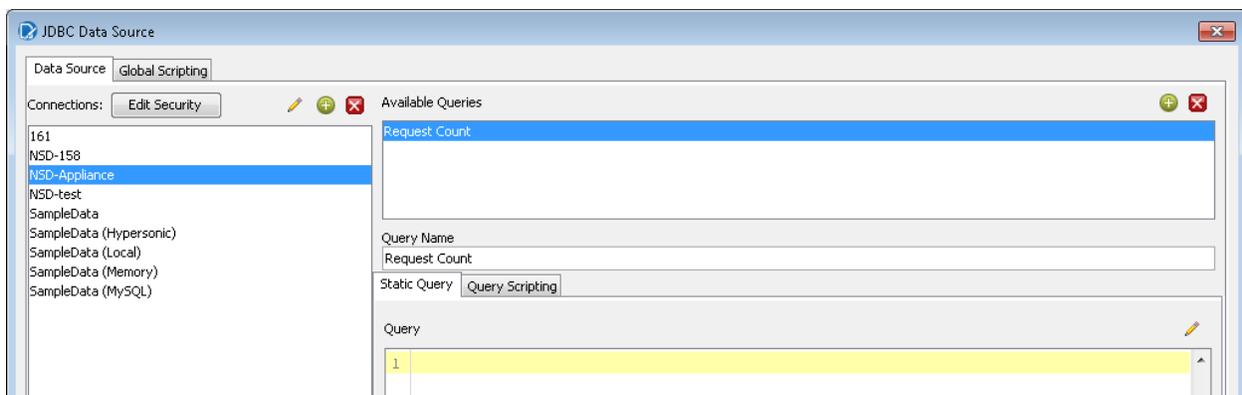
- In the Database Connection dialog, under General, provide a connection name (ex: NSD-Appliance), select the connection type (ex: PostgreSQL) and Access as Native(JDBC)
- Under Settings, provide the database details



- Test the connection to the database by clicking on Test



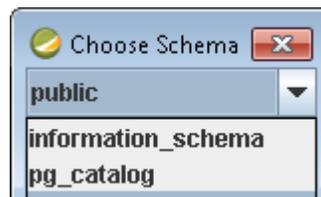
- Click Ok and you will notice “NSD-Appliance” listed in connections
- Next to Available Queries click  and add a new query



- Provide a name to your query, Next to Query, click edit 
- For Pentaho designer 5.0.1, on clicking edit, the SQL Query Designer window opens, then choose schema as “public” in the bottom left-hand side corner of the designer

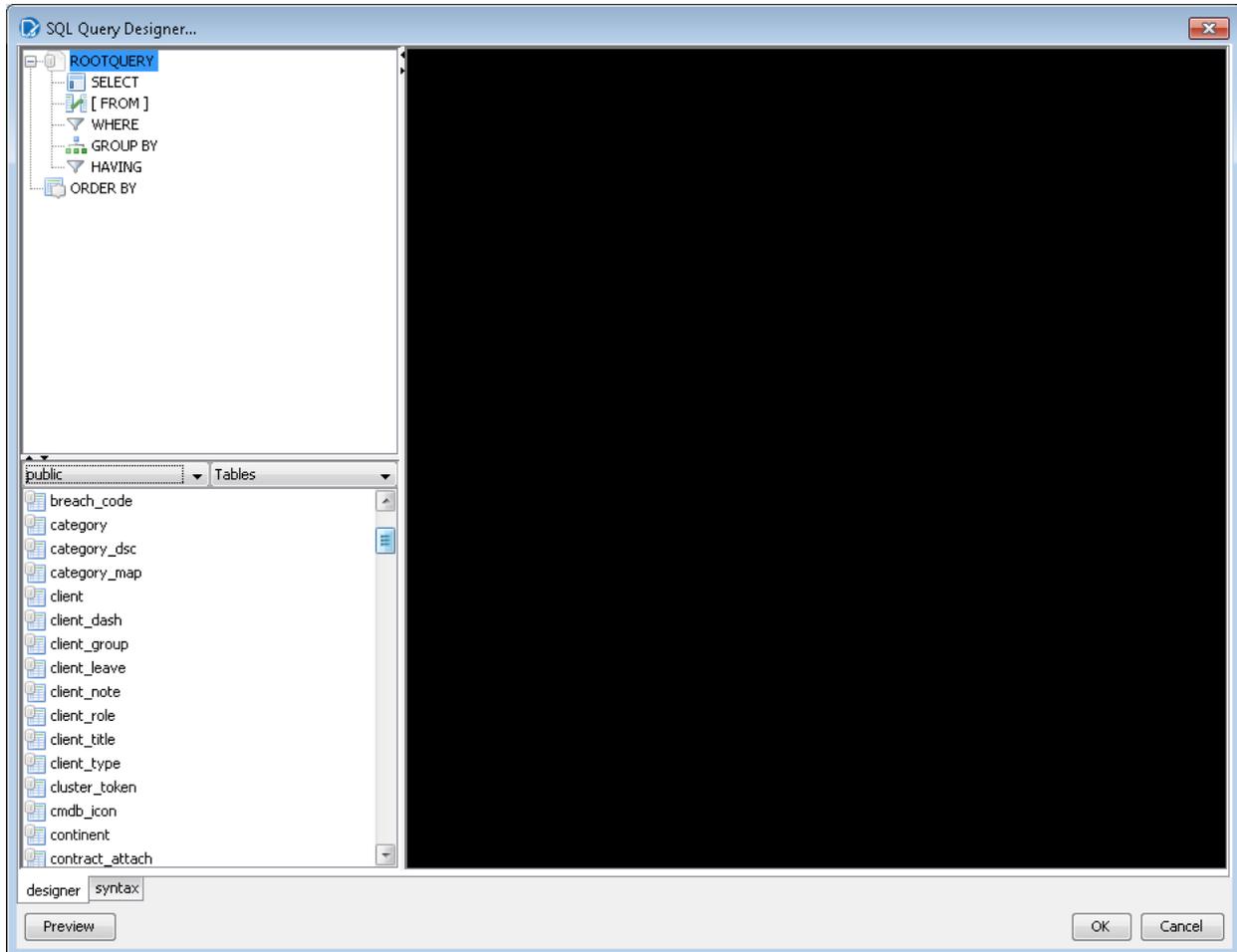


- For Pentaho Designer 3.8.3 GA, choose schema as “public” in the pop-up & then the SQL Query Designer window opens



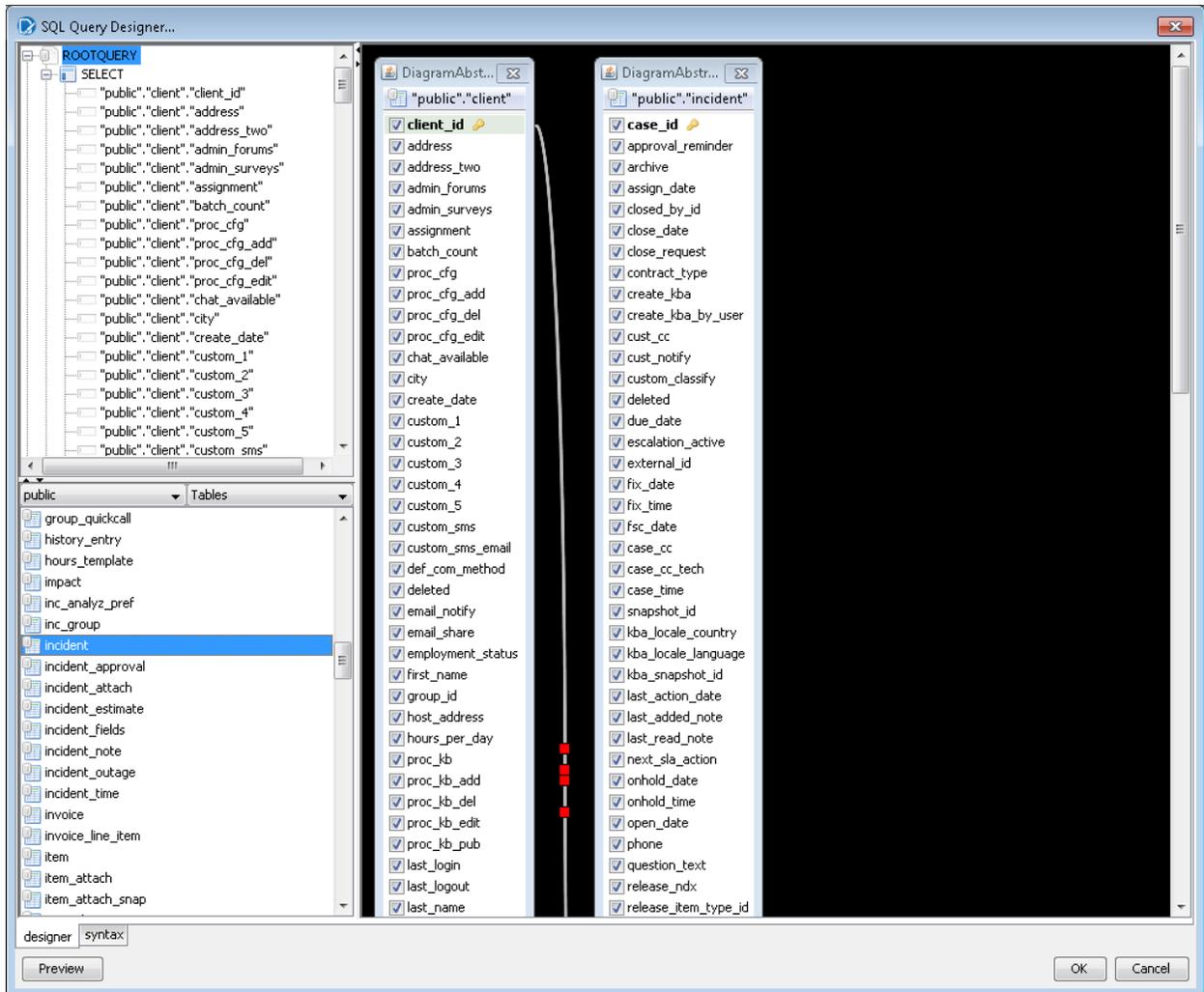
Note: The schema name depends on the type of database. For postgresql it is “public”, for MSSQL DB it is “dbo”, & for Oracle it is same as “DB username”

- You will now see the Service Desk tables displayed at the bottom left-hand corner of the query designer
 - refer [Novell Service Desk's Entity relationship details document](#) to understand the key tables and table relationships



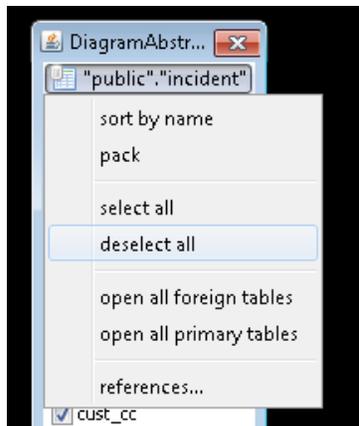
The query designer looks slightly different for Pentaho 3.8.3 GA

- Double click on any table name and the table appears in the workspace. For example I double clicked on client table and incident table and tables appears in workspace as shown in the image below

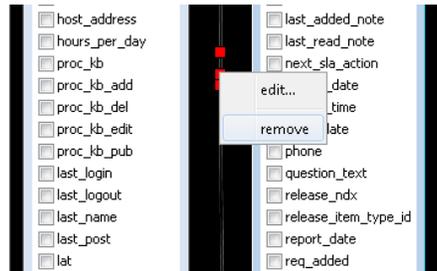


For the purpose of this exercise, we will create a report that *shows count of all requests assigned to each of the technicians*

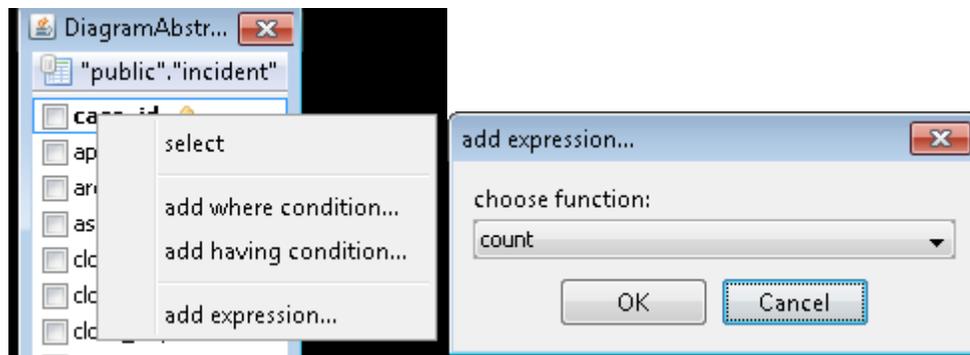
- In the SQL Query Designer workspace, right-click "incident" and choose deselect all, similarly do it for "client" as well



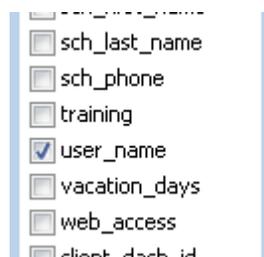
- The joins between fields across tables are automatically shown in the workspace and the join details can be seen by double clicking on the red squares
- As our goal is to get a count of all the requests assigned to technicians in this report, we will remove all the joins except the “assigned_tech_id” relationship. Right click on the red square and remove as shown in the below image.



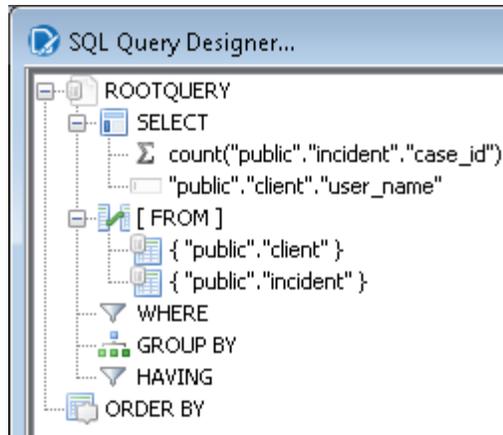
- You will now have only one join for “assigned_tech_id” & “client_id”
- In incident table, right click on “case_id” field, select “add expression” and choose function as “count” and click “ok”. This is to get a count of all the requests



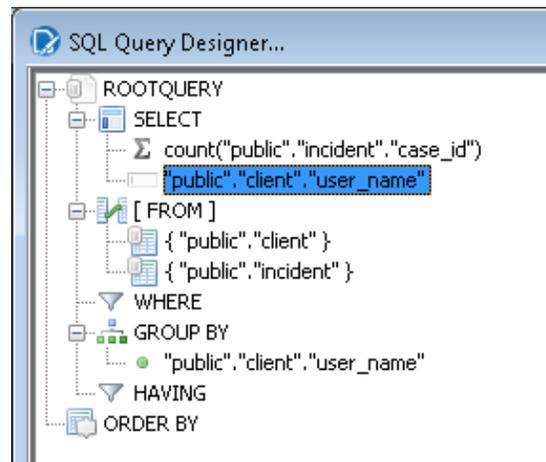
- Select “user_name” field in the client table



- You should now see the user_name & case_id fields shown on the top left corner of the SQL Query Designer in the “ROOTQUERY” tree



- Drag and drop the “user_name” field under GROUP BY as shown in below image



- Click OK to return to the JDBC Data Source dialog box. You shall now see the SQL statement right under Query.
- Click “Preview” and you should now see the count of requests and assigned technicians

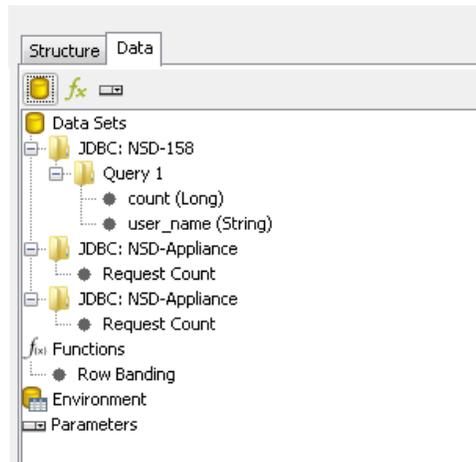
The screenshot shows the 'Preview' window with the following data:

count	user_name
155	tech1@sd.labs.blr.novell.com
2	manager1@sd.labs.blr.novell.com
258	supervisor1@sd.labs.blr.novell.com
10	tech2@sd.labs.blr.novell.com
1	super
5	padharsh

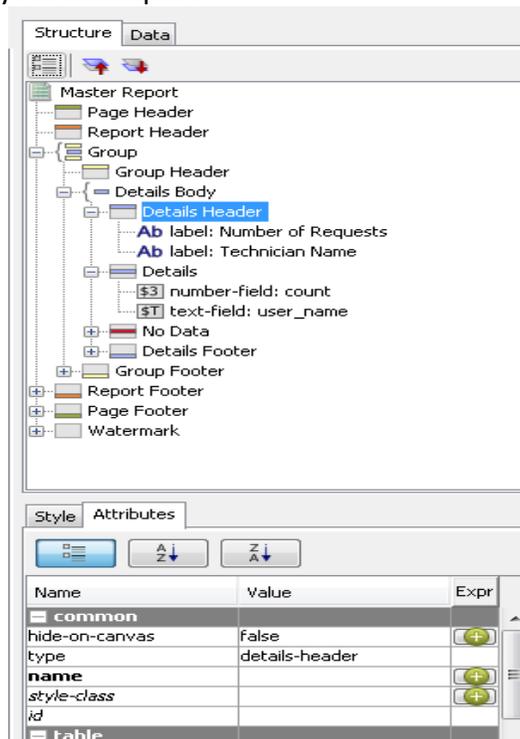
- In the JDBC Data Source dialog box, click OK to return to the Design page.
- Notice that the fields associated with your tables are listed under Query 1. You are now ready to start designing your report.

Designing the report

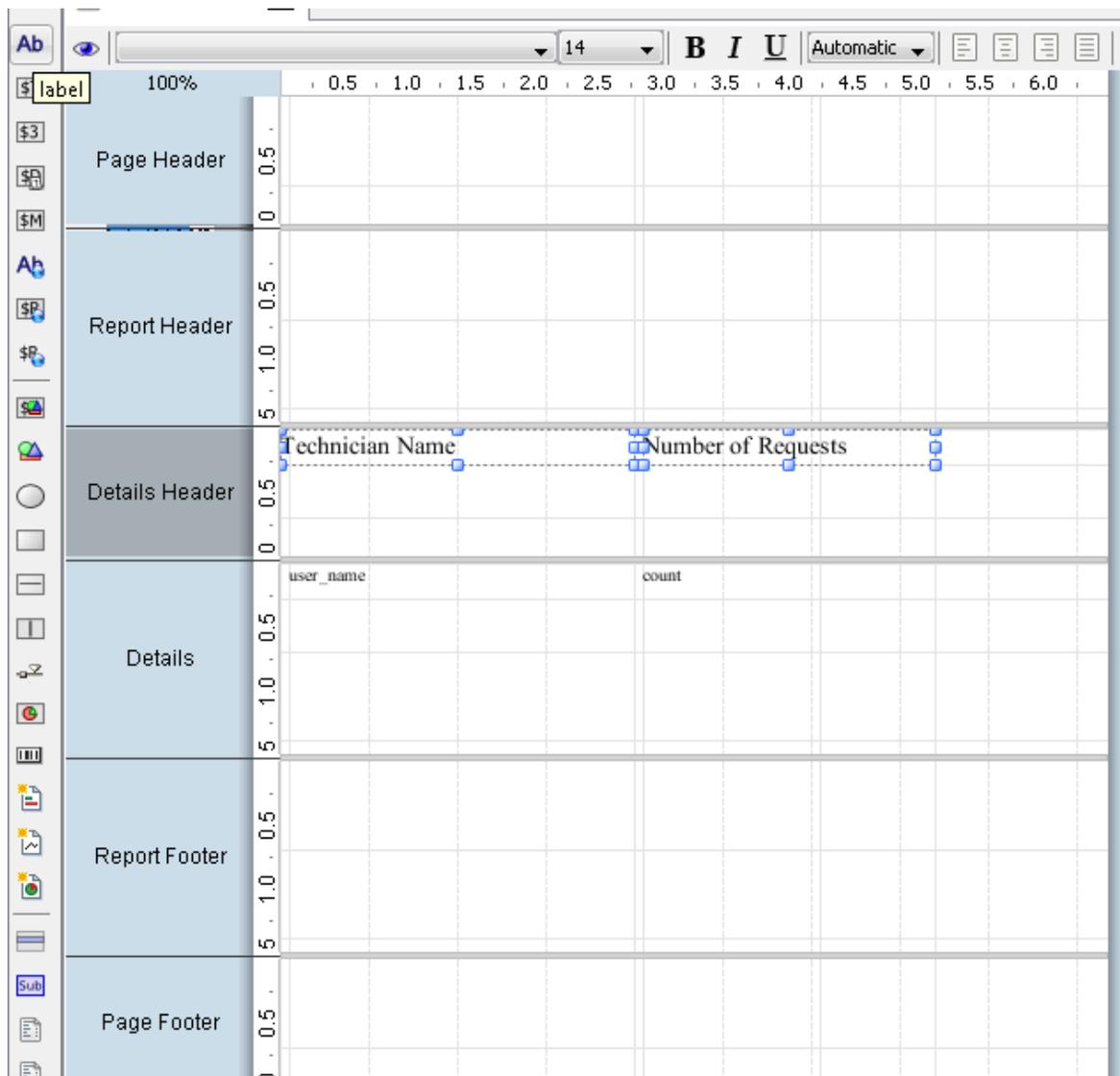
- In the Design page, go to Data tab on the right hand corner of the page
- Under Query 1, click and drag the count field to the Details band and make sure the top line of the field name and the top line of the Details band match up
- Similarly drag and drop user_name field into the Details Band & take care not to overlap the fields or your report will not display correctly



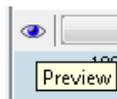
- Use the resizing handles to make the user_name field larger and the count field smaller
- To create column headers, on the right side of your workspace, click Structure -> Details Header, from the lower right section of your workspace, click Attributes and under common, change the value of the hide-on-canvas option to False. Notice that the Details Header pane appears in your workspace



- Select all the columns under “Details” pane, copy the object <ctrl c> & paste them into “Details header” pane <ctrl v>
- Click on the  label from the tools bar and type the heading names. The design page would look like this



- You may also add a “Page header” for the report
- In order to make the report easier to read, you may also add banding to the rows. Go to Format->Row Banding, choose the color (light-gray) from the drop-down list next to visible color and click ok



- Click Preview to display the report
- The report would look something like this

Technician Name	Number of Requests
tech1@sd.labs.blr.novell.com	155
manager1@sd.labs.blr.novell.com	2
supervisor1@sd.labs.blr.novell.com	258
tech2@sd.labs.blr.novell.com	10
super	1
padharsh	5

- You can save the report
- And export as PDF or HTML or Excel files etc

