TASK 11: **Menus, Forms and Reports:**   **CO4, S3**

For an application, creating and debugging Menus, Forms and reports using Oracle Forms and Report Builder.

a) Designing Forms and handling insert, delete, modify through Database Connectivity**.**

Using Large objects, create and assign acceptance format for the Employees in Bus Management System

Form Builder Tool
Open the "Form Builder" tool.

Welcome window
You will get the Welcome to the Form Builder window.

Use the data Block Wizard, (Tools ➞ Data block wizard)
You will get welcome to the the data block wizard
➞ Next ➞ table or view ➞ Enter the table name EMP
➞ Refresh ➞ provide connection details (user name , password and host string)
➞ Move all the columns from available columns to database items
➞ Data block name (let it be same as table name) ➞ create data block then call layout wizard
➞ finish.

We are done with datablock wizard , You will get welcome to layout wizard
➞Canvas (new canvas) Type content
➞ Next ➞ Move all items from available items to displayed
items ➞ Next ➞ Next ➞ Select form
➞ Frame tile Emp Details ➞Next ➞ Finish

We are done with layout wizard

Go to File -➞ Save As -➞ Create new folder in desktop with the name MY_FORMS
➞ Save the file with the name EMP_FORM.fmb

Important is to observe the object navigator (Press F3)

You can see under forms your form name i.e. EMP_FORM
Under form, data block is created i.e. EMP (Data block refers to table)
Under data block, i.e. you find Item (Item refers to columns in the table)

Under canvases, you can see a canvas
Under Canvas, you can see the frame

Understand hierarchy. It is simple.

Now, Compile the form.

In the Menu, Go to Program -➔ Compile Module (Ctrl + T)
In your desktop, in your folder MY_FORMS , Observe .fmx file is generated.

Note:
When we compile fmb file, fmx file is generated.

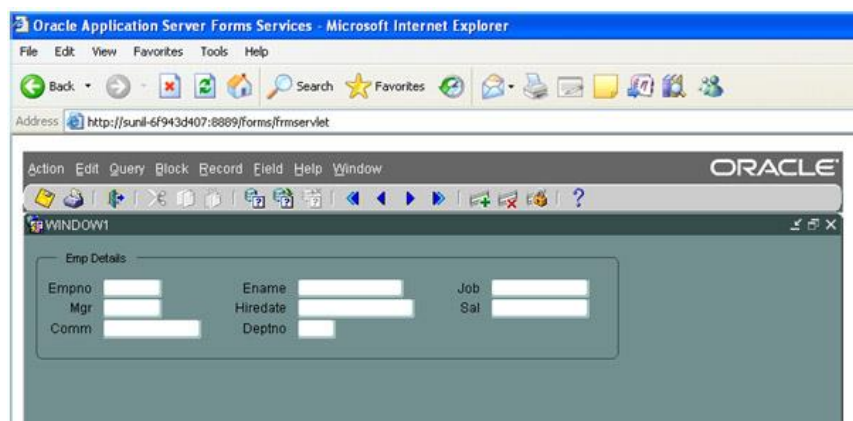To run the form, start the listener / Start OC4J listener

Now, Run the form
Click on Run Form Icon.

It will prompt to install Jinitiator, Install it.

Your Form is opened in the browser.

Now, Enter values in few fields like empno, ename ,sal , deptno, click on save.
You get a message, Transaction complete: 1 record applied and saved.

Now check your EMP table in the database, you can see the new row is inserted.

To look at all the rows in the emp table, click on execute query

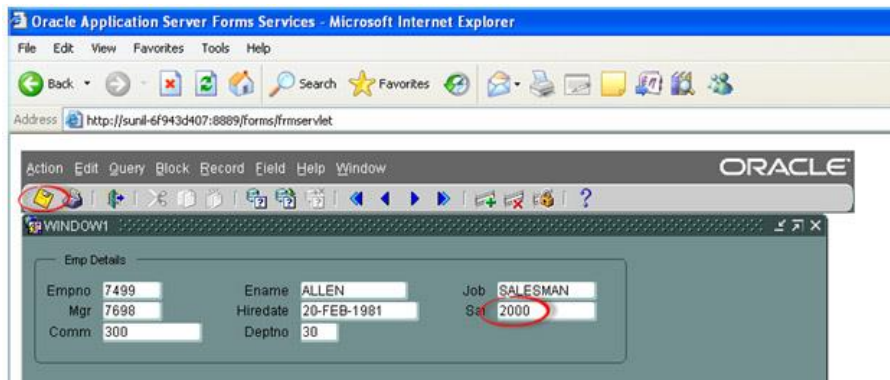To look at the next row click on next record.
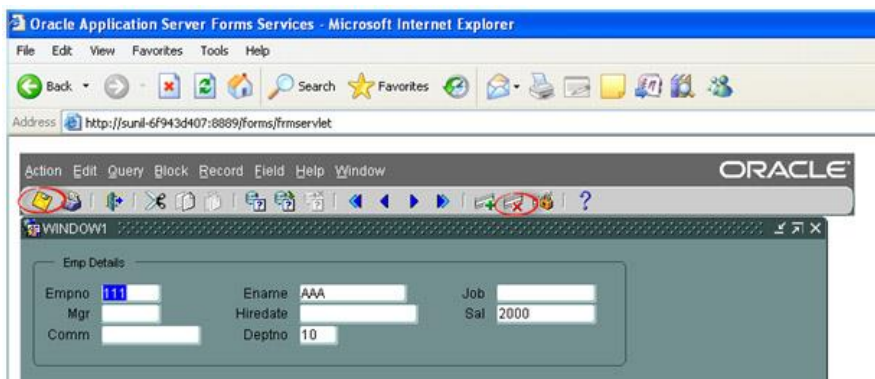To look at previous row click on previous record button

To change the salary of ALLEN from 1600 to 2000.

Go to ALLEN record, change the value of sal field to 2000.
Click on save button.

To delete the row of empno 111, traverse the record, click on delete button and save.
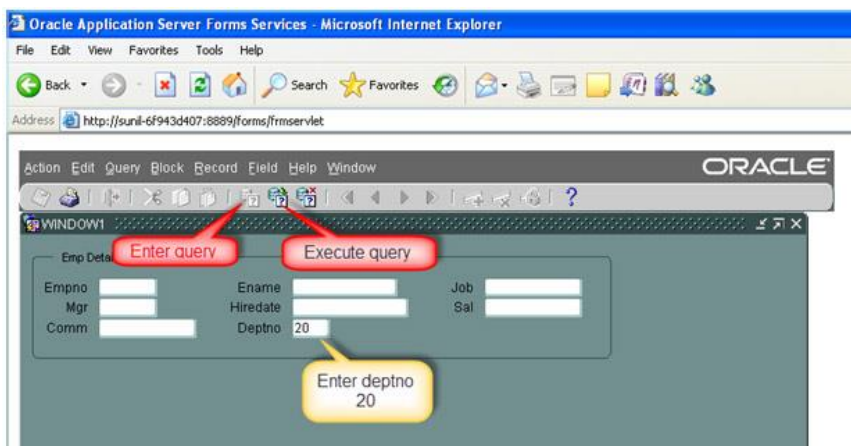

Look at the EMP table , empno 111 is deleted.

To see the details of all the employees working in deptno 20.
Click on Enter query
Enter deptno 20
Click on Execute query
Now, when you click on next record, you will get only the records working in deptno 20.
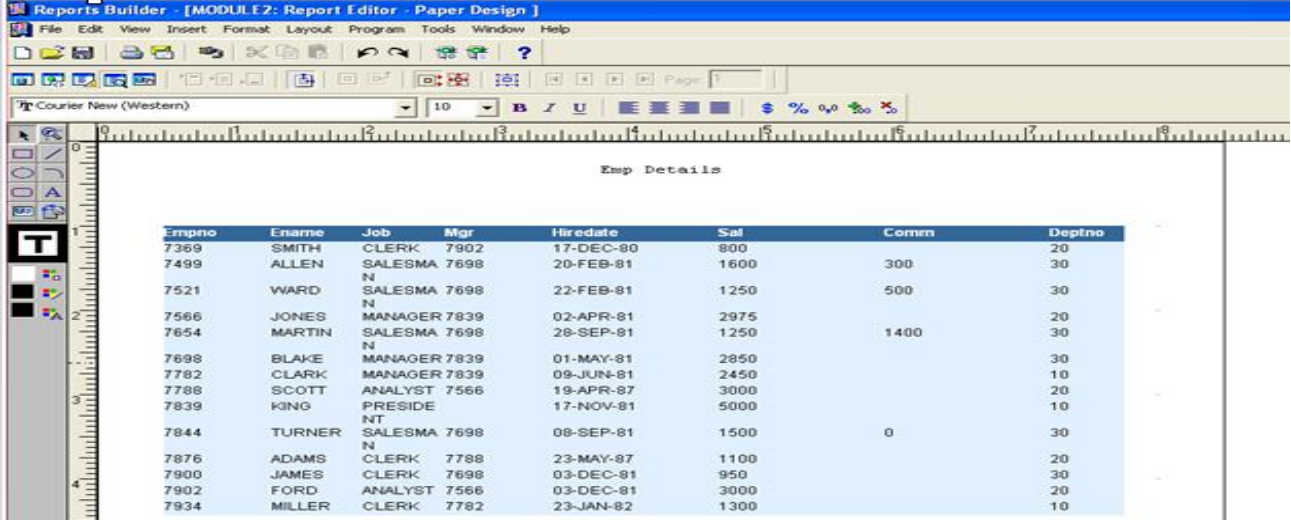

b)   Designing Forms and handling insert, delete, modify through Database Connectivity.

Using Large objects, create and assign acceptance format for the Employees Working in Bus Management System

Procedure:

Open the report builder tool→Welcome to the Report Builder → Select Use the report wizard → OK → Welcome to the report wizard → Next → Create both Web and Paper Layout →Next →Title -- EMP Details , Choose the report style as Tabular →Next → SQL Query → Next → Data Source Definition -- Select * from emp → Next → provide the username, password and database details → Connect → Move all the fields from Available Fields to Displayed Fields →Next→Next →Next →Select Predefined template -- Blue → Next → Finish.

This is how your report looks like.

Save the report with the name EMP.rdf

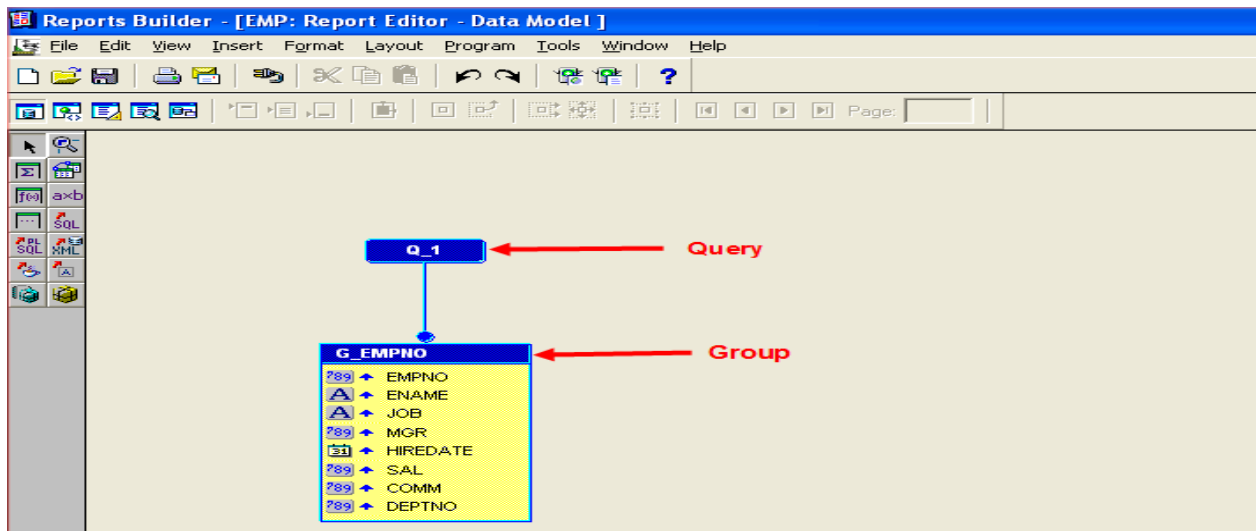Go to Tools → Object Navigator (Short cut F5)
Double click on the Data Model .
Data Model of the report is displayed.

In the data model, we can see the query.

Query results in group.
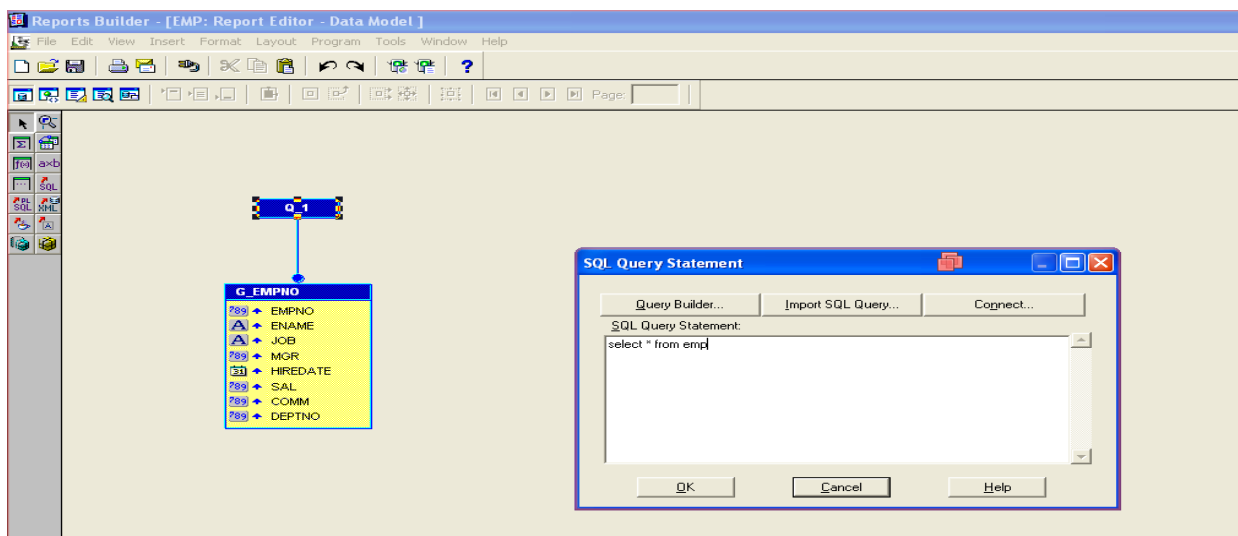Group is collection of columns.
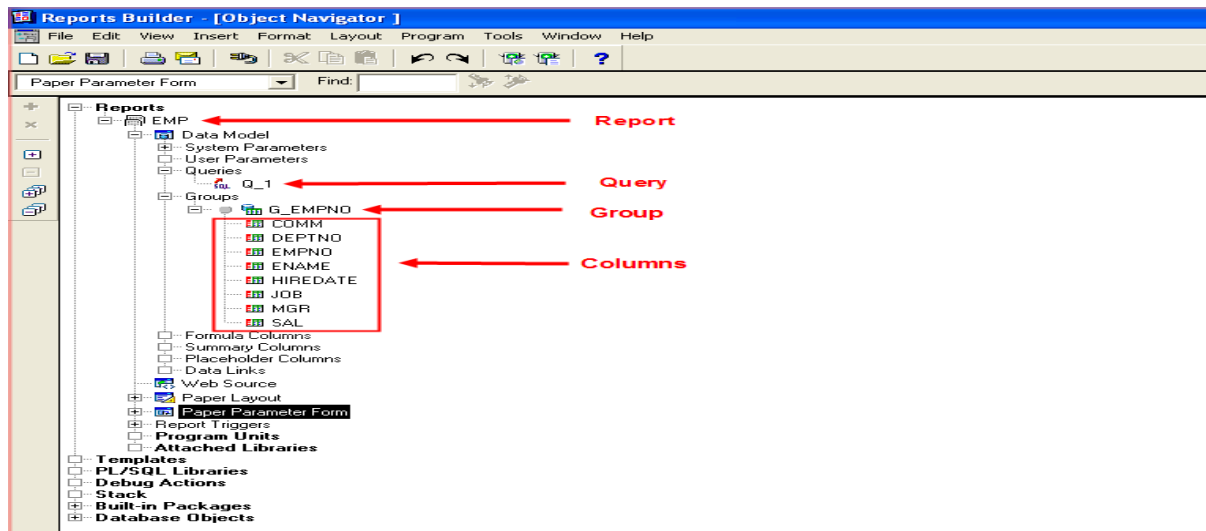
In our report, the name of the query is Q_1.
The name of the group is G_EMPNO.
Observer the group contains columns like EMPNO, ENAME, JOB, MGR etc.

Double click on query Q_1 , the query used in developing the report is displayed.

In the Object Navigator, when we expand the Data Model, we can see the Query, Group and list of the columns in the group.

In the Object Navigator, expand the Paper Layout.
It contains three sections.
1) Header Section
2) Main Section
3) Trailer Section

Expand the Header Section, there is nothing found.
Expand the Trailer Section, there is nothing found.
Expand the Main section, We can see Body and Margin.
Expand Body, we will find M_G_EMPNO_GRPFR. It is called as Group Frame.
It groups all the objects belong the query. Hence it is called Group Frame. It is the first frame that is created by the wizard. The name of the frame always ends with GRPFR (stands for Group Frame).

Under Group frame we find Header frame.
This frame name ends with _HDR.
This frame is used to group the column headings of the report.

The next object is repeating frame. We can identify the repeating frame in two ways.
Repeating always have an arrow on the frame.
The name of the repeating frame always starts with R_
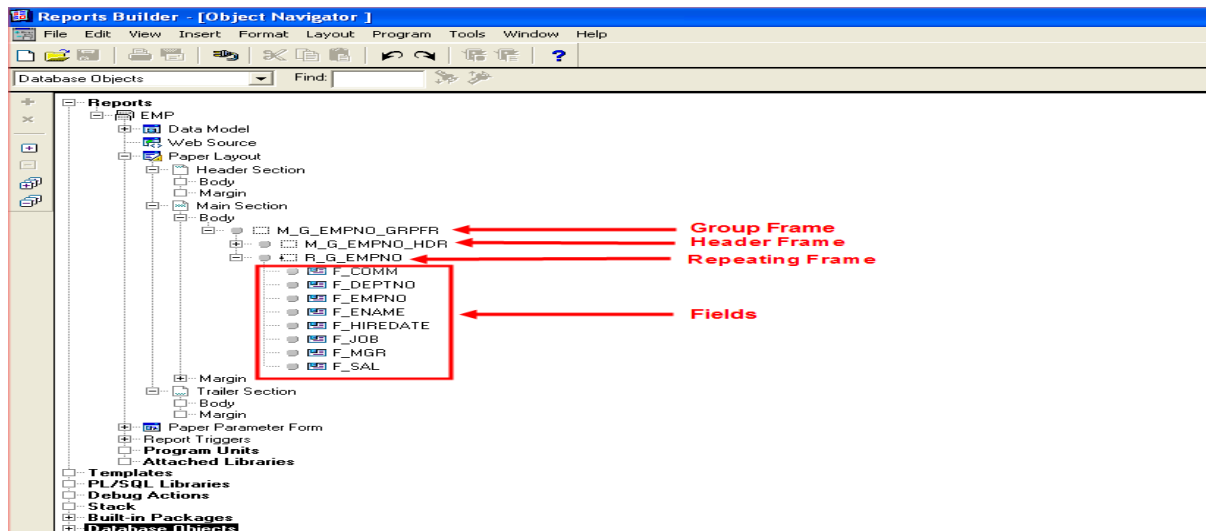Repeating frame represents a group in the query.
There is one-to-one relationship between group and repeating frame.

The last objects are field objects. These objects reside inside the repeating frame.
Field objects display database columns. The field names start with F_ . The fields must be displayed in the repeating frame that corresponds to the group they are in.
When we are creating the layout manually from the scratch we have to be very careful that the fields are placed in the correct repeating frames.
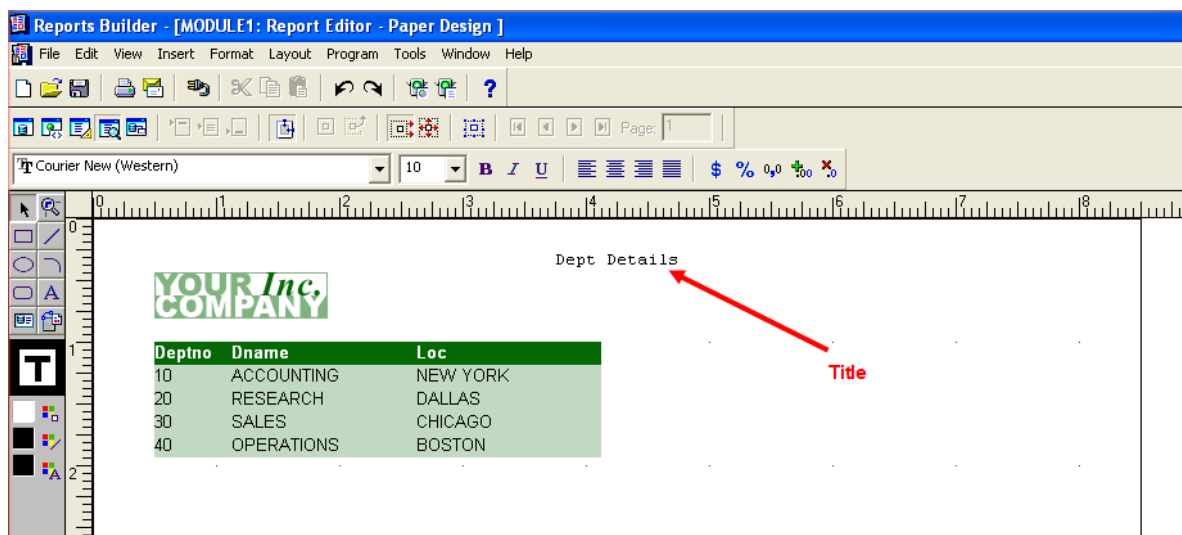
Let us look at another similar example.

Lets us create another report using wizard based on DEPT table

Open the report builder tool

File→ New → Report → Use the report Wizard → OK →Next→ Create both Web and Paper Layout →Next → Title -- Dept Details   Style -- Tabular →SQL Query →Next → Data Source Definition -- Select * from dept →Next → Enter username, password and database details → Connect →move all fields from Available fields to displayed fields → Next →Next →Next → Predefined template -- Green →Next → Finish
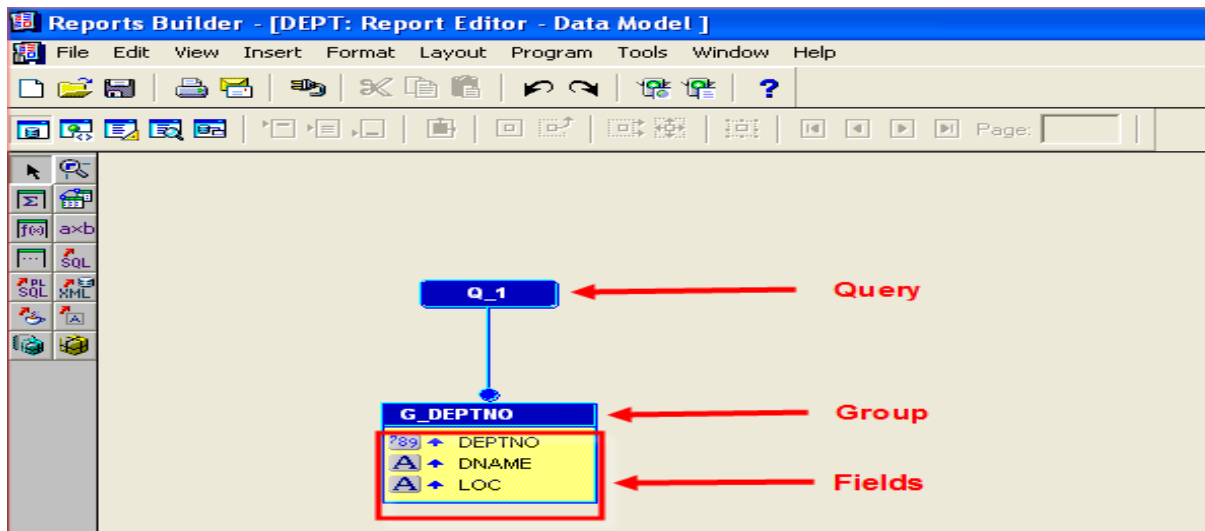
This is how our report looks like.
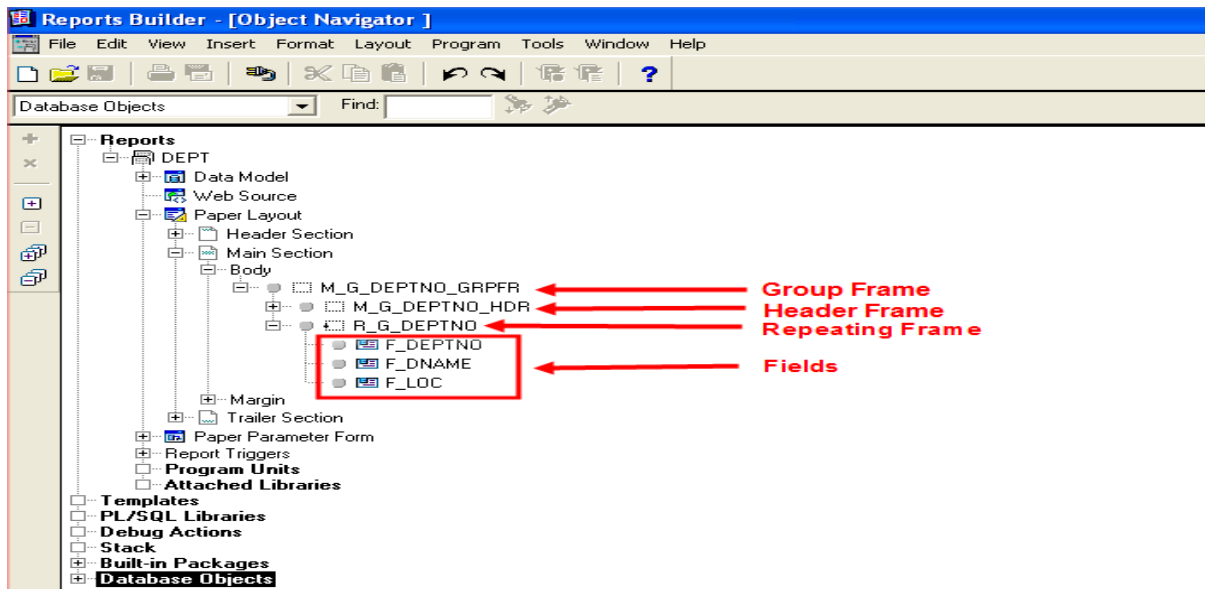

Save the report with the name DEPT.rdf

Similar to our previous example, in the Object Navigator (F5) , double click on the Data Model, we find query, query results in group. Group contains fields.
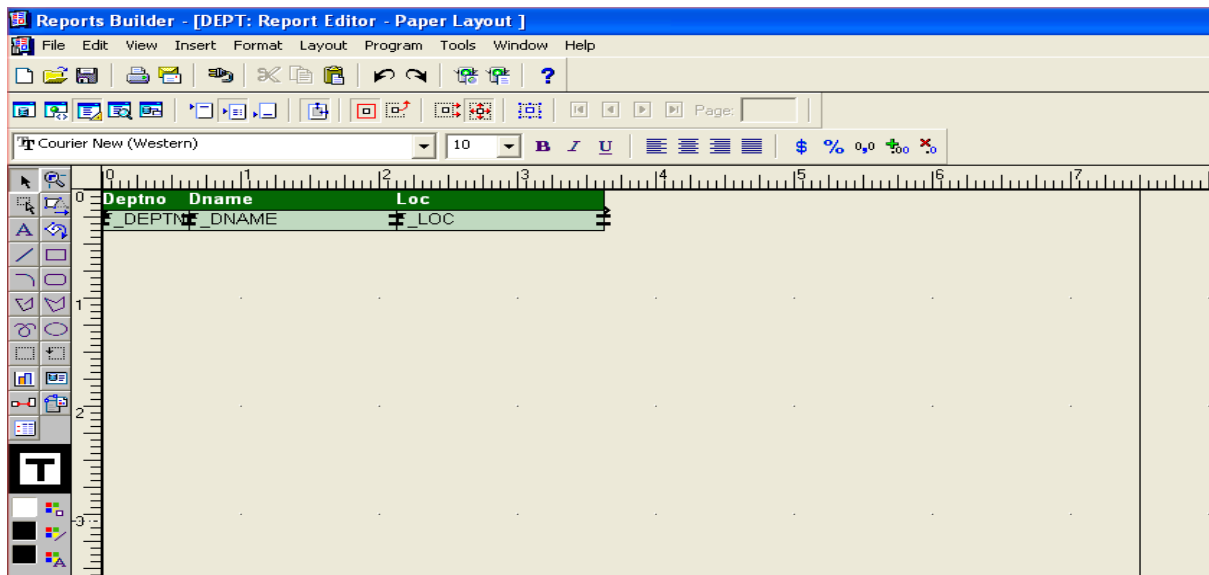
In the Object Navigator, expand paper layout, under main section, we find Group frame, Header frame and Repeating frame. Repeating frame contains fields. This is same as our previous example.
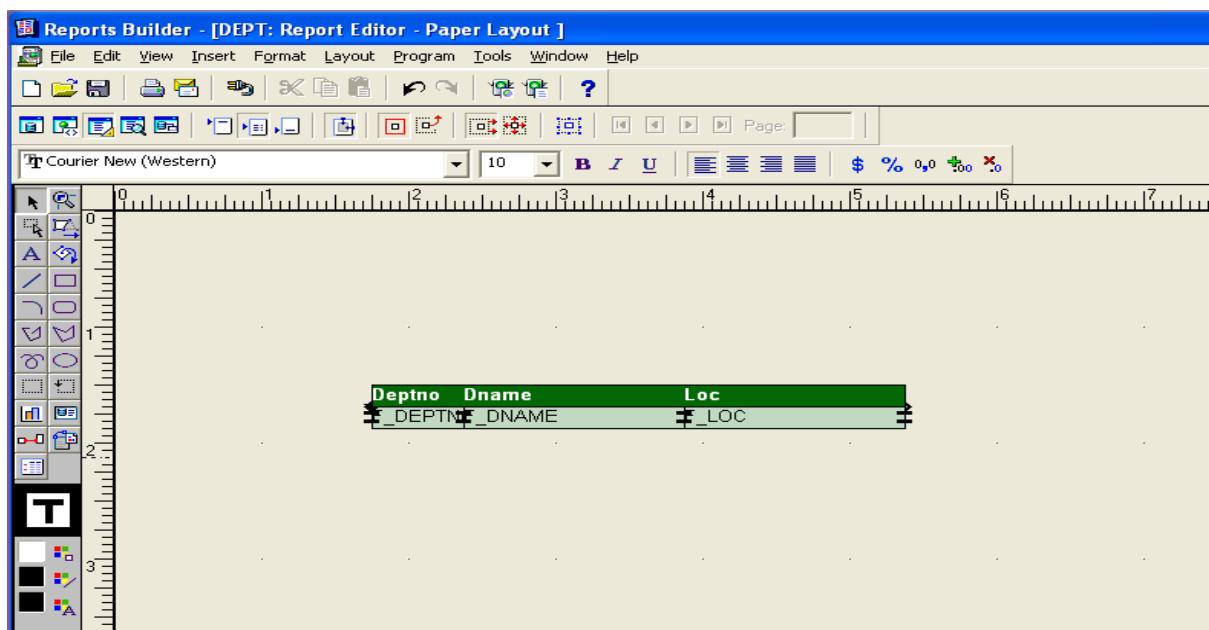

In the Object Navigator, select Paper Layout, Go to Tools Report Editor, we get the paper layout of the report. This layout is designed by the wizard.

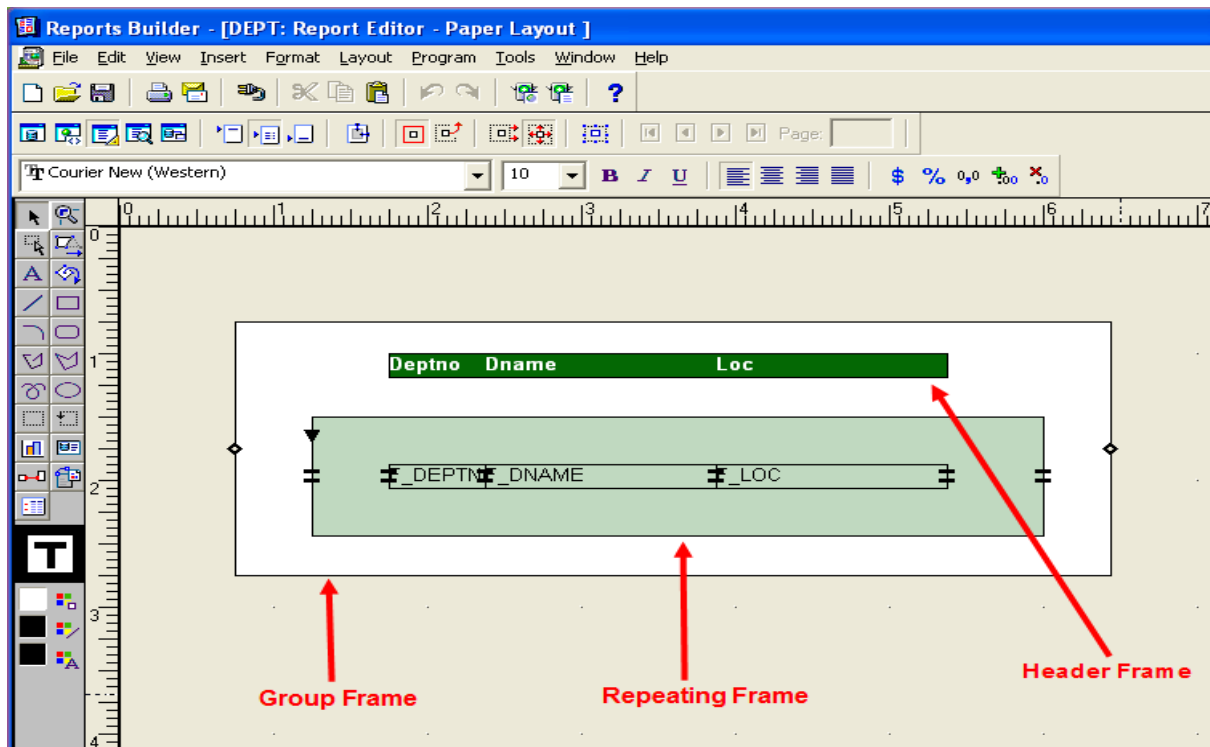 Lets us understand the layout designed by the wizard.

Select all the fields (ctrl + A) move the layout to the centre by using arrow keys in the keyboard.
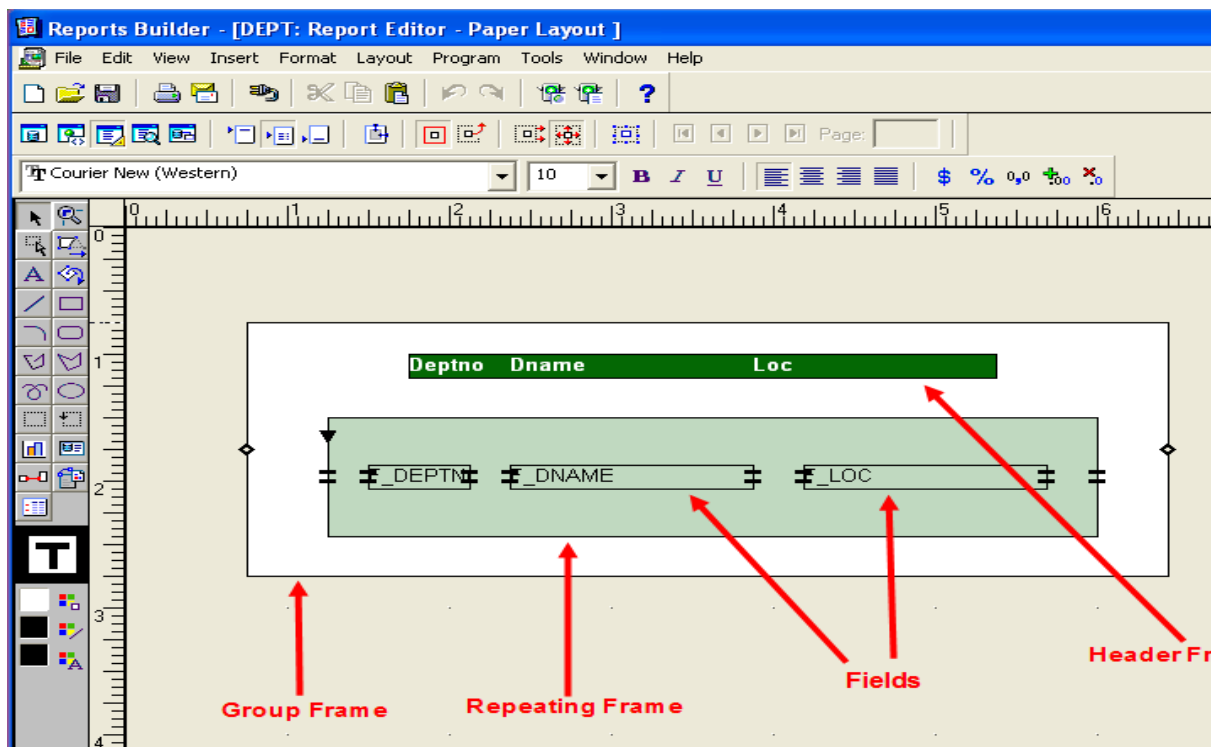

Click on any field and select the outer most frame by clicking "select parent frame" button (two times)
Expand outermost frame to all the directions by using mouse.

Select column heading loc , select its parent frame by clicking "Select parent frame" button.
Click on Flex Off button.
Move the header frame towards up (by using arrow keys).

Click on LOC field, select its parent frame and expand to all directions by using mouse.

Select LOC field and move the field towards right by using arrow key.
Select DEPTNO field and move the field towards left by using arrow key.

By looking at the above layout, we can understand arrangement of frames done by the wizard.
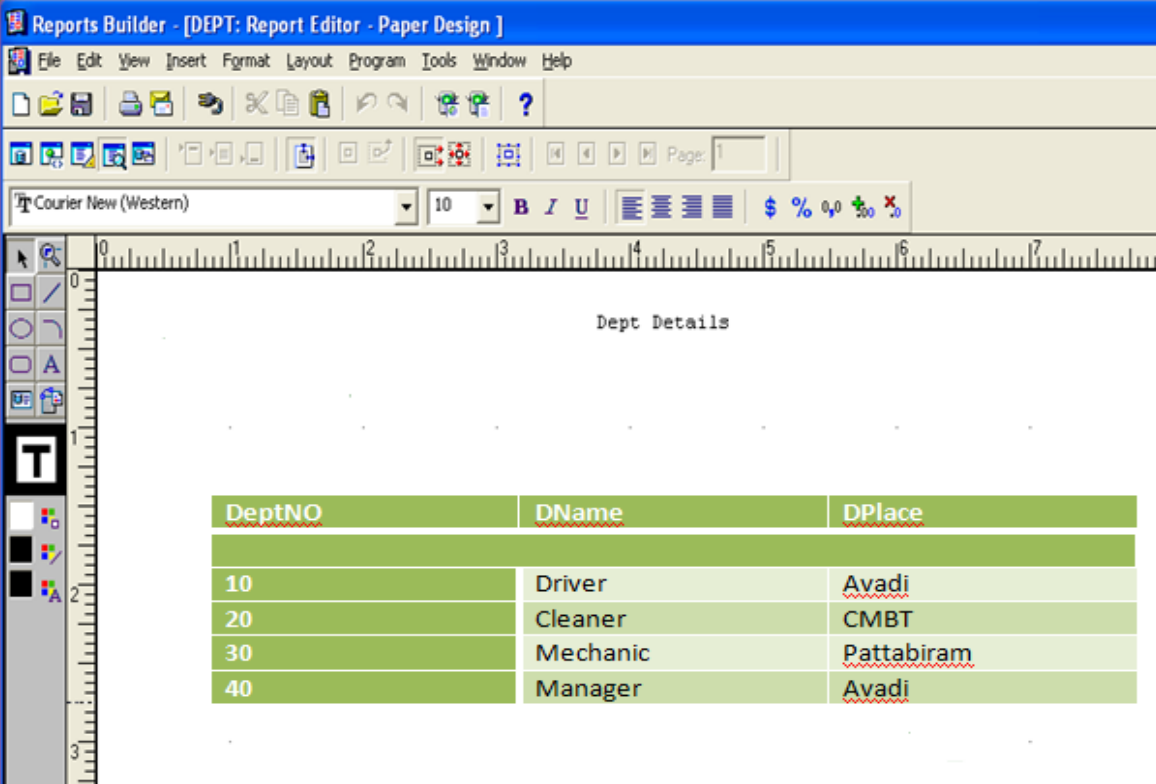All the fields in the repeating frame will be repeated for every row in the query.
The changes which we have done to the layout is just for our understanding purpose.

Save the changes (File ➜ Save)
Run the report (Program ➜ Run Paper Layout)
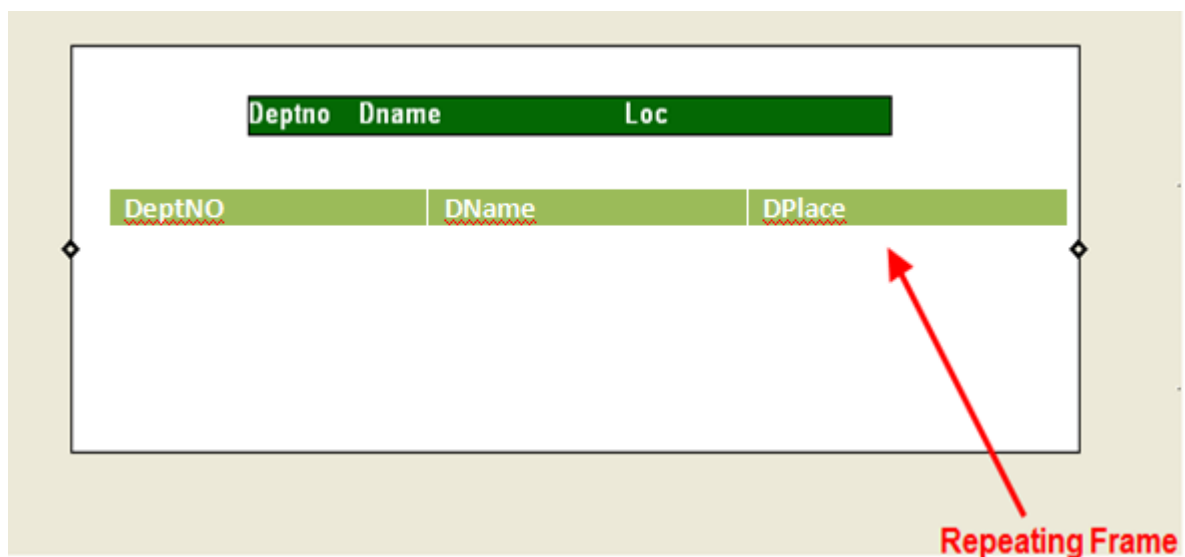
Look at the output below

In the output, we see big distance between the records. Because in the layout the width of the repeating frame is more.
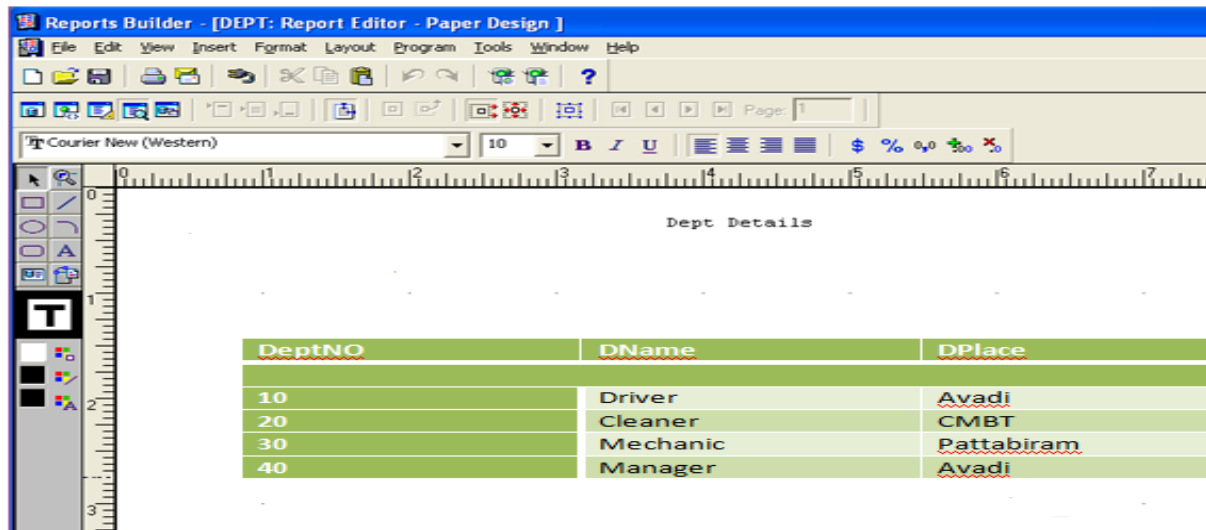Let us decrease the width of the repeating frame in the paper layout.

Save the report.
Run the report.

Look at the output below

Observe, there is noticeable distance between the rows now.

RESULT

      Designing Forms and handling insert, delete, modify through Database Connectivity using Oracle Form builder has done successfully.