D2K / Reports

Lab Book

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Document Revision History

Date	Revision No.	Author	Summary of Changes
11-Aug-2011	1.0	Amit Sali	Content Creation

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Getting Started

Overview

This lab book is a guided tour for learning EAS oracle application. It comprises 'To Do' assignments. Follow the steps provided and work out the 'To Do' assignments.

Setup Checklist for EAS Oracle Application

Here is what is expected on your machine in order for the lab to work.

Minimum System Requirements

- Intel Pentium 90 or higher (P166 recommended)
- Microsoft Windows 95, 98, or NT 4.0, 2k, XP.
- Memory: 32MB of RAM (64MB or more recommended)
- Internet Explorer 6.0 or higher

Instructions

- For all coding standards refer Appendix A. All lab assignments should refer coding standards.
- Create a directory by your name in drive <drive>. In this directory, create a subdirectory <eas orapps>_assgn. For each lab exercise create a directory as lab <lab number>.

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Problem Statement / Case Study

Table descriptions and data considered in this lab book:

EMP Table

SQL>DESC EMP

Name	Null?	Type
EMPNO	NOT NULL	NUMBER(4)
ENAME		VARCHAR2(10)
JOB		VARCHAR2(50)
MGR		NUMBER(4)
HIREDATE		DATE
SAL		NUMBER(7,2)
COMM		NUMBER(7,2)
DEPTNO		NUMBER(2)

SQL>SELECT * FROM EMP

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800		20
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7788	SCOTT	ANALYST	7566	09-DEC-82	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000		10
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7876	ADAMS	CLERK	7788	12-JAN-83	1100		20
7900	JAMES	CLERK	7698	03-DEC-81	950		30

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7902	FORD	ANALYST	7566	03-DEC-81	3000		20
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

14 rows selected.

DEPT Table

SQL>DESC DEPT

Name	Null?	Type
DEPTNO		NUMBER(2)
DNAME		VARCHAR2(14)
LOC		VARCHAR2(13)

SQL>SELECT * FROM DEPT

DEPTNO	DNAME	LOC
10	ACCOUNTING	NEW YORK
20	RESEARCH	DALLAS
30	SALES	CHICAGO
40	OPERATIONS	BOSTON

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SALGRADE Table

SQL>DESC SALGRADE

Name	Null?	Type
GRADE		NUMBER
LOSAL		NUMBER
HISAL		NUMBER

SQL>SELECT * FROM SALGRADE

GRADE	LOSAL	HISAL
1	700	1200
2	1201	1400
3	1401	2000
4	2001	3000
5	3001	9999

BONUS Table

SQL>DESC BONUS

Name	Null?	Type
ENAME		VARCHAR2(10)
JOB		VARCHAR2(9)
SAL		NUMBER
COMM		NUMBER

SQL>SELECT * FROM BONUS
no rows selected

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Lab 1. Wizard based report creation

Goals	• Create a report using wizard.
Time	

1.1: Create a tabular report

The steps in this lab will walk you through the wizard for creating report.

You will have to do the following tasks:

1. Create a report using wizard
2. Saving the report
3. Executing the report

Solution:

Step 1: Start Report Builder Open reports6i Application, by selecting

Start → Programs → Oracle Reports 6i – OraHome62 → Report Builder.

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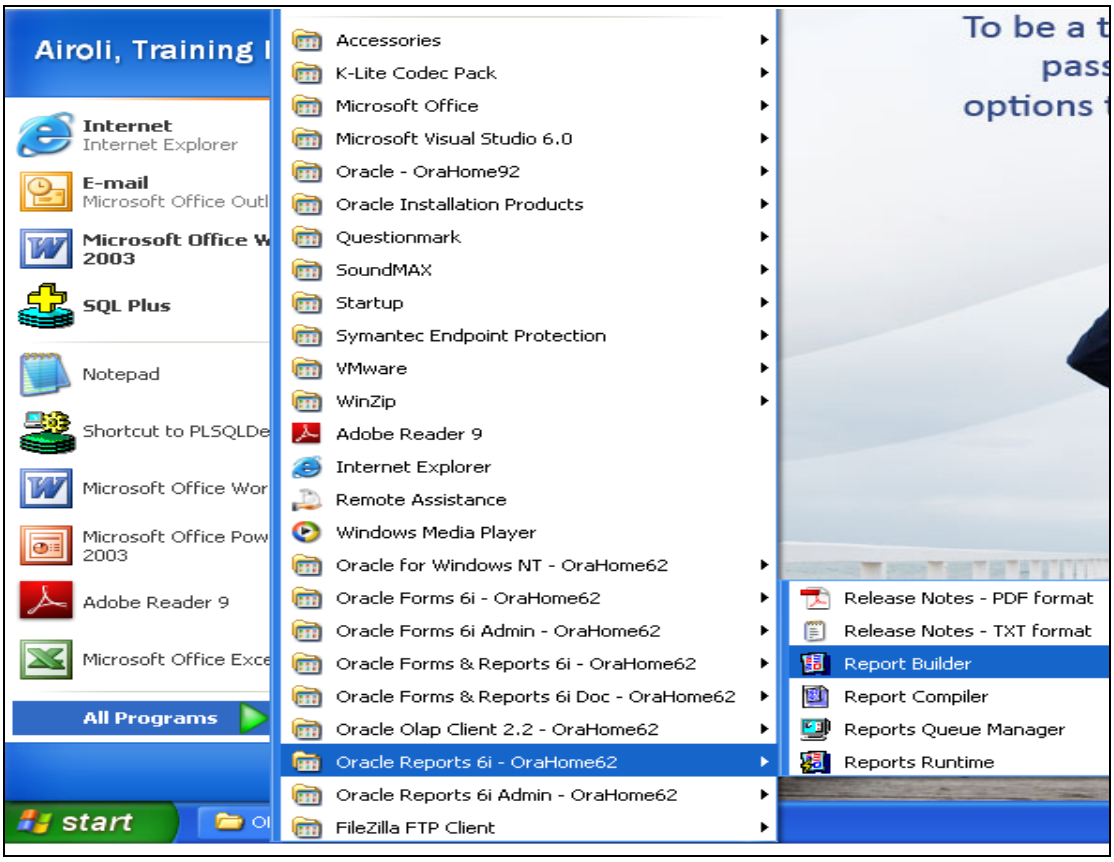

Figure 1: Start Report Builder

Step 2: The option 'Use the report wizard' is automatically selected for the first time, so click on the OK button.

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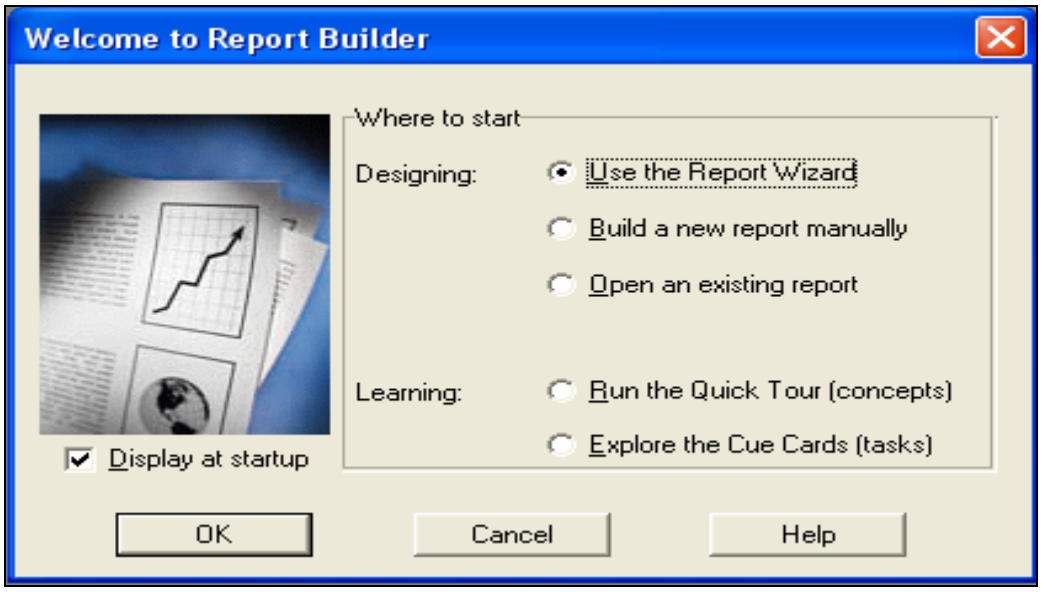

Figure 2: Welcome Screen of Report Wizard

Step 3: Next comes the welcome screen of report wizard. Click next.

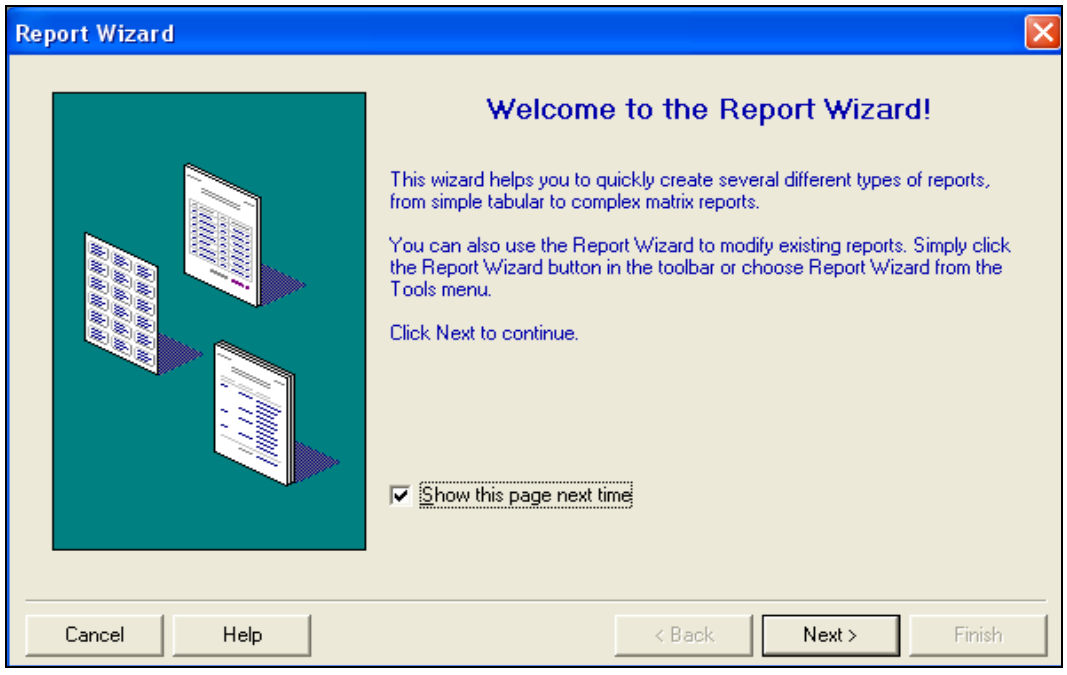

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Figure 3: Welcome Screen of Report Wizard

Step 4: Choose tabular from the available styles of report and click next.

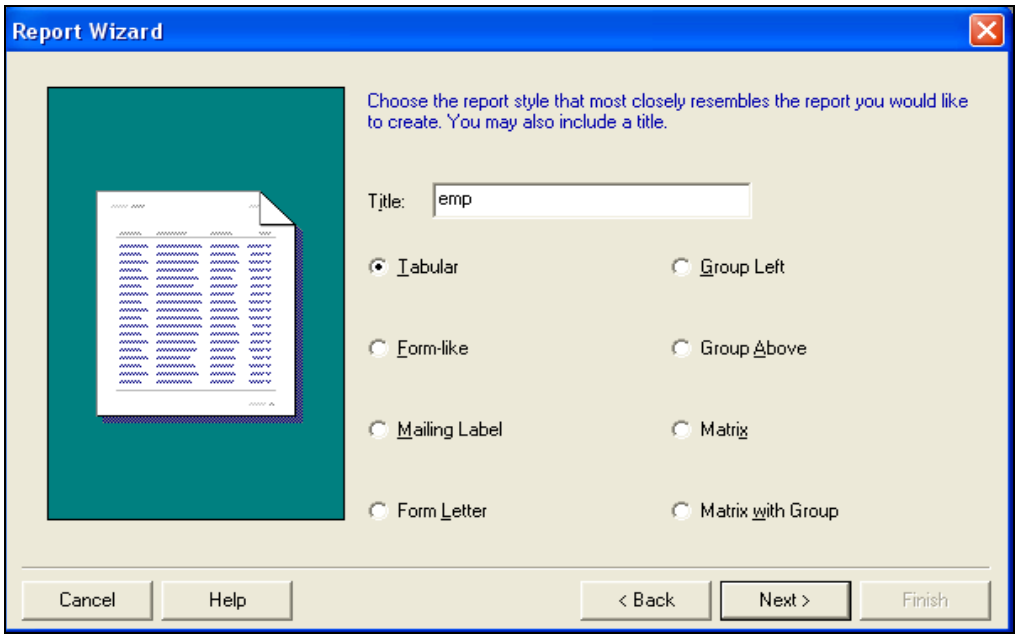

Figure 4: Report Wizard Style Page

Step 5: Choose SQL statement option to write the query.

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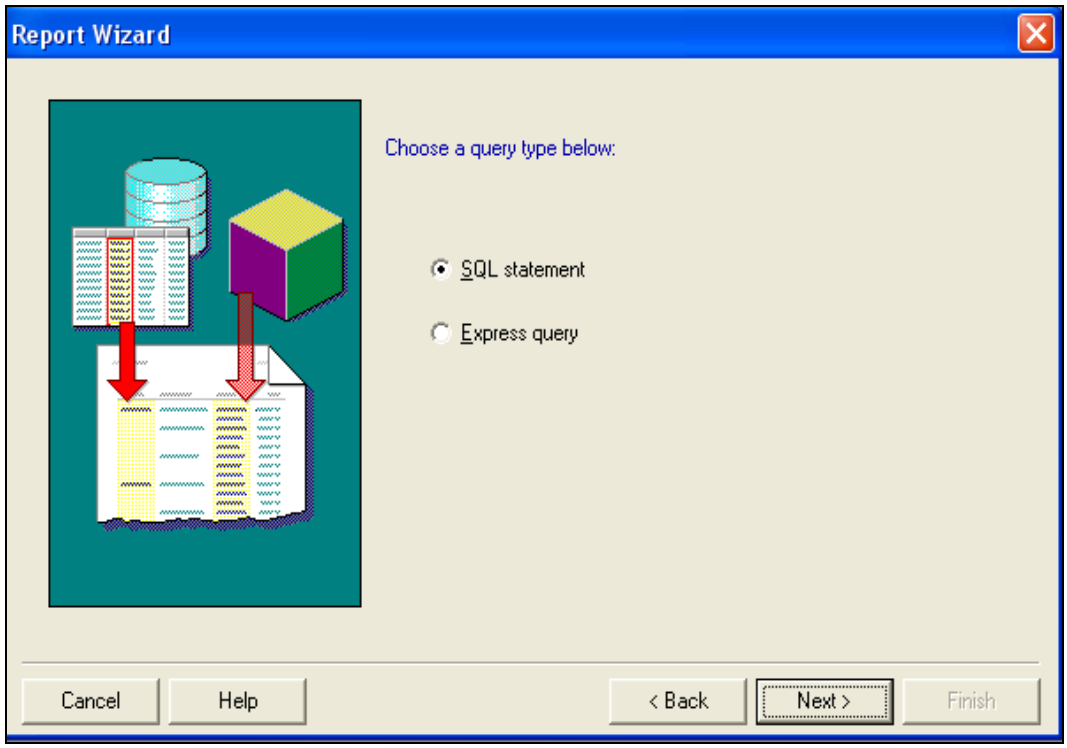
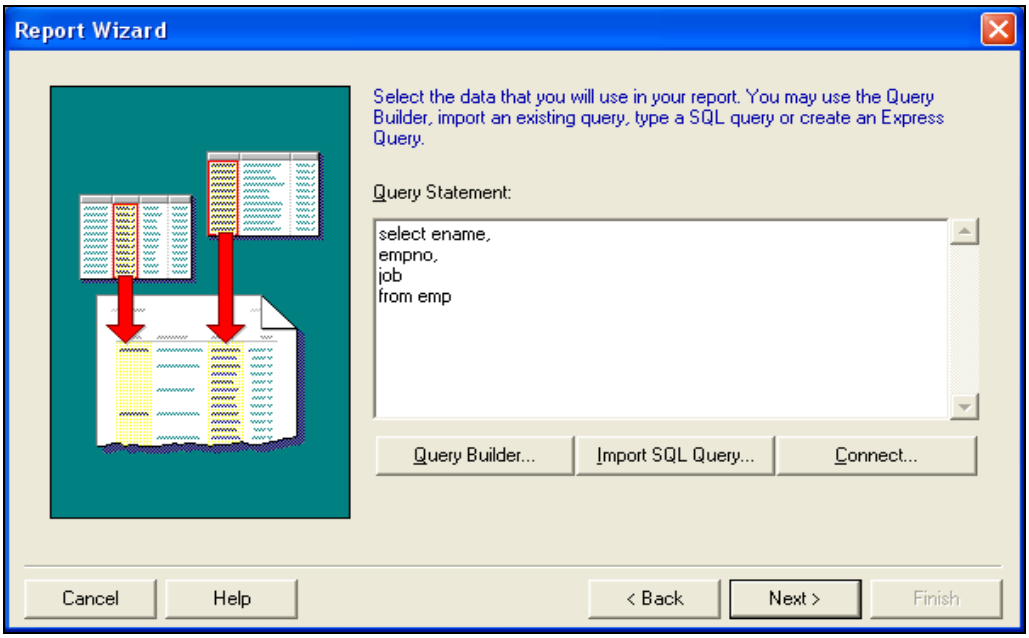


Figure 5: Query page 1

Step 6: Write the query to be executed in the area provided and click the connect button.



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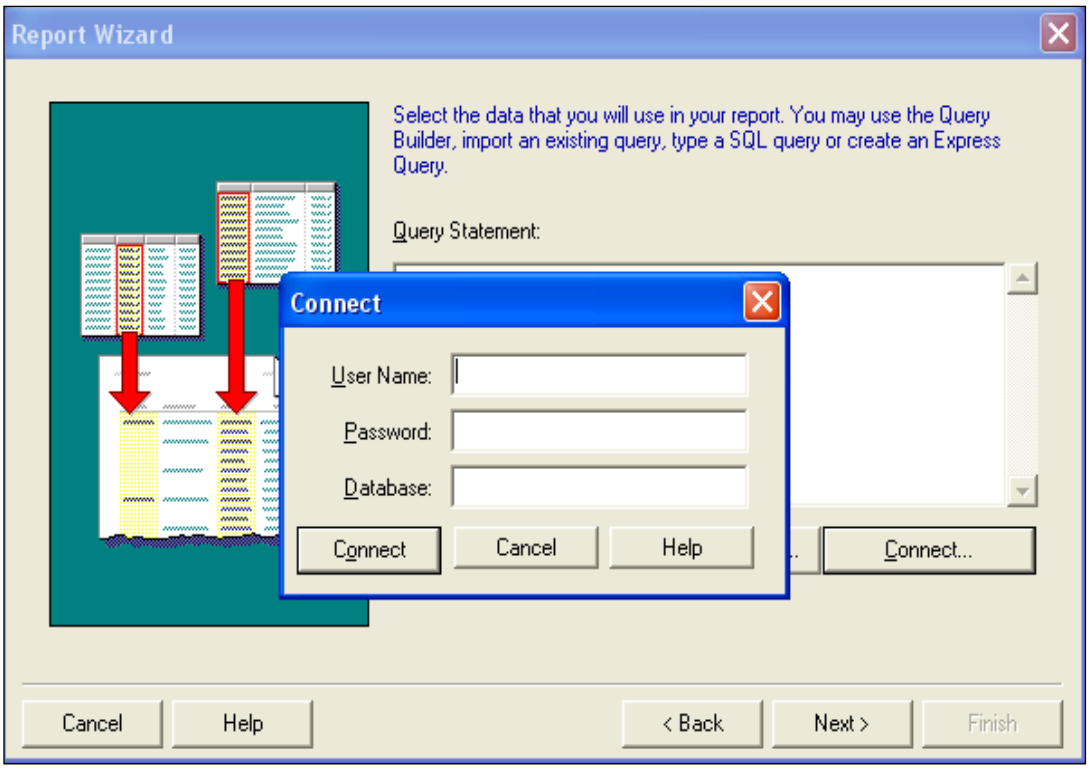

Figure 6: Query page 2

Step 7: Enter the valid username and password and also the database to which you want to get connected and click connect button. Click next.

Figure 7: Connection dialog box

Step 8: Select the fields which you want to display in your repot from the available fields and put them into the displayed fields. To select all the fields use the double right arrowed button.

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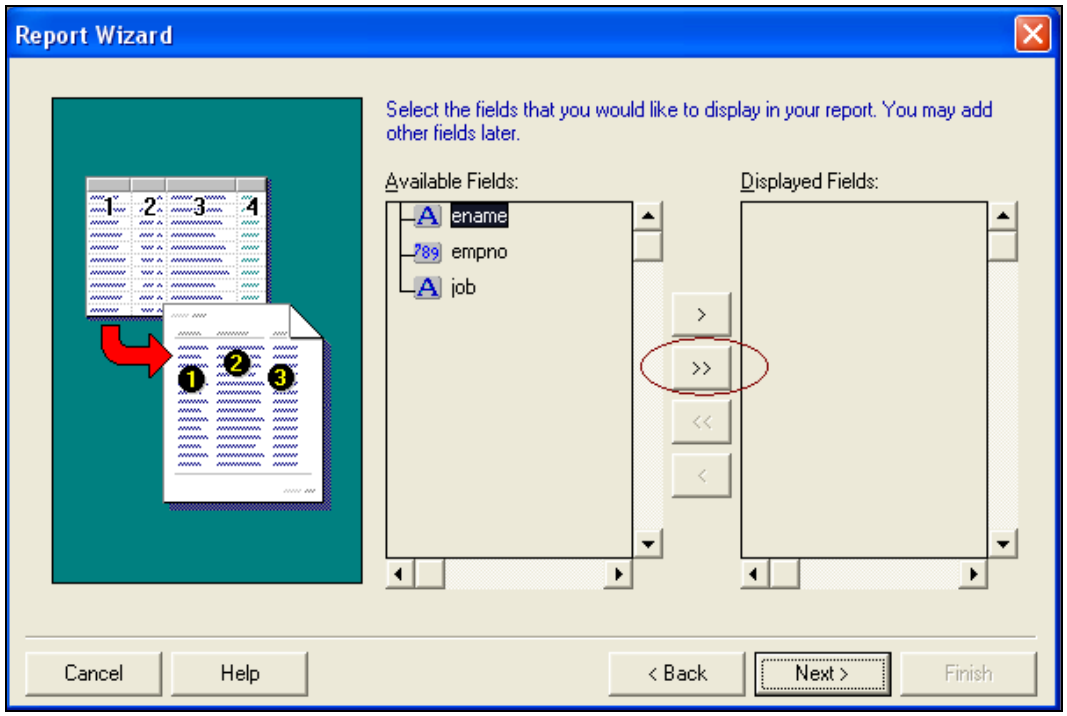

Figure 8: Field selection

Step 9: Select all the available fields and put them into the displayed field box.

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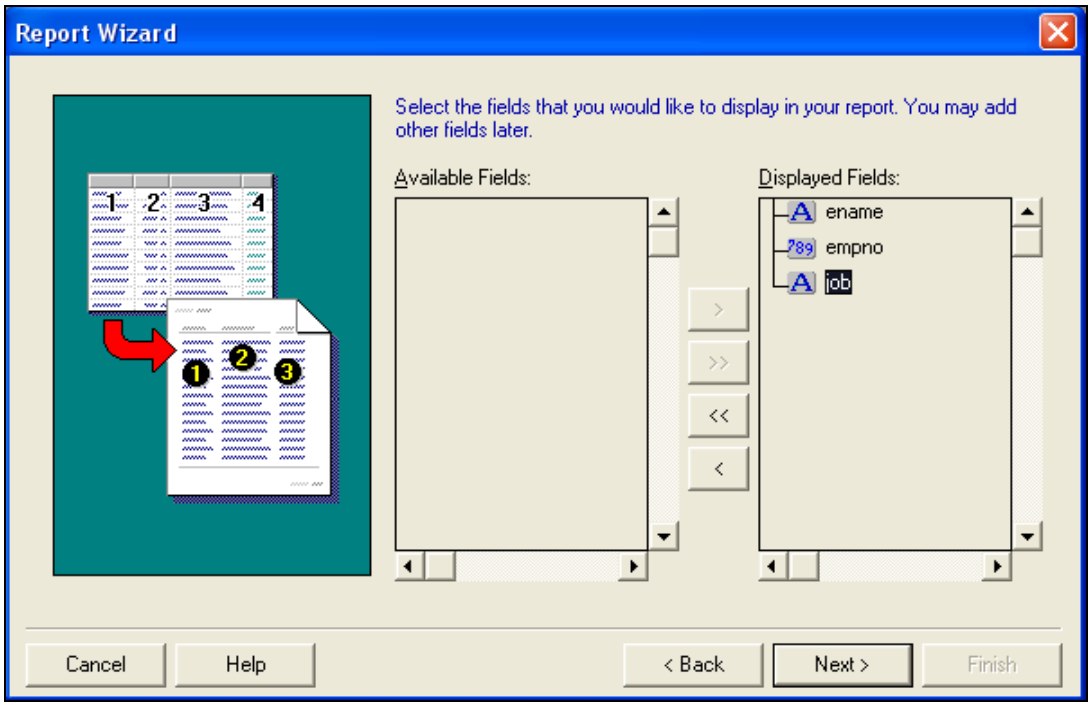

Figure 9: Field selection

Step 10: Computations can be done in this screen.

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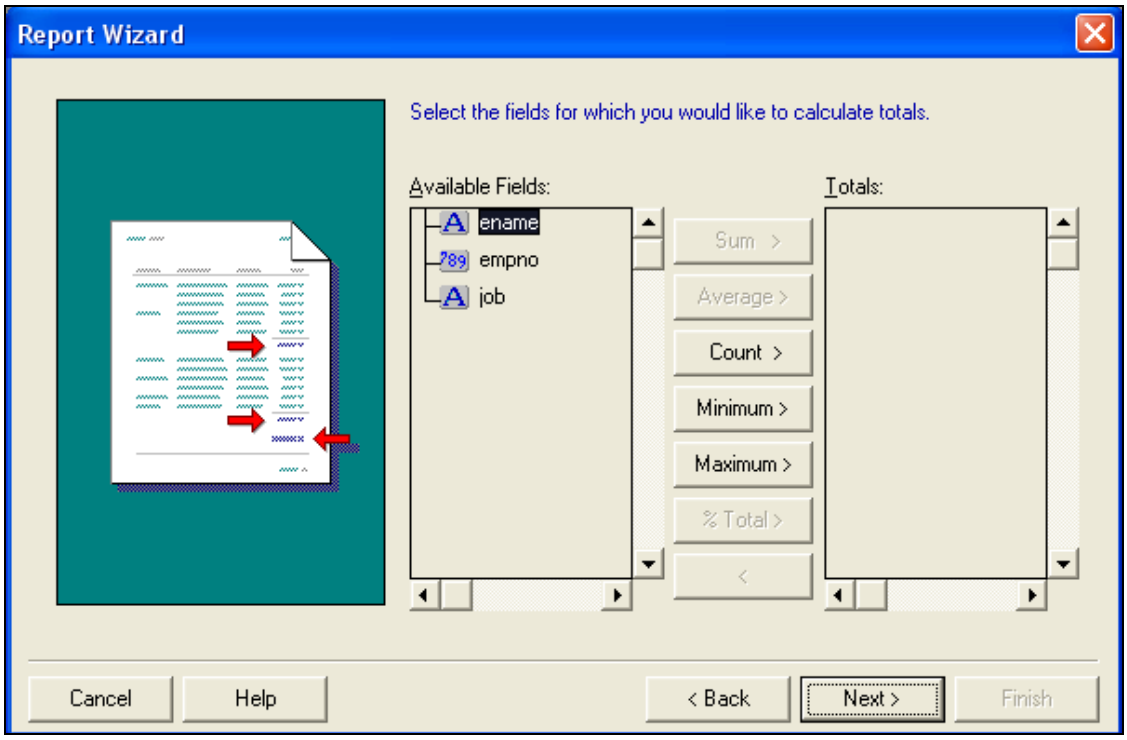

Figure 10: Total page

Step11: This screen allows you to enter the labels and width for the field names.

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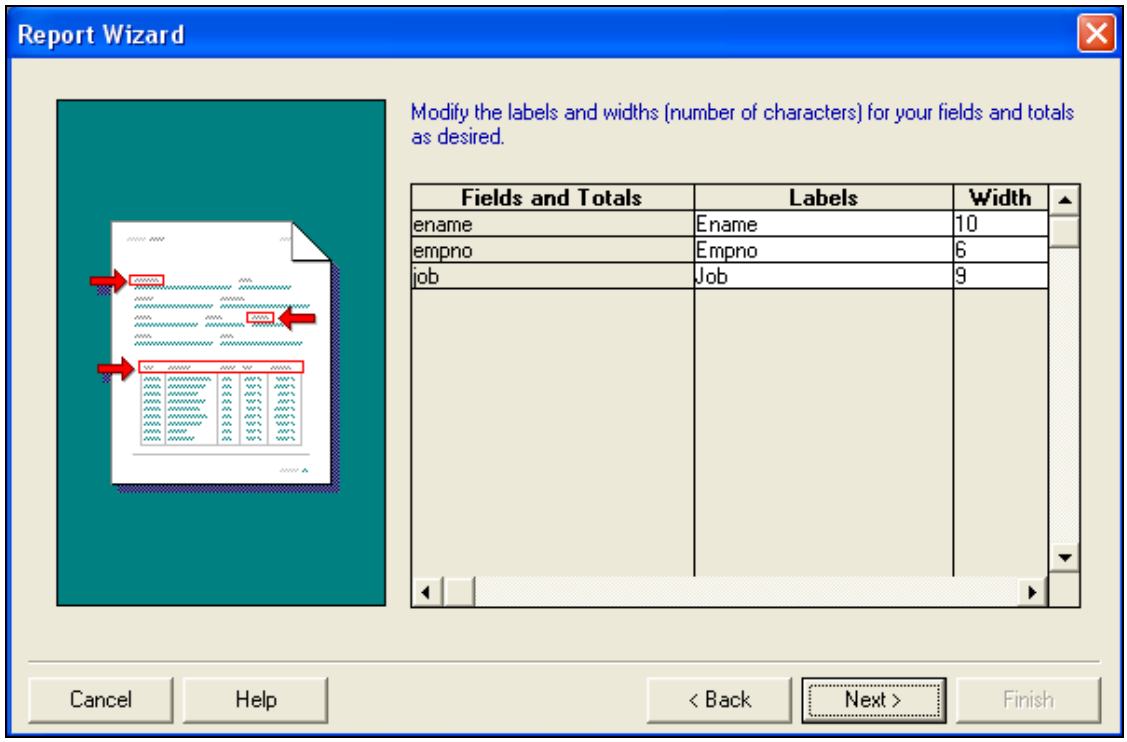

Figure 11: Labels page

Step 12: This screen allows you to define the templates for the report.

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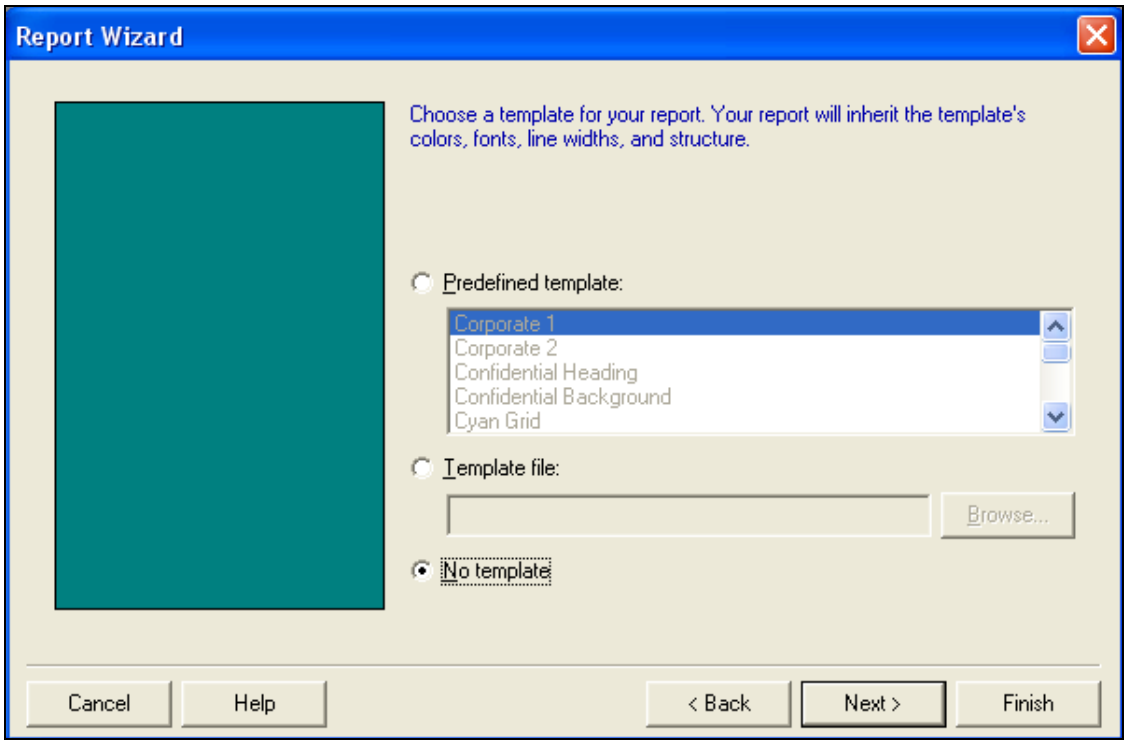

Figure 12: Template page

Step 13: You are now ready to exit the report wizard.

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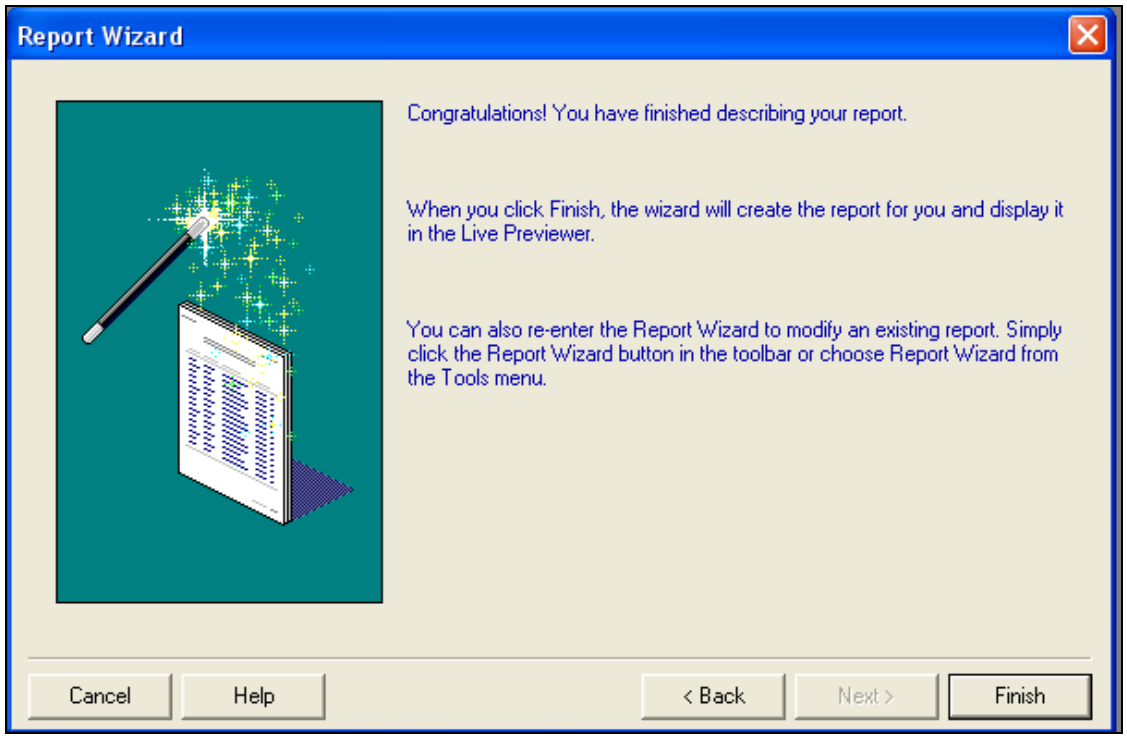

Figure 13: Finish page

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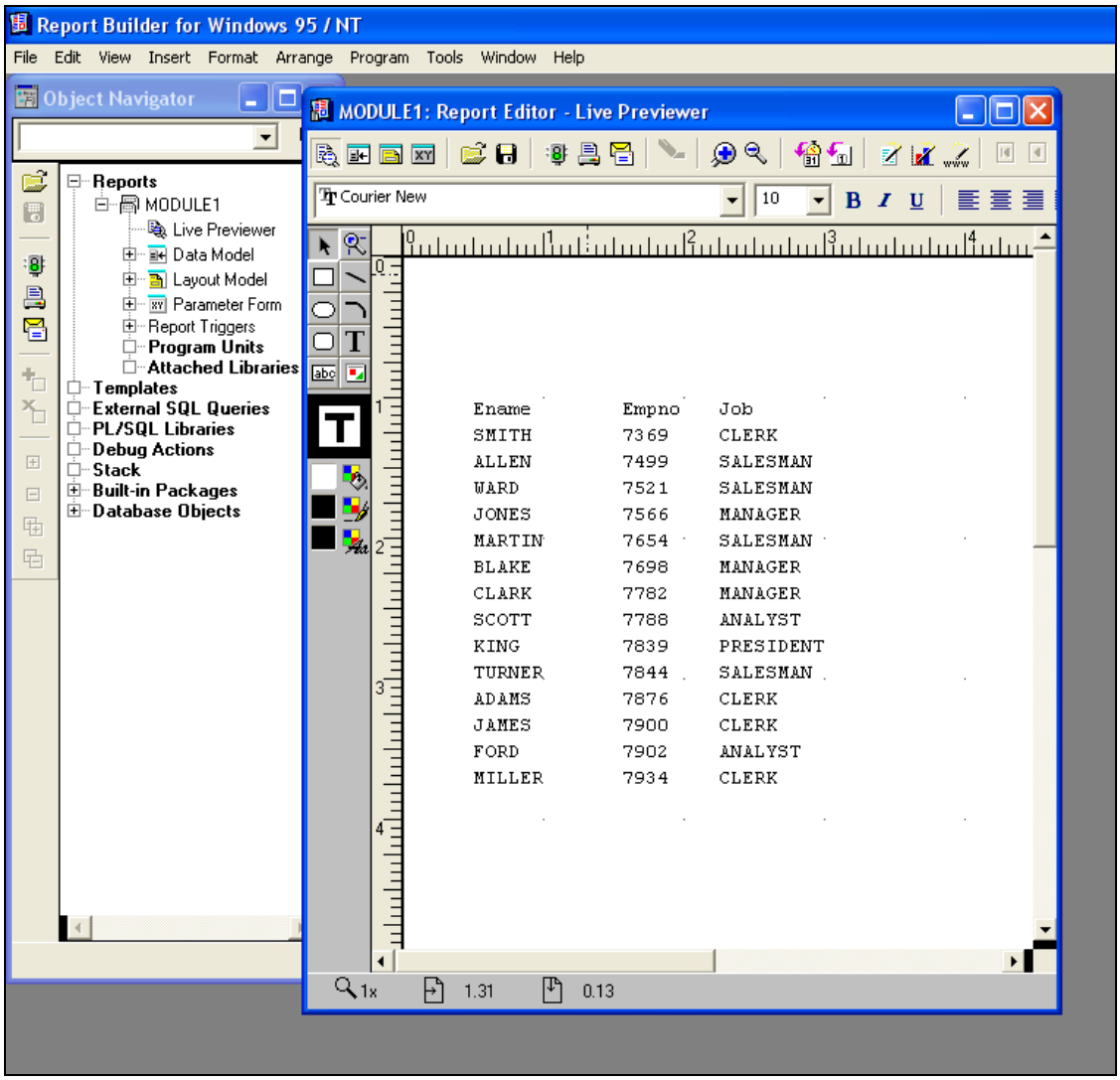

Figure 14: Report Editor Live Previewer

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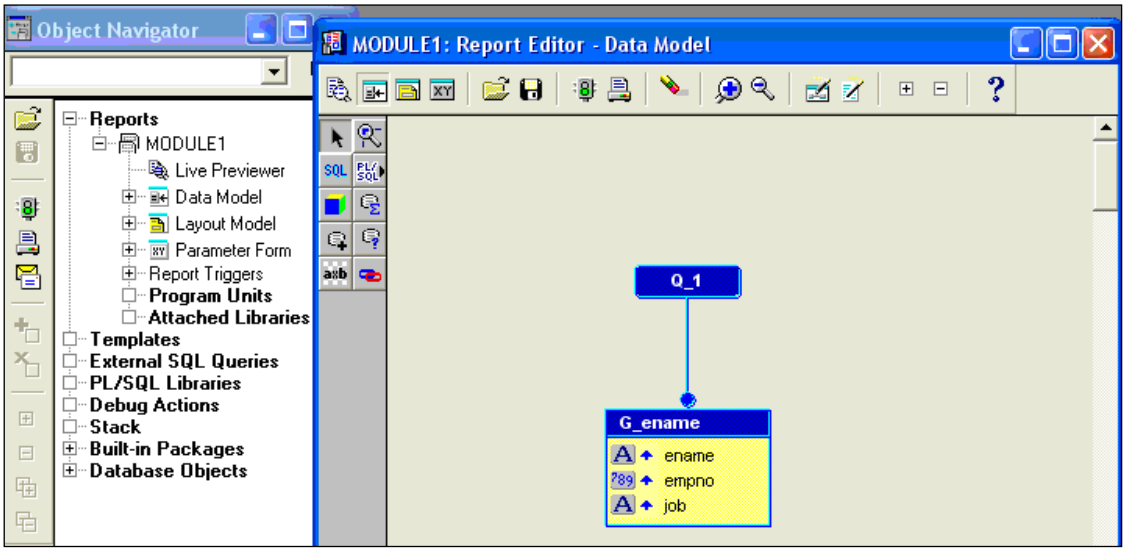

Figure 15: Report Editor Data Model

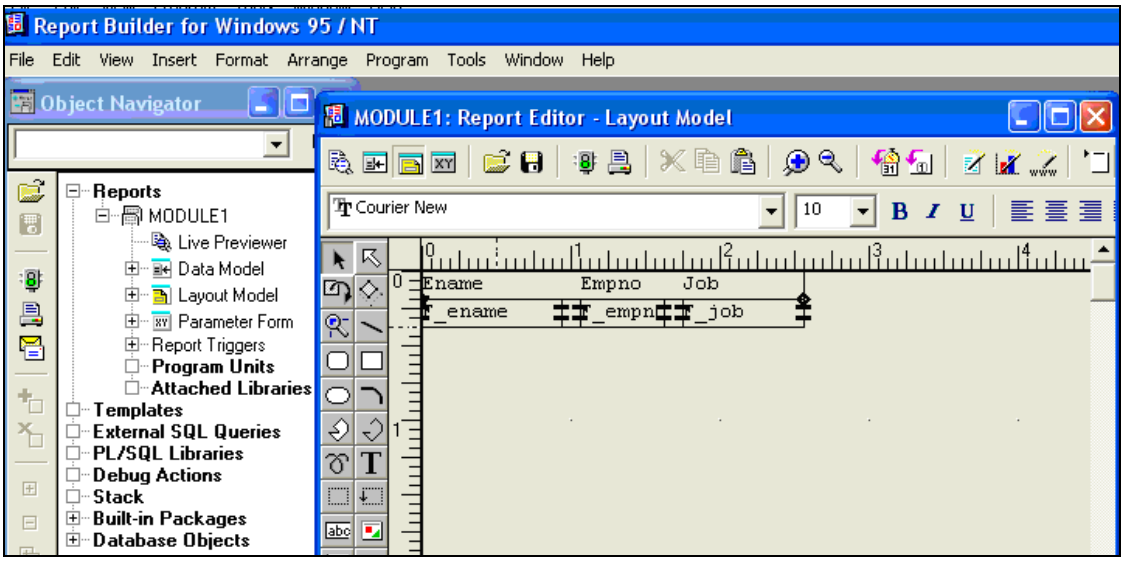

Figure 16: Report Editor Layout Model

1.2. Create a report which displays all the employee details using wizard (**To Do**).

1.3. Manually create a report which displays the employee name, employee ID and salary of all the employees present in the employee table (**To Do**).

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Lab 2. Group Report

Goals	To create a group report
Time	

2.1: Creating group report

Solution:

Follow **steps 1-5** from **LAB 1**.

Step 6: Enter the query to be executed and connect to the database.

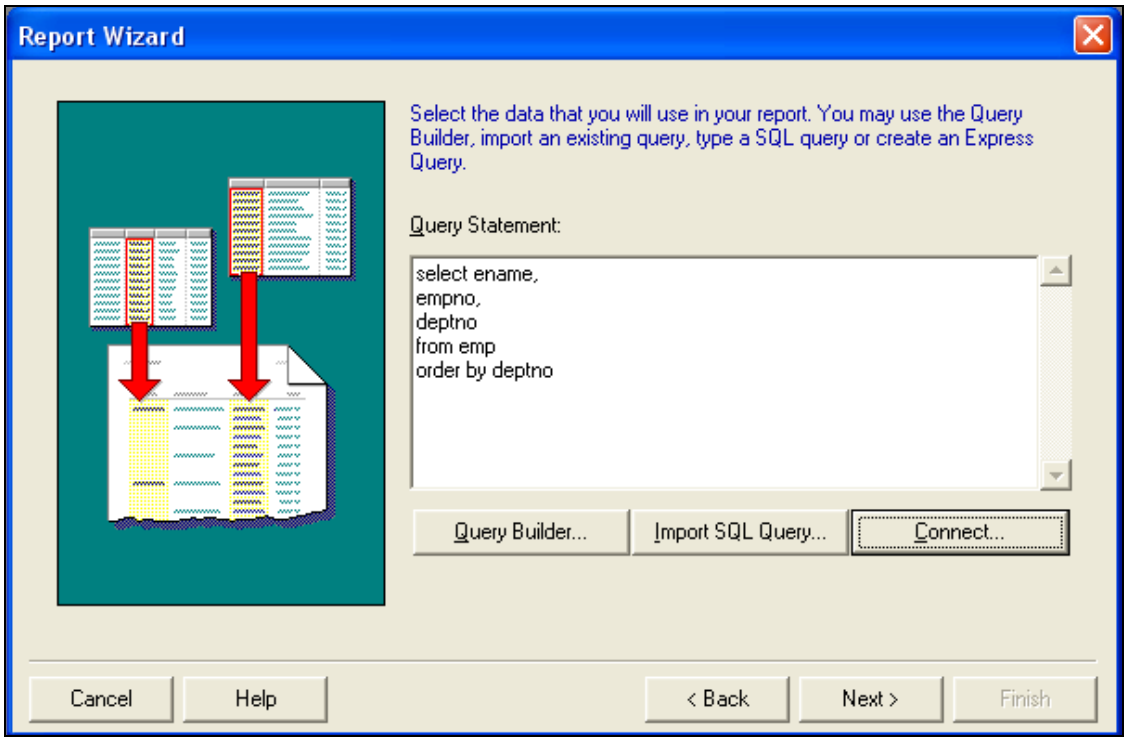

Figure 17: Query page

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Step 7: Add the column which is supposed to be grouped to the group fields.

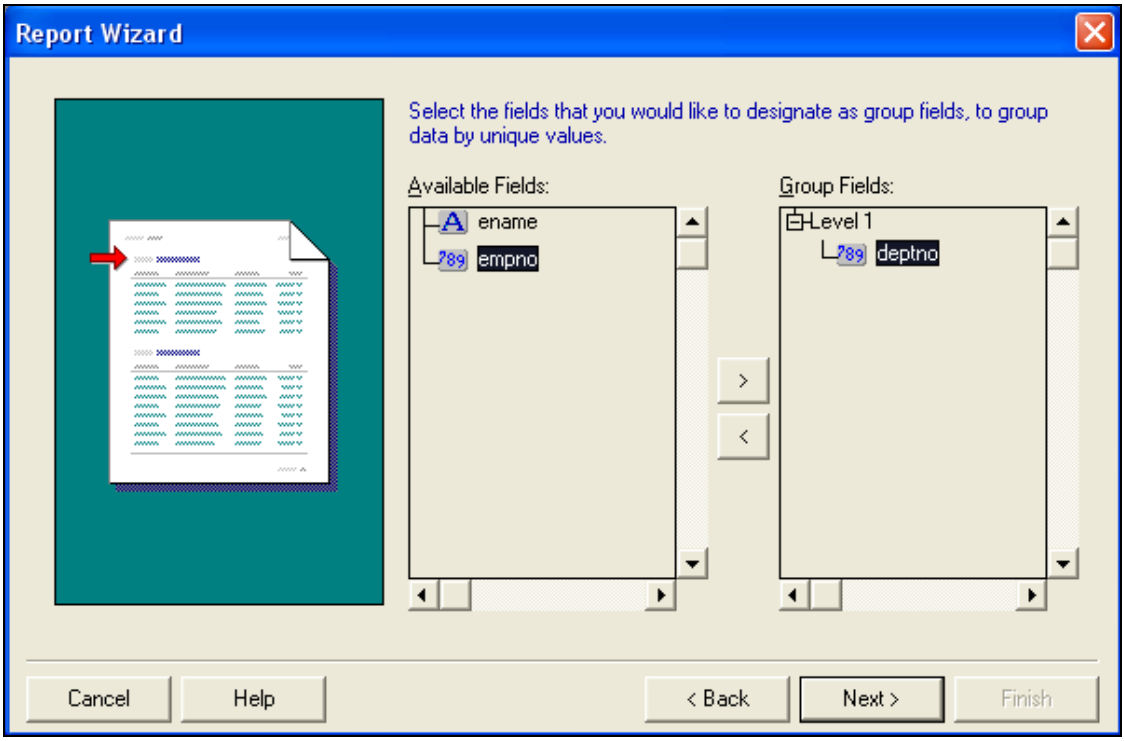

Figure 18: Groups page

Follow **Steps 8 to 13** from **LAB 1.**

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Step 14:

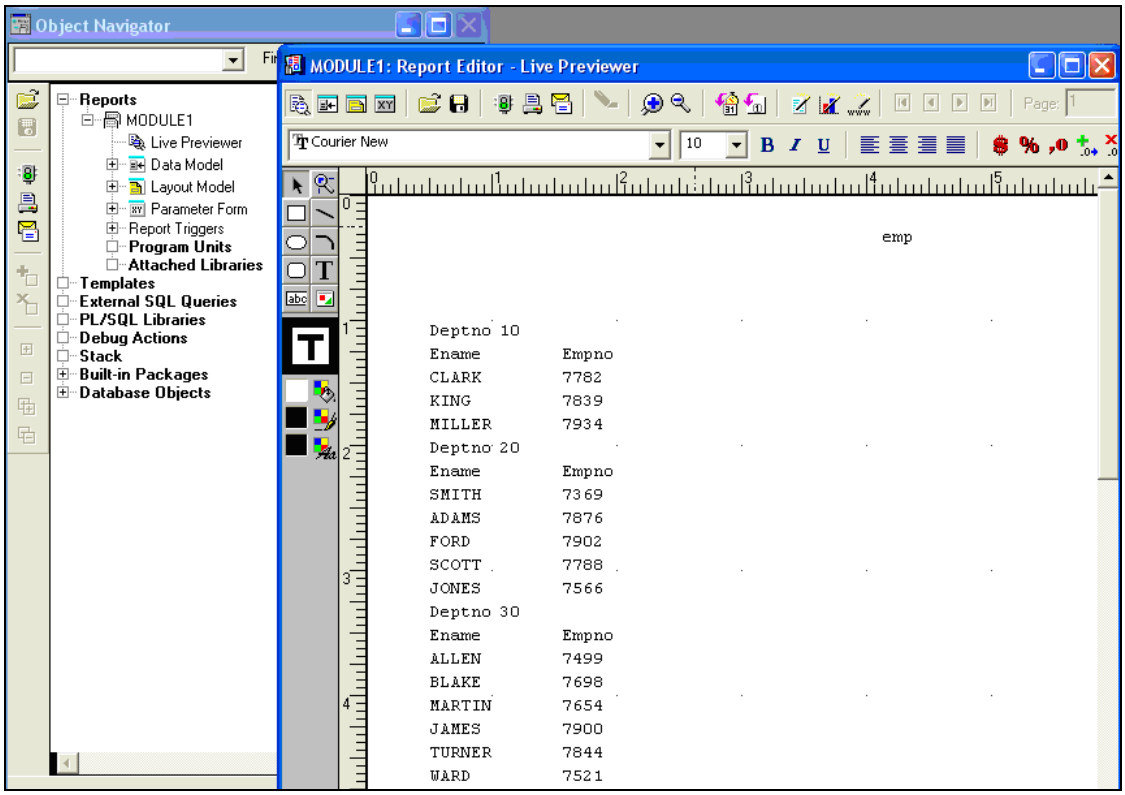

Figure 19: Group report created

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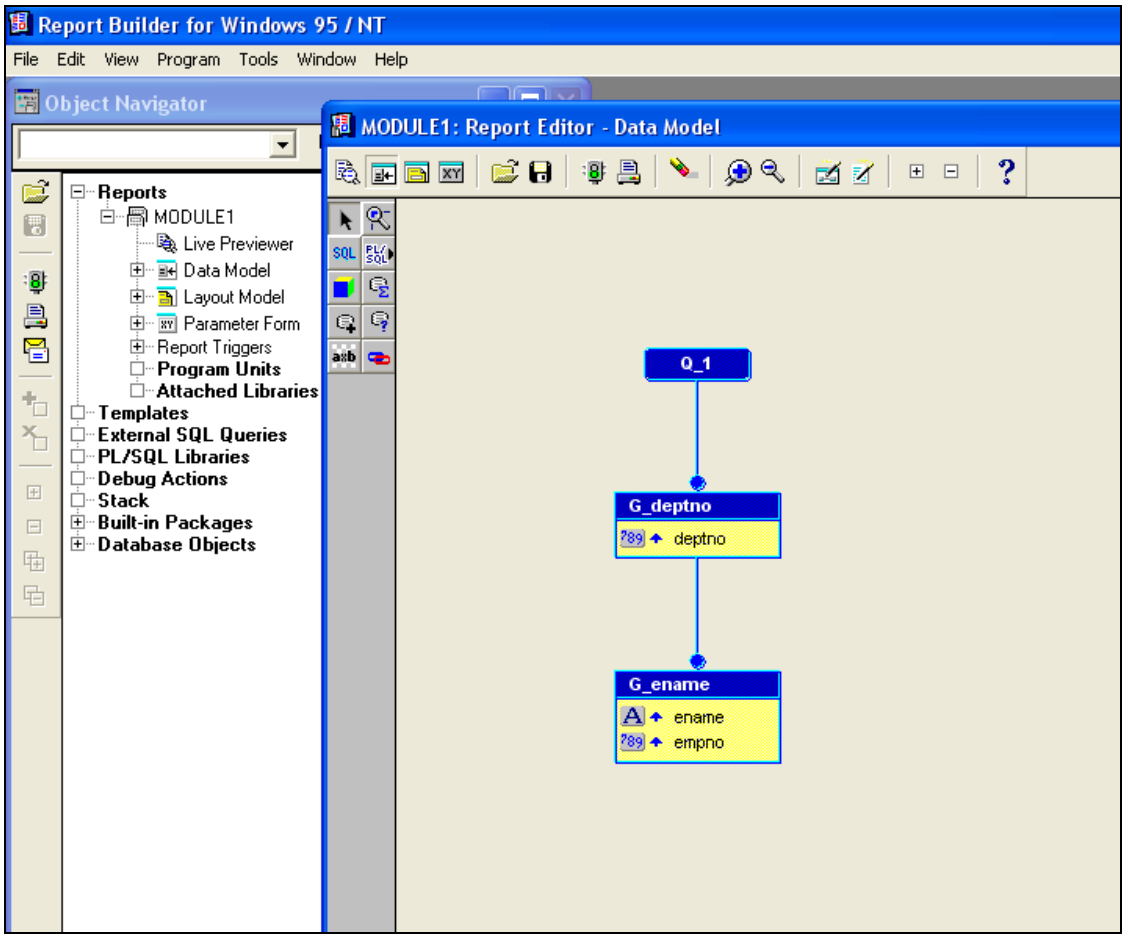

Figure 20: Data model window for Group report

2.2. Manually create a report that displays the employee details department wise (**To Do**).

2.3. Create a group left style report using wizard that displays the employee names in the hierarchical pattern with respect to their designations (**To Do**).

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Lab 3. BIND AND LEXICAL PARAMETERS

Goals	• To create bind variables with LOVs • To create Lexical parameters
Time	

3.1: Bind parameter with LOVs

Solution:

Follow **Steps 1 to 5** from **LAB 1.**

Step 6: Enter the query with a bind parameter.

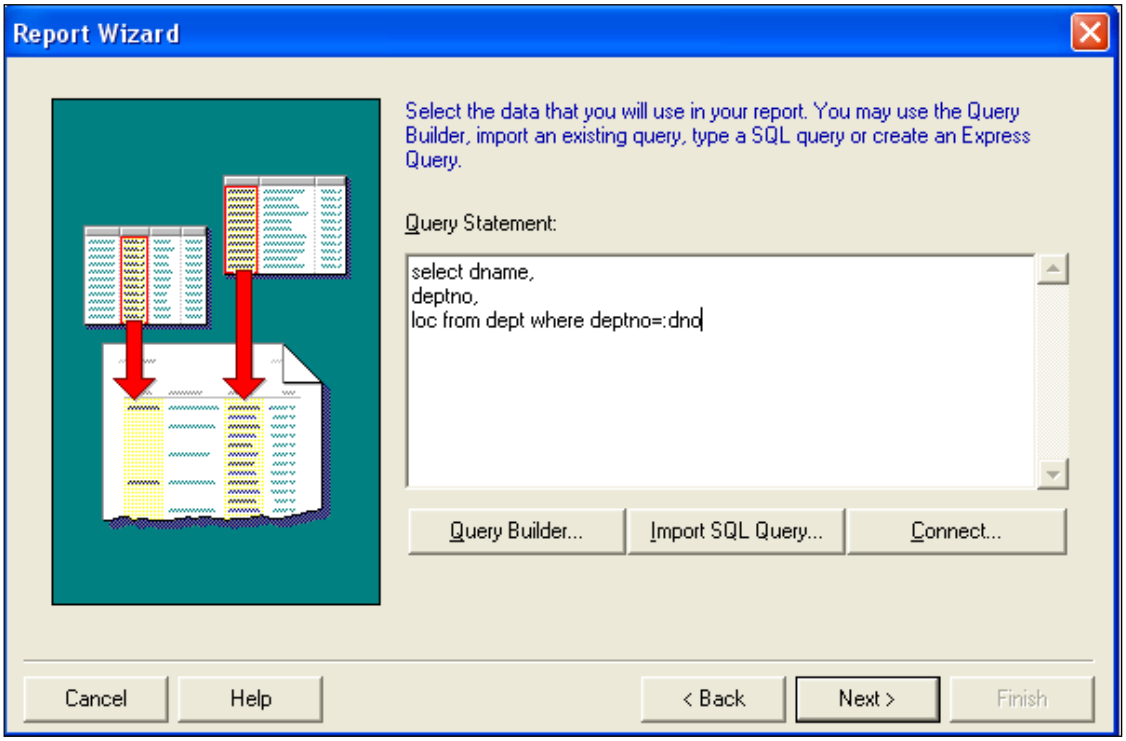

Figure 21: Query Page

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Message displayed confirming the creation of bind variable.

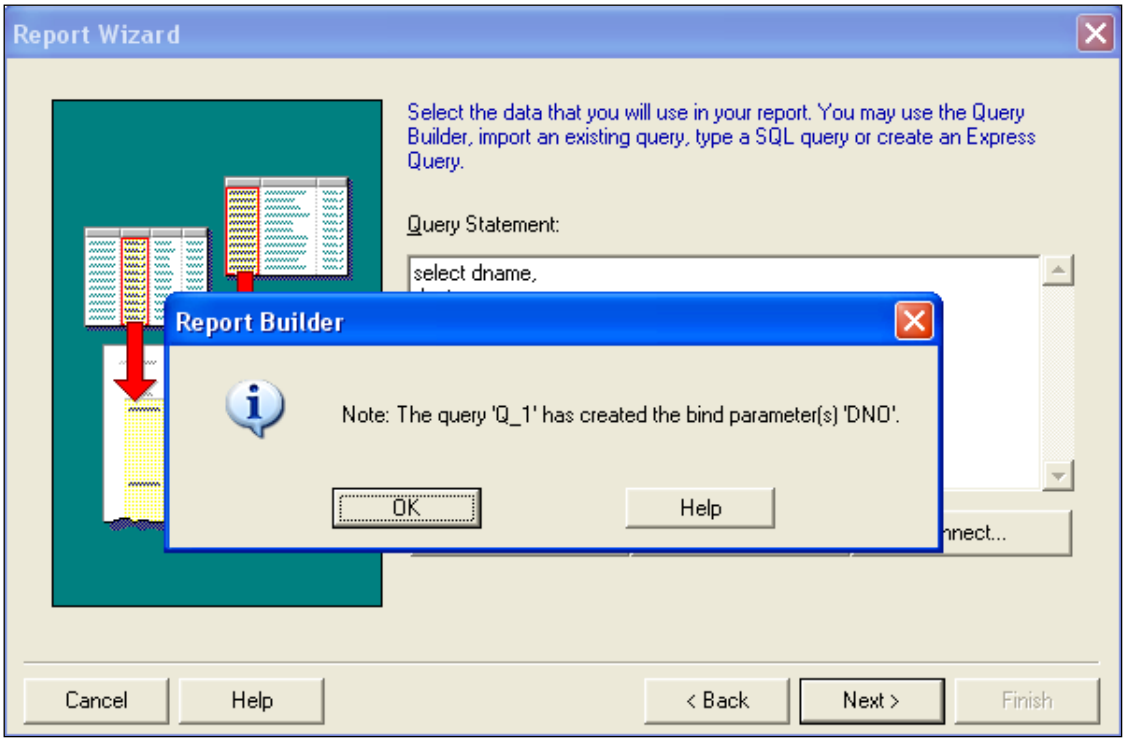

Figure 22: Bind Variable Indication Dialog Box

Follow **Steps 7 to 13** from **LAB 1.**

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Step 14: Enter the value for the bind parameter.

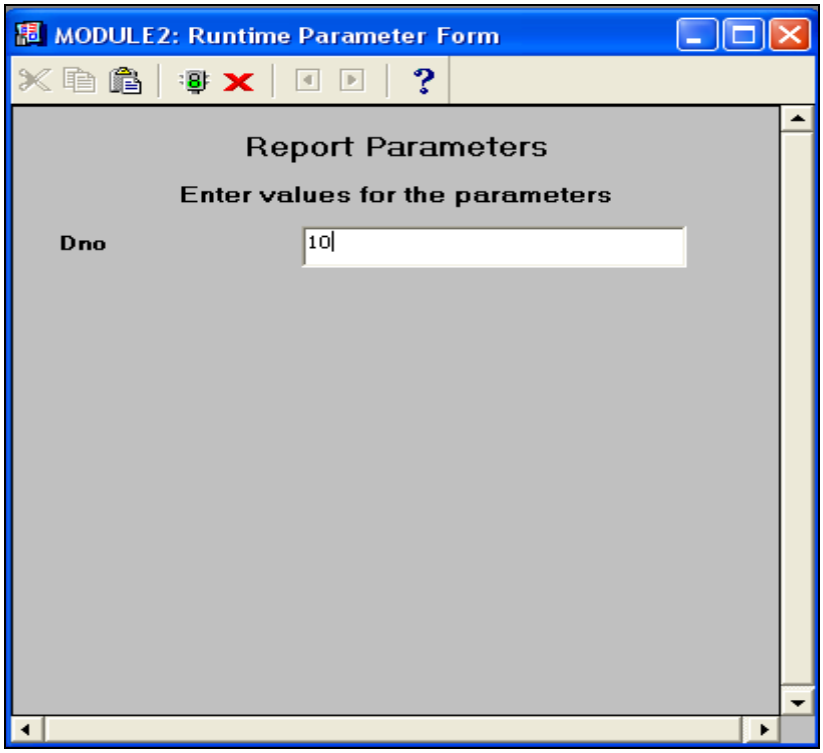

Figure 23: Parameter Box

Step 14: To create LOVs for bind variable.

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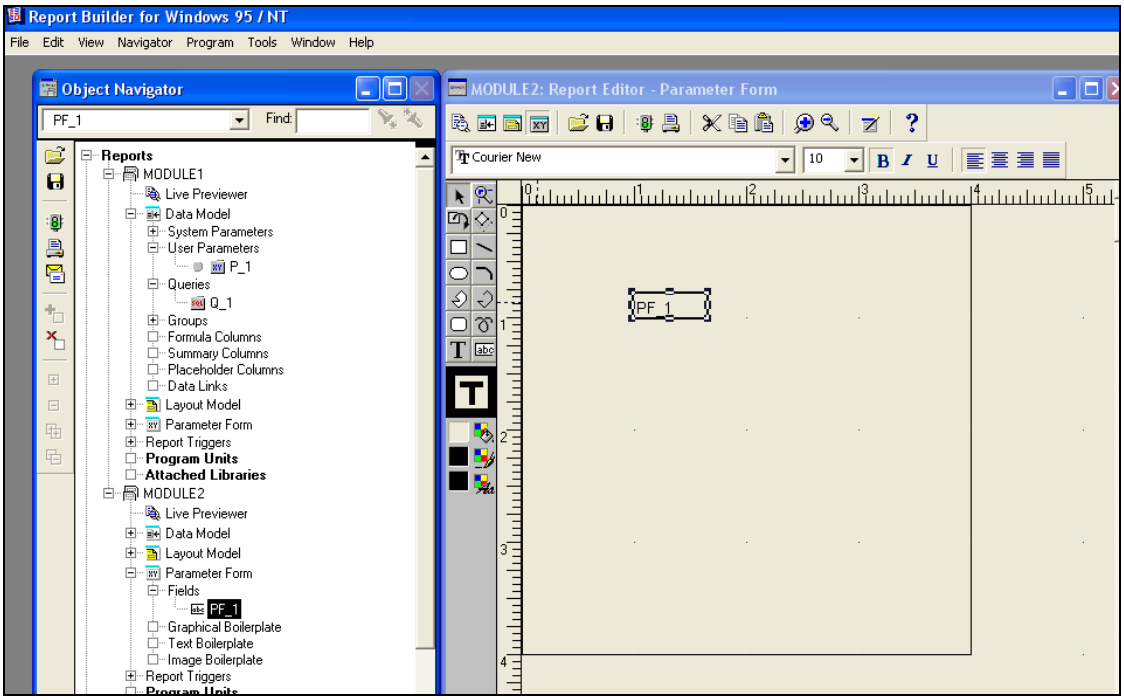

Figure 24: Parameter Window 1

Step 15:

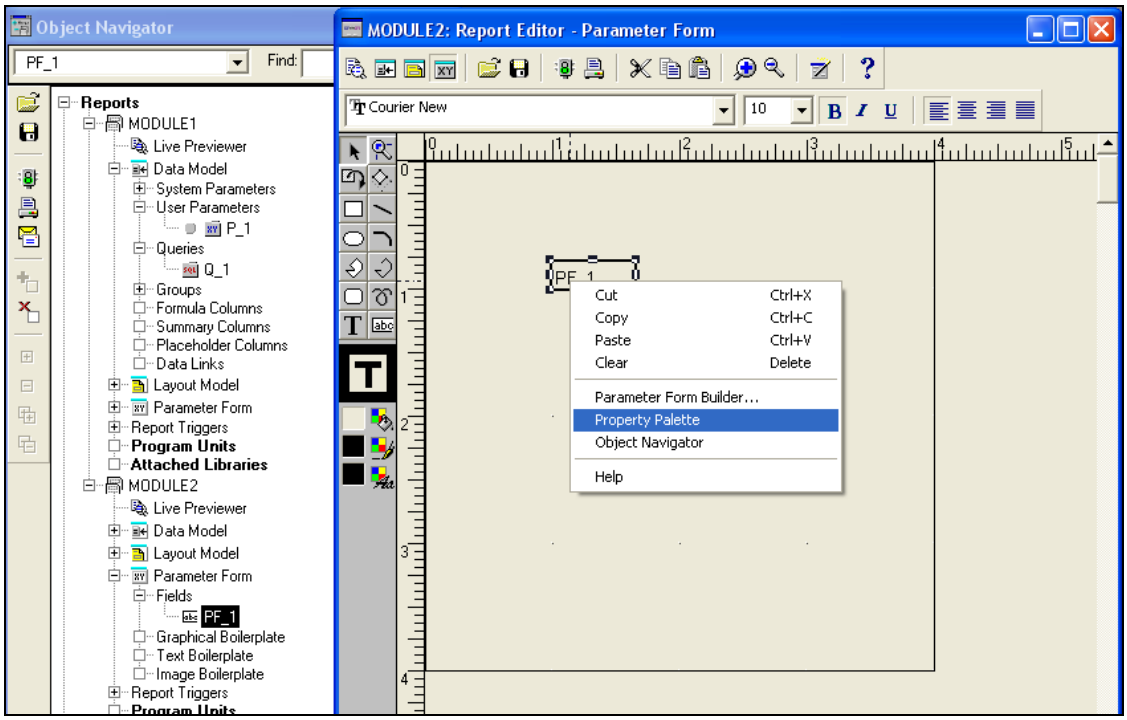

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Figure 25: Parameter Window 2

Step 16:

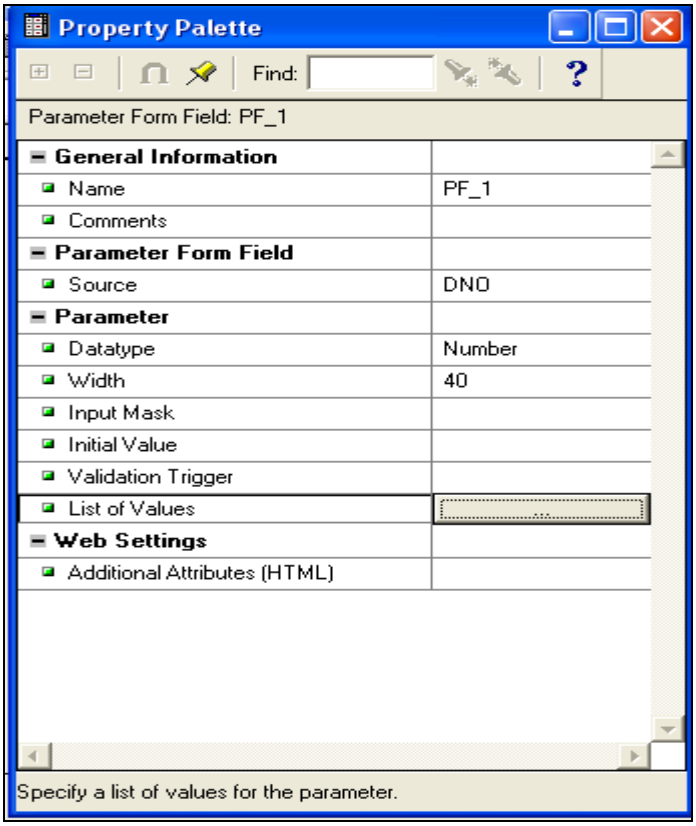

Figure 26: Property Palette

Step 17: Add values which are to be displayed in LOV list.

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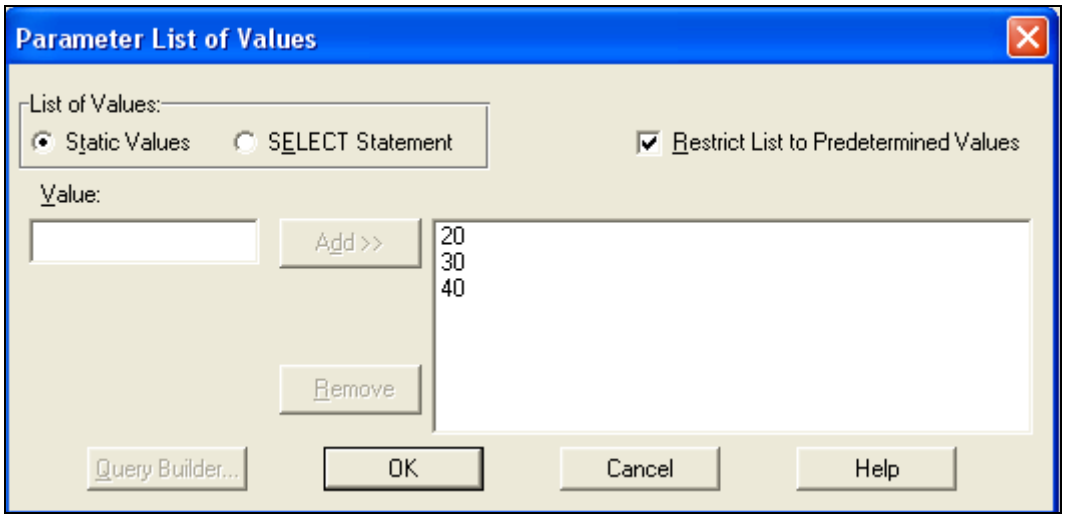

Figure 27: Adding LOVs

Step 18: The LOV getting displayed.

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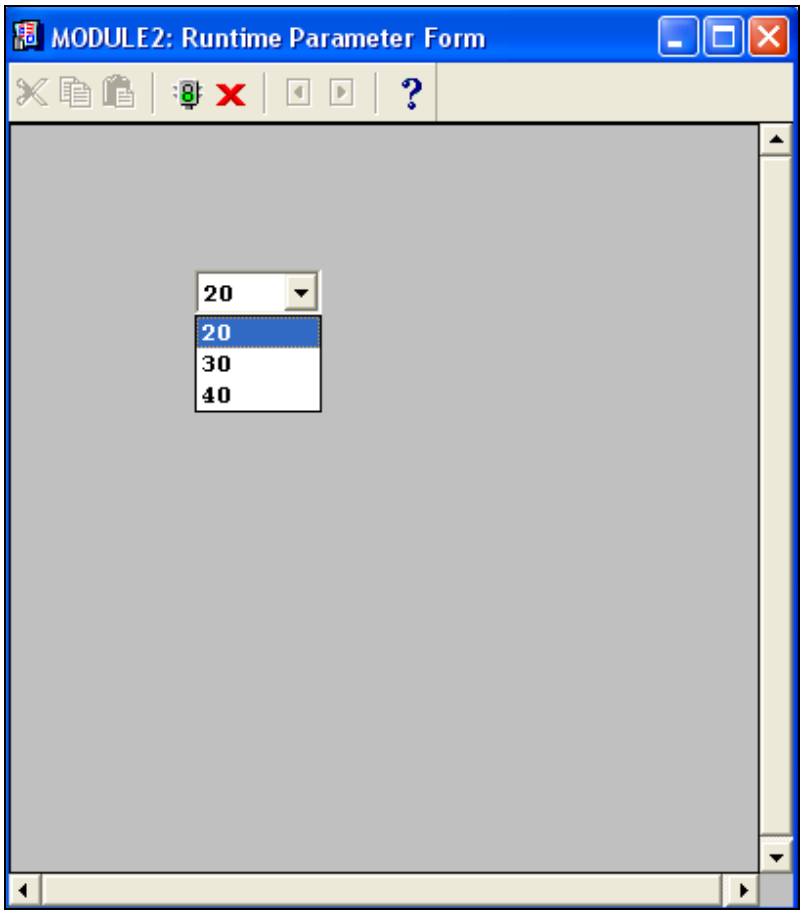

Figure 28: Parameter Window with LOV

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Step 19: Output displayed after selecting a value from the LOV.

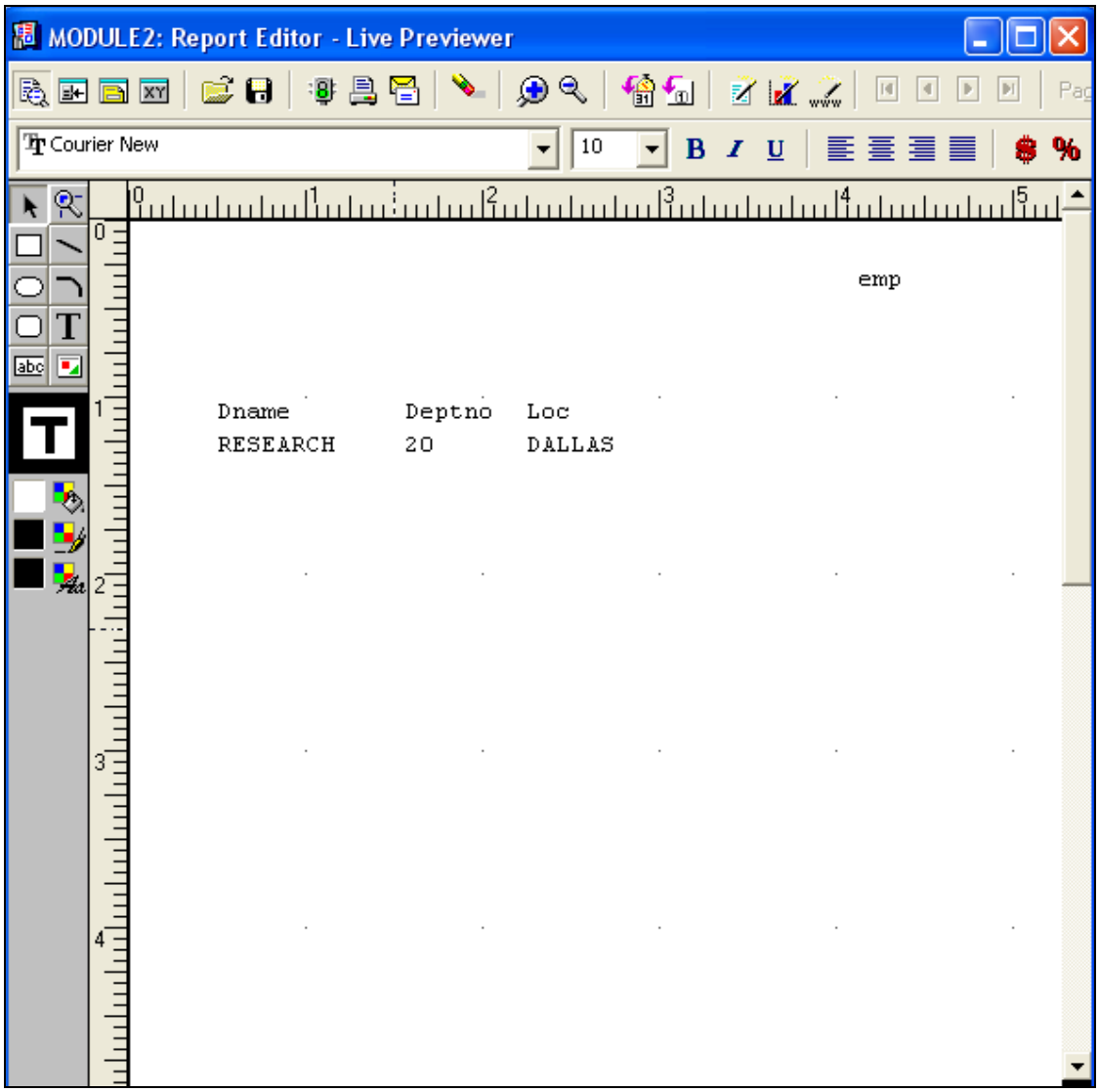

Figure 29: Output Window

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3.2: Lexical parameter
Solution:

Follow **Steps 1 to 5** from **LAB 1.**

Step 6: Enter the query.

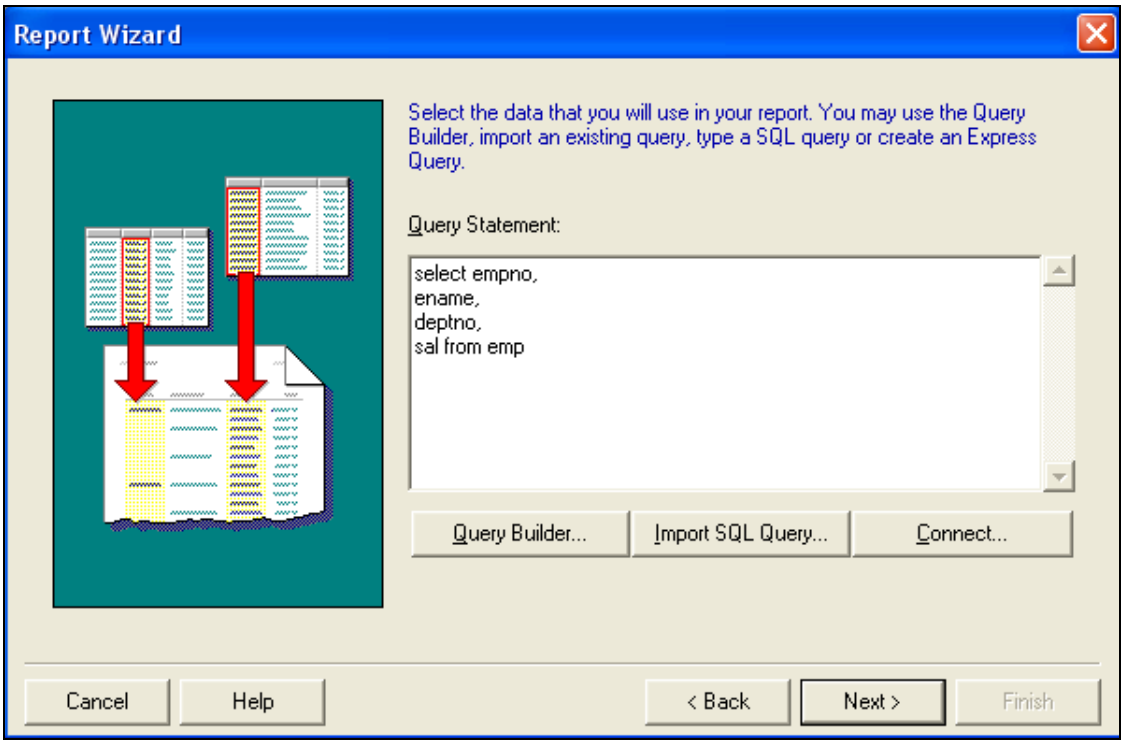

Figure 30: Query Page

Follow **Steps 7 to 13** from **LAB 1.**

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Step 14: Create a user parameter with an initial value.

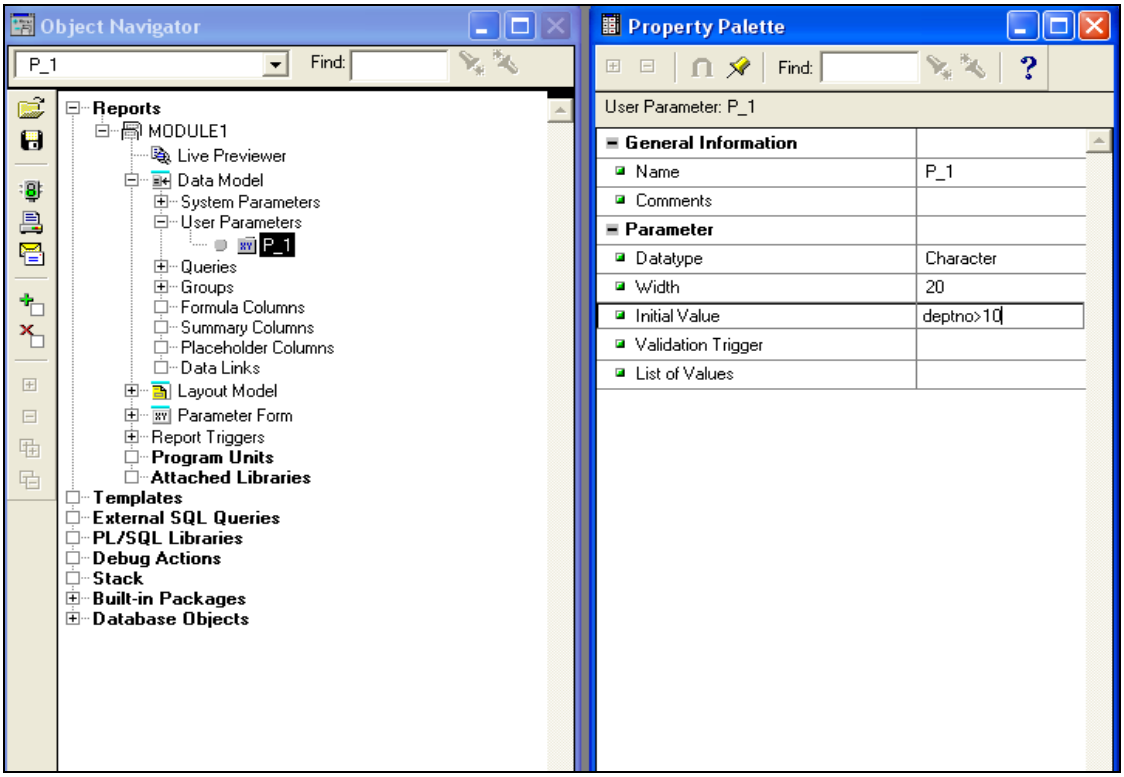

Figure 31: User Parameters Page

Step 15: Add the created parameter as lexical parameter in the query.

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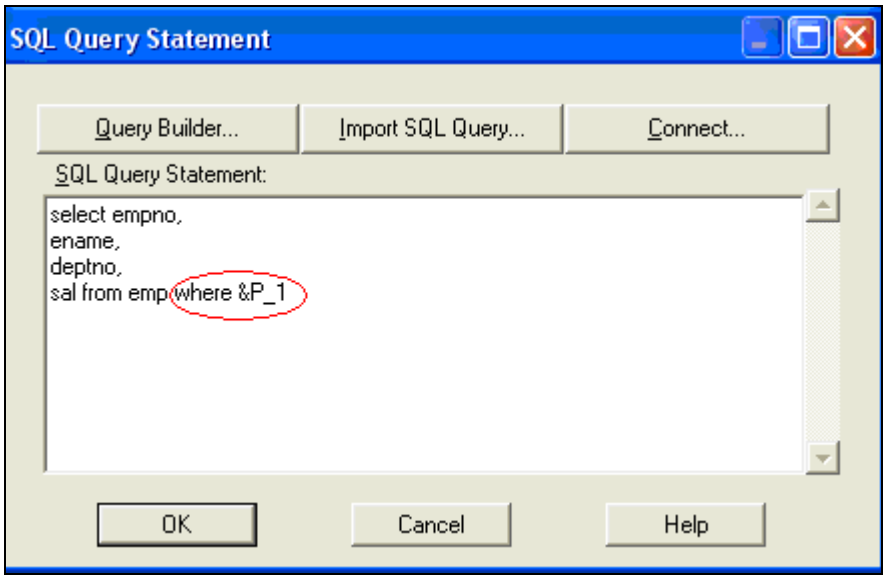

Figure 32: Query Page 3

Step 16: Parameter window which appears at the time of execution.

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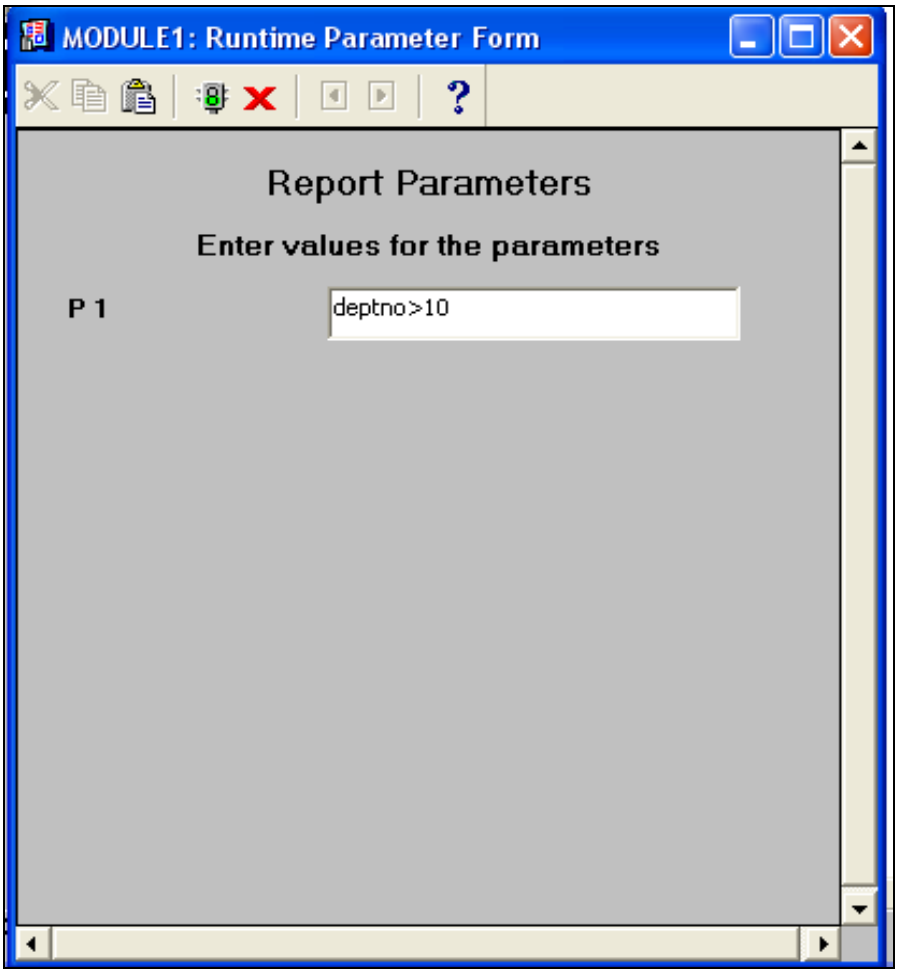

Figure 33: Parameter Window

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Step 14: Executed output.

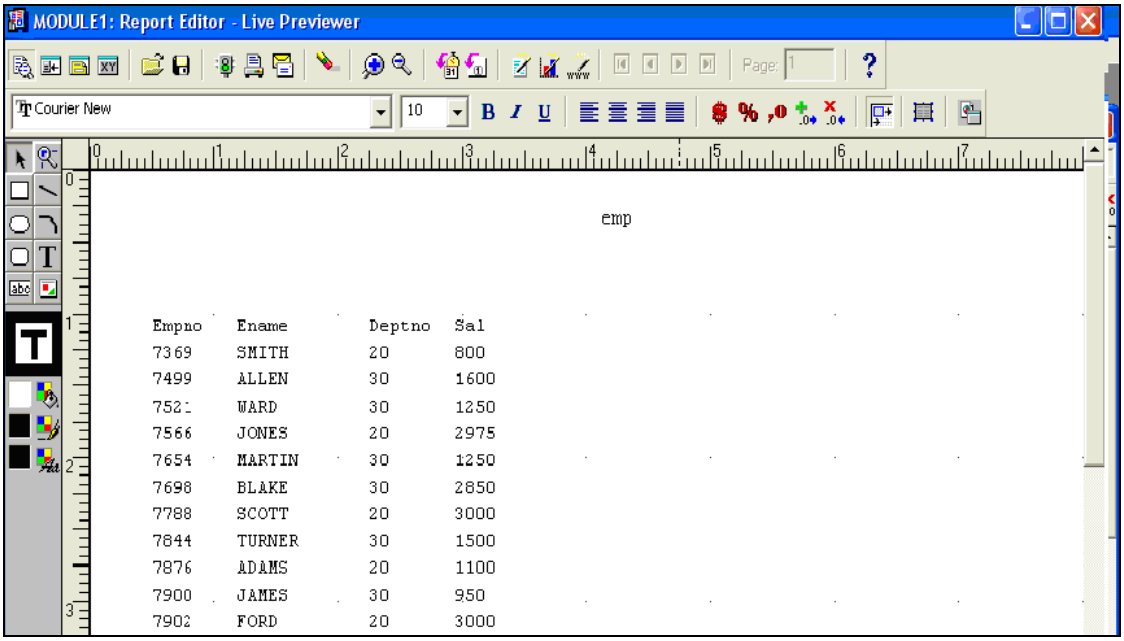

Figure 34: Output Page

3.3. Manually create a report using Lexical parameter, displaying the employees who earn more than Rs.3000 (**To Do**).

3.4. Manually create a report which displays employee details on selecting the employee number. Use Bind variable and LOVs which displays all the employee number (**To Do**)**.**

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Lab 4. Formula and Summary

Goals	• To create a report by using the Formula Column • To create a report by using the Summary Column
Time	

4.1: Formula

Step 1: Choose the option to manually create the report.

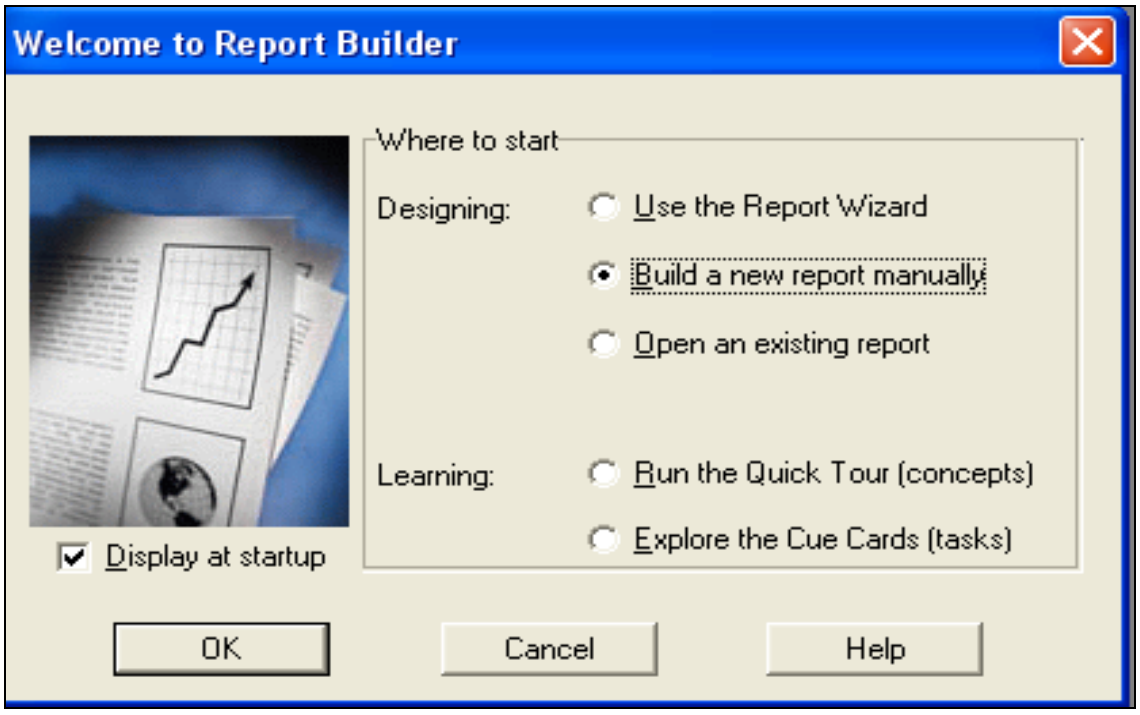

Figure 35: Welcome window

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Step 2: Open the data model window by clicking the data model icon or view -> data model from the menu bar. Then click the SQL query tool from the tool bar to type the query statement.

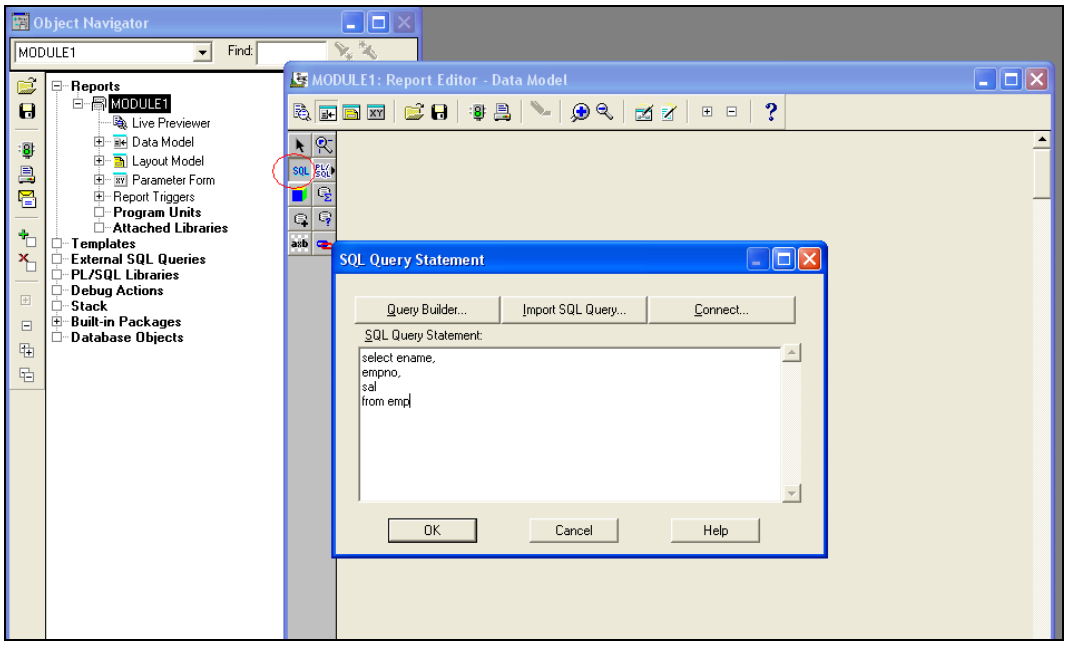

Figure 36: SQL query window within data model window

Step 3: Include a formula column (to do calculation) in the data model window by clicking the formula column tool.

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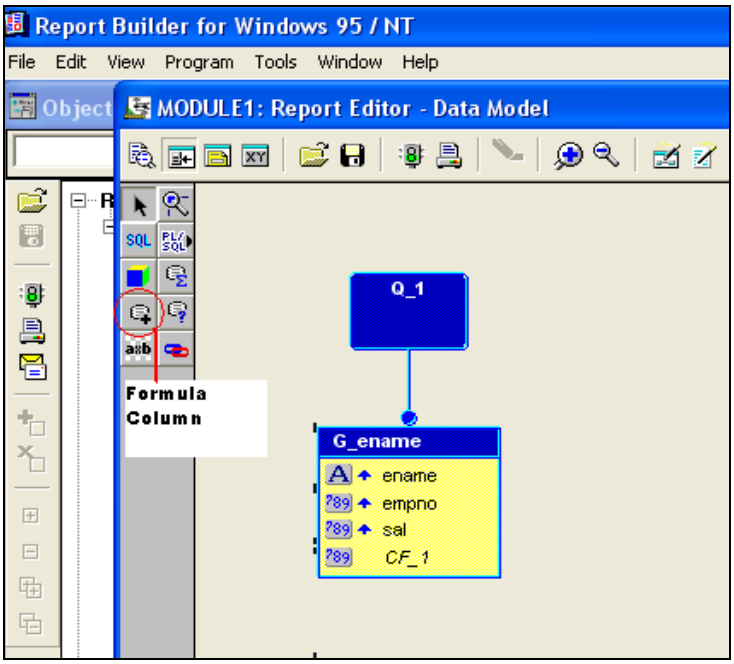

Figure 37: Data model window after connecting to database

Step 4: Include the formula which is to be calculated in the PL/SQL Formula block from the property palette of formula column.

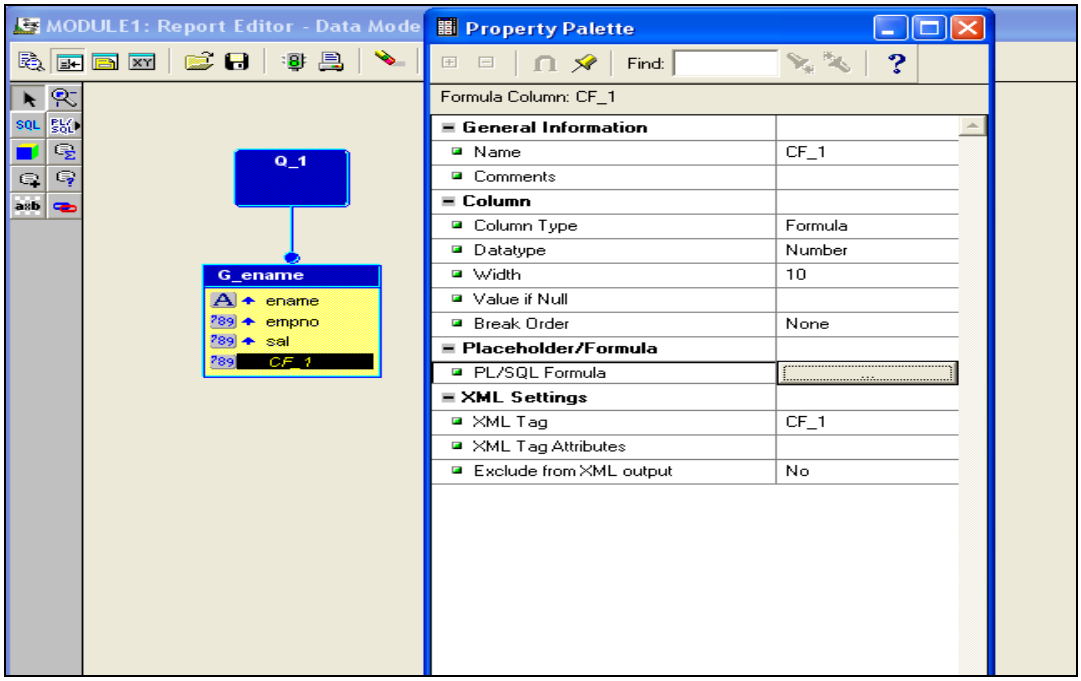

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Figure 38: Property palette of formula column

Step 5: Write the function to be calculated in the formula column.

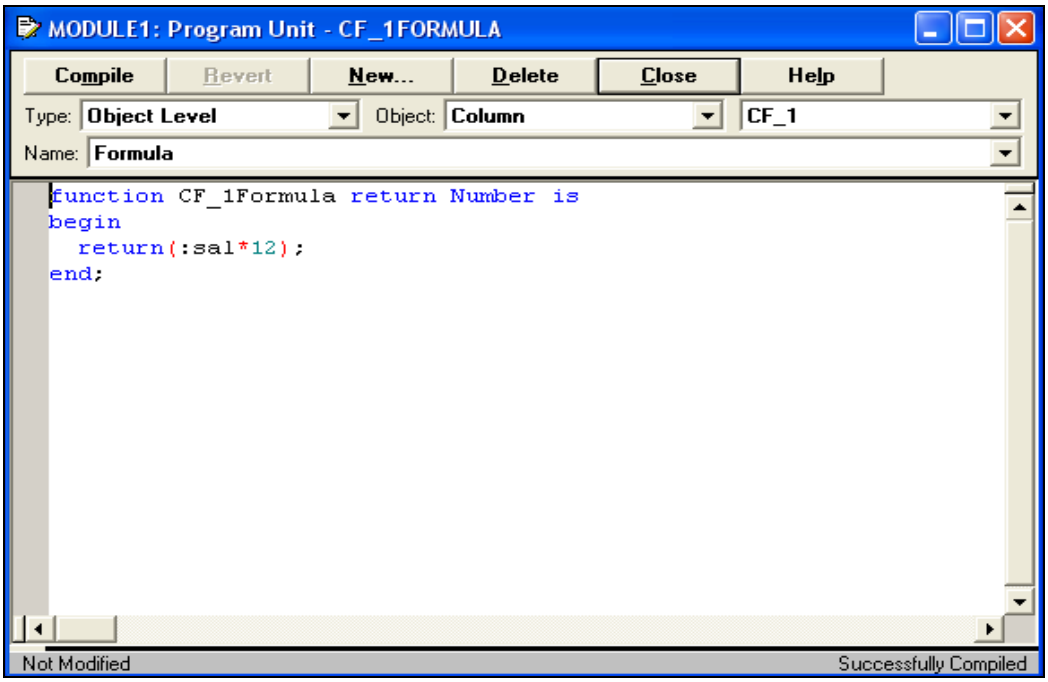

Figure 39: Function window

The function written for calculating annual income of each employee.

```
function CF_1Formula return Number is
begin
 return(:sal*12);
end;
```

Step 6: Open the layout model window by clicking the layout model icon or view -> layout model from the menu bar. Then design the report with the help of the tools present in the tool bar.

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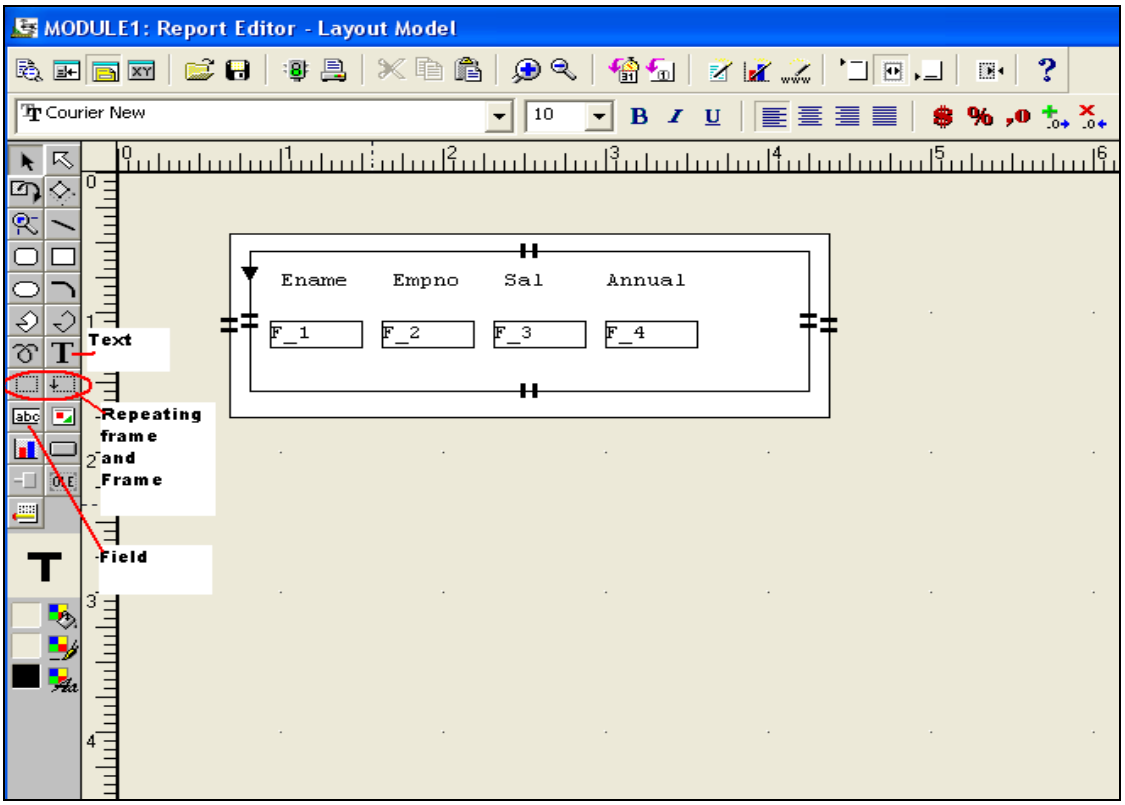

Figure 40: Layout model window with a report design

Step 7: Set the property of each item in the layout model using its respective property palette.

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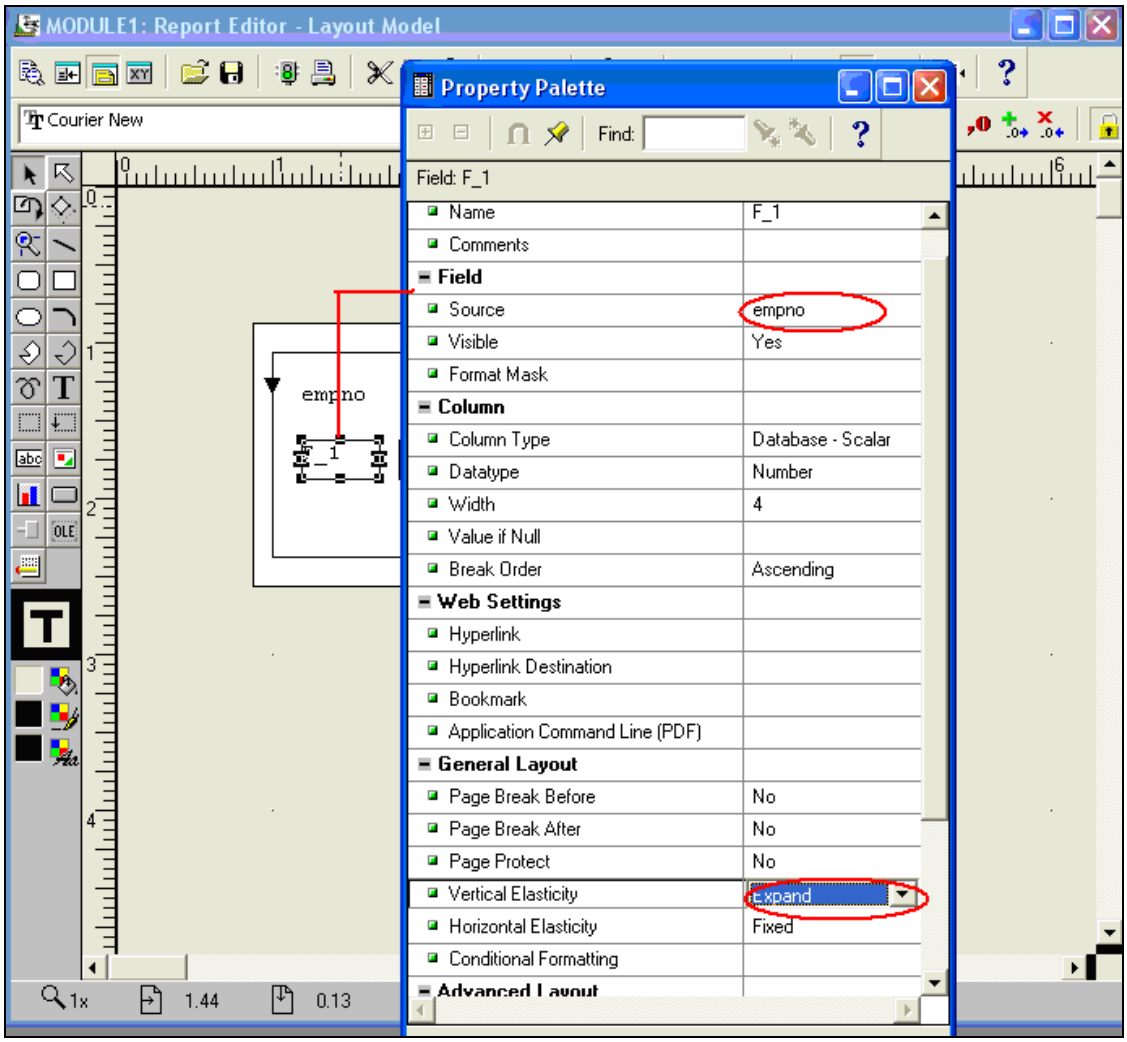

Figure 41: Property palette of a text box

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Step 8: Execute the report to view the output.

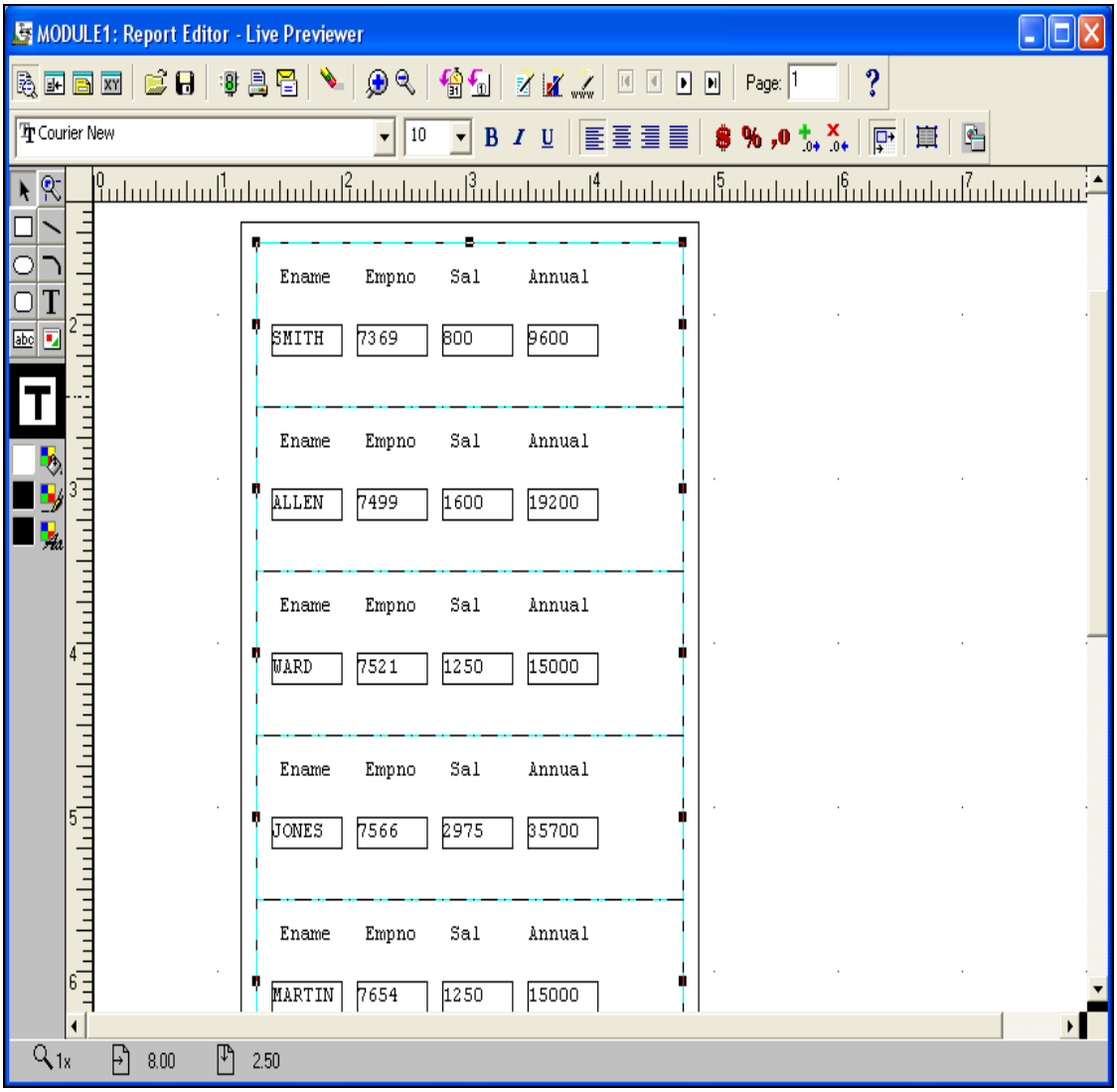

Figure 42: Output window

4.2. Manually create a report to display the employee name, employee number, salary, commission and the total salary (salary + commission) for each employee. Also display the grand total of the employee's salary and total salary respectively (**To Do**).

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Lab 5. Triggers

Goals	• To create a report using Triggers • To demonstrate the use of SRW packages
Time	

5.1: Report with after parameter form trigger:

Solution:

Follow **Steps 1 to 5** from **LAB 1.**

Step 6: Enter the query to be executed.

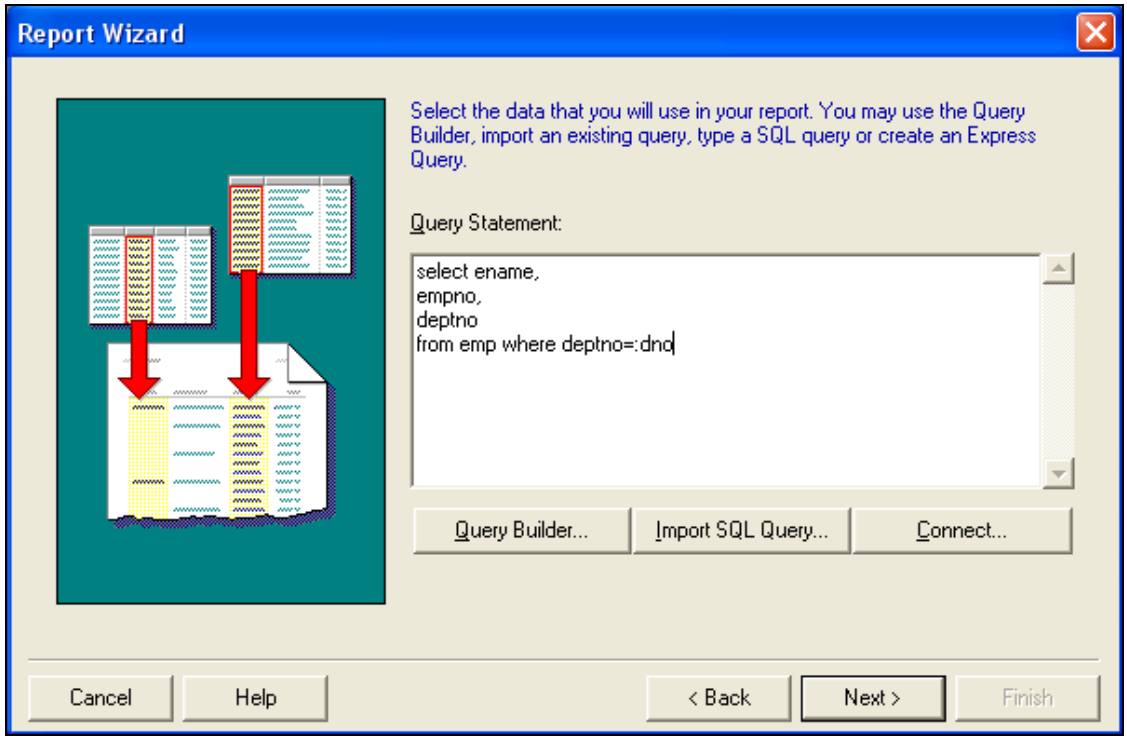

Figure 43: Query Page

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Message displayed, confirming the creation of bind variable.

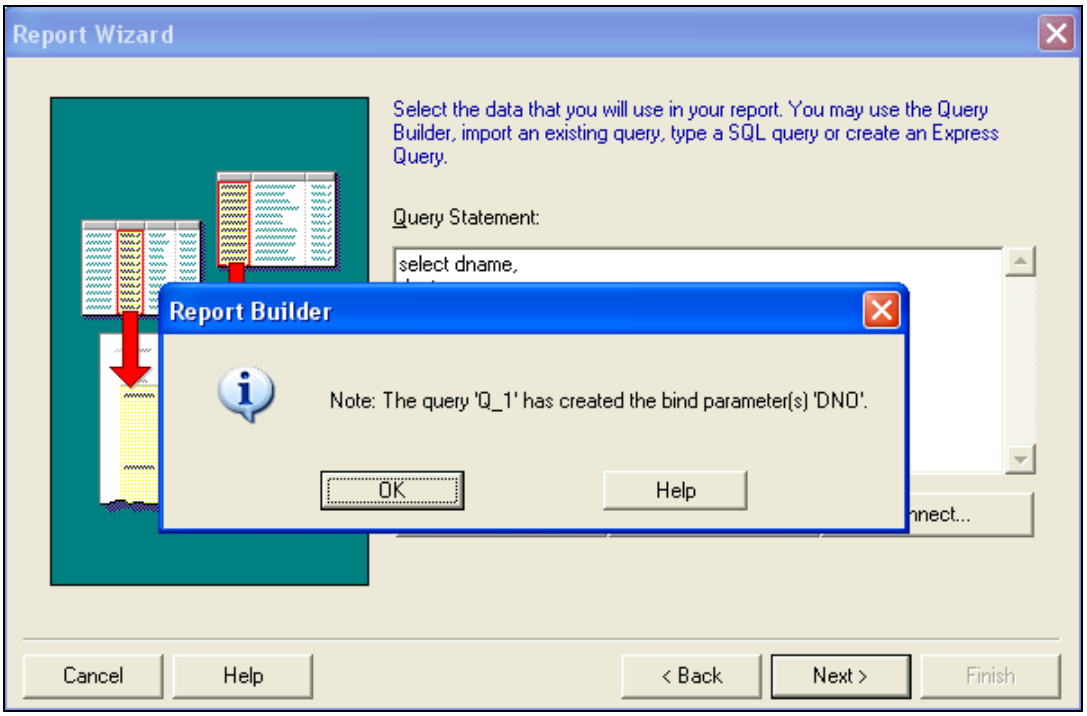

Figure 44: Bind Variable Indication Dialog Box

Follow **Steps 7 to 13** from **LAB 1.**

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Step 14: Create an AFTER PARAMETER FORM trigger.

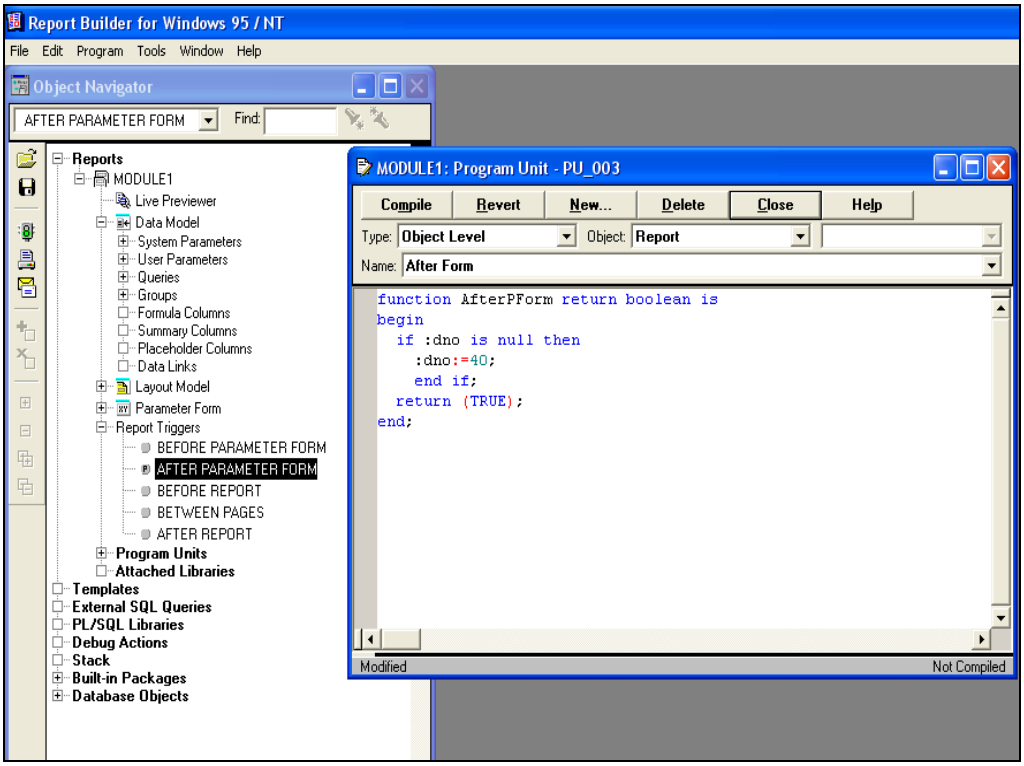

Figure 45: After Parameter Form Trigger Page

Trigger Code:

```
function AfterPForm return boolean is
begin
  if :dno is null then
          :dno:=40;
          end if;
  return (TRUE);
end;
```

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Step 15: Parameter window at the time of execution.

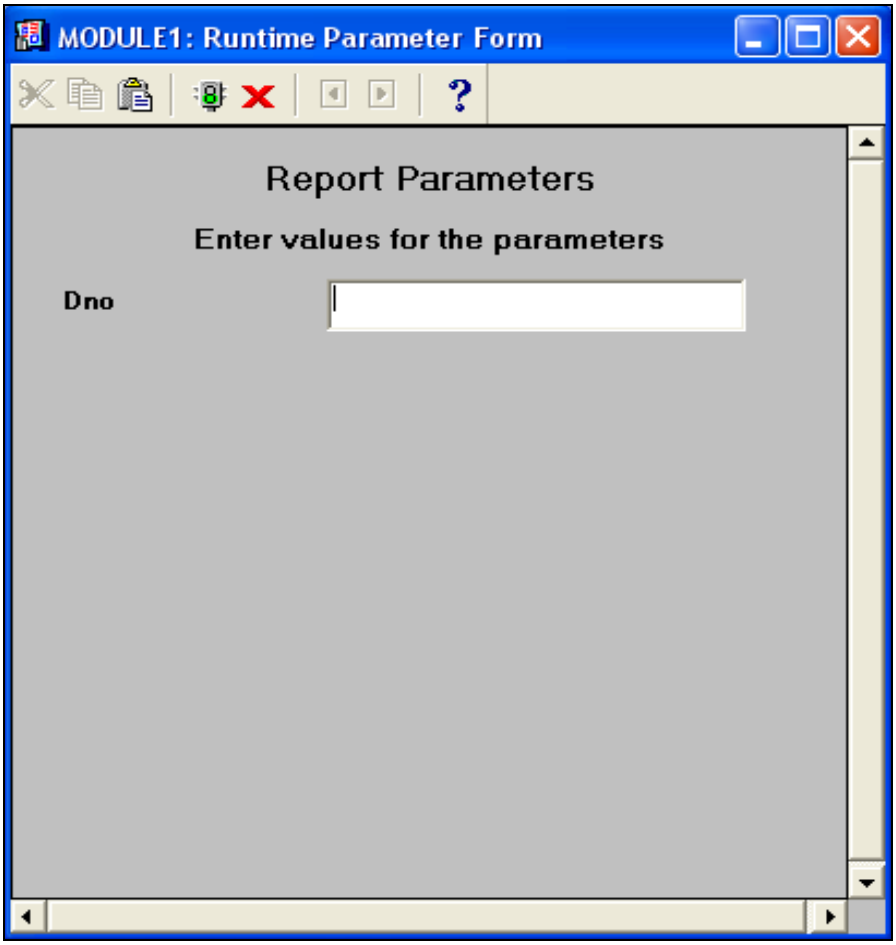

Figure 46: Parameter window

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Step 16: Parameter window at the time of execution.

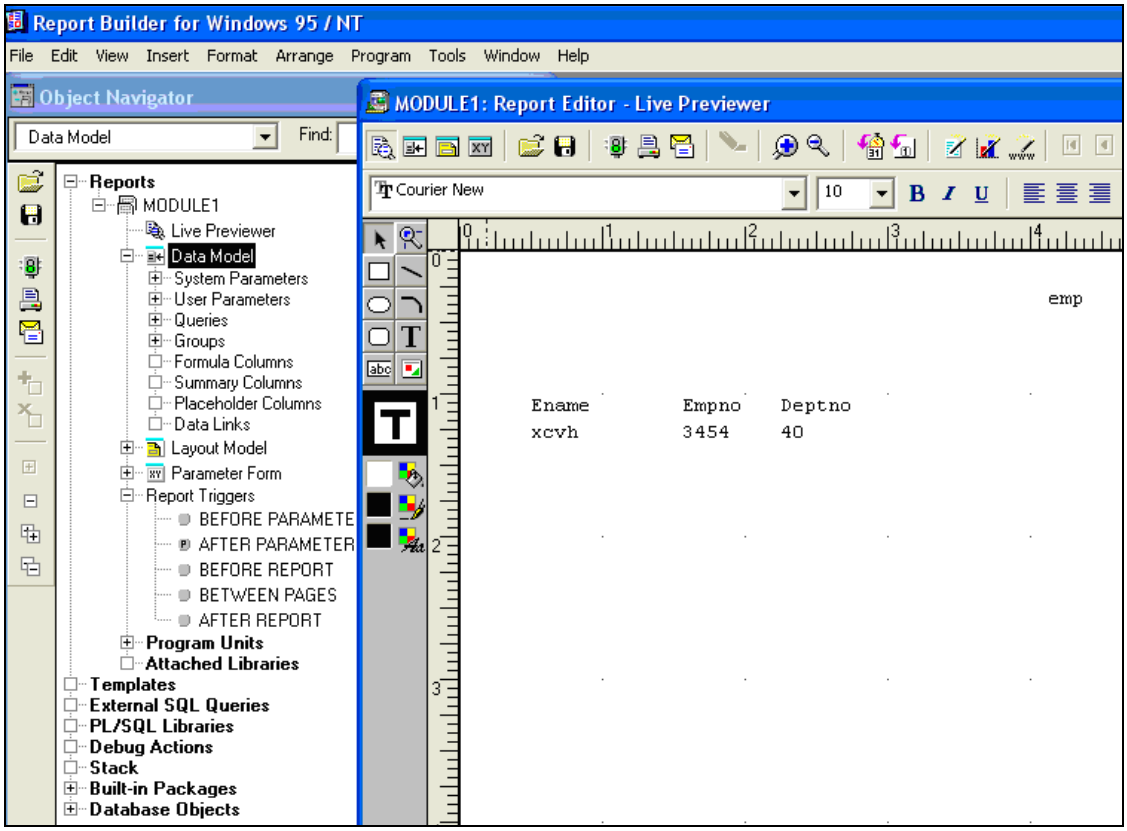

Figure 47: Output Page

5.2. Demonstrating SRW package:

Step 17: Write the SRW package in the format trigger from the property palette.

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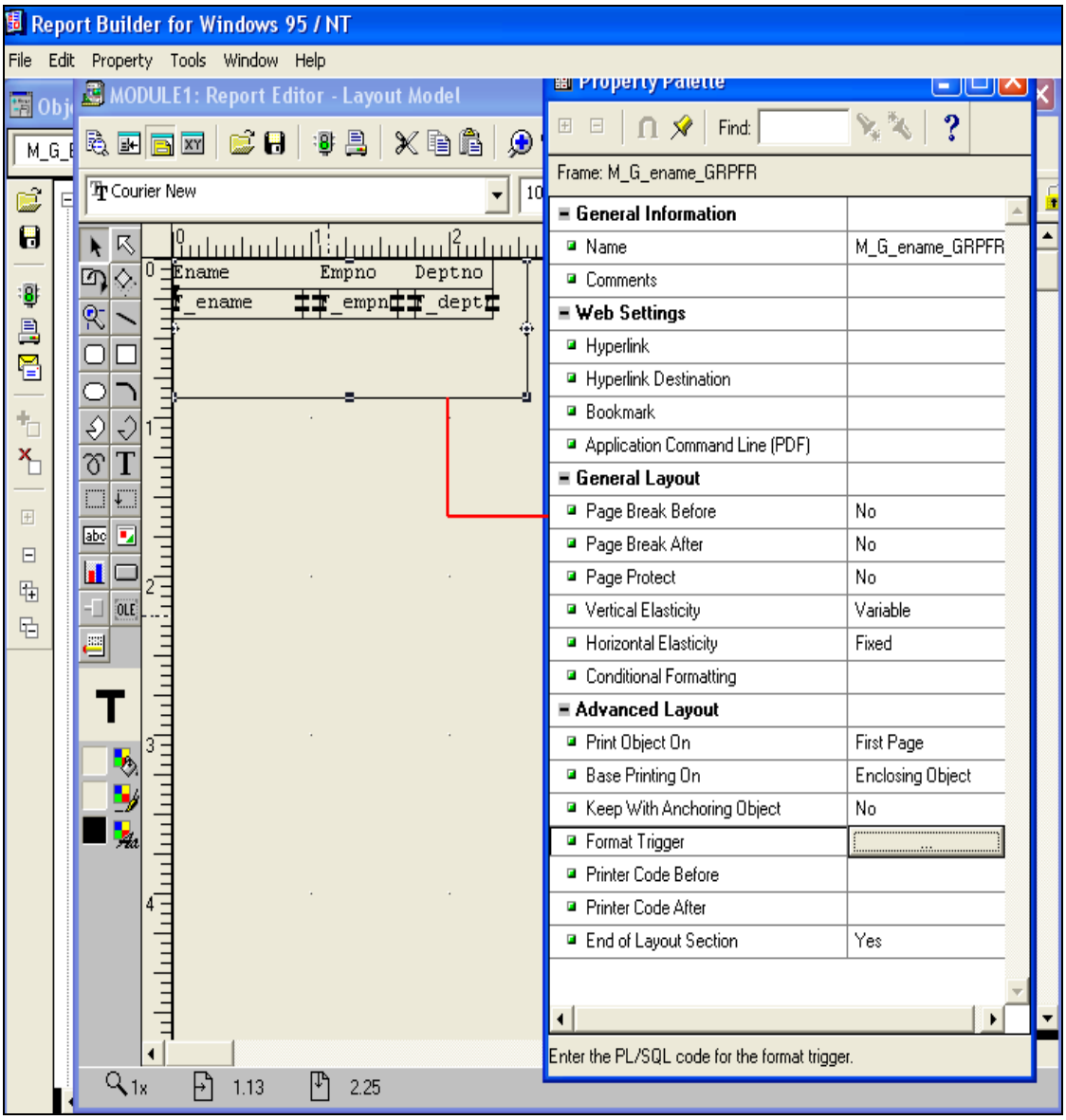

Figure 48: Property Palette Page

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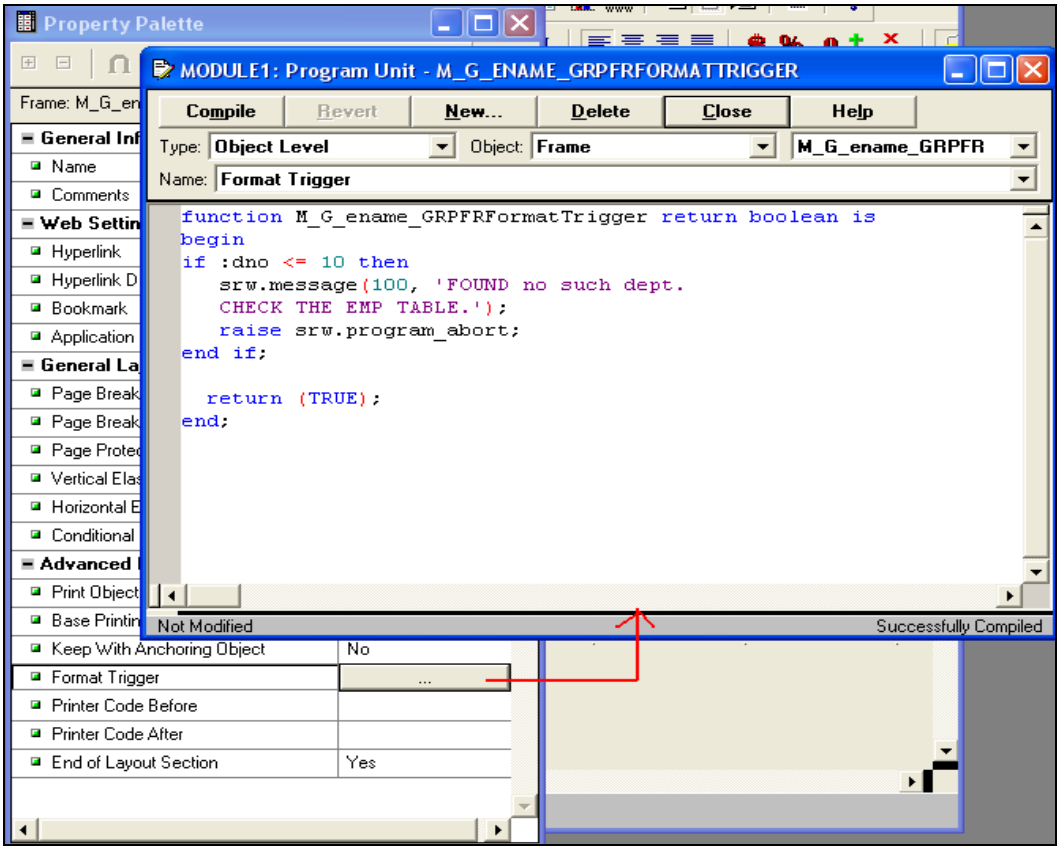

Figure 49: Format Trigger Page

SRW Code:

```
function M_G_ename_GRPFRFormatTrigger return boolean is
begin
if :dno <= 10 then
  srw.message(100, 'FOUND no such dept.
  CHECK THE EMP TABLE.');
  raise srw.program_abort;
end if;

 return (TRUE);
end;
```

Step 18: Parameter window at the time of execution.

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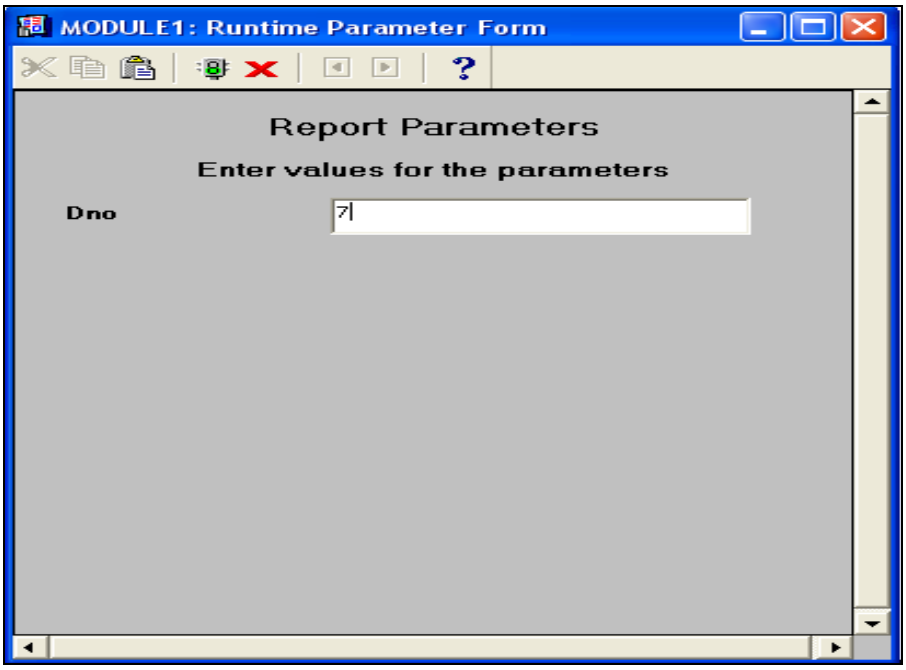

Figure 50: Parameter Window

Figure 51: Error displayed when dept no is entered less than 10

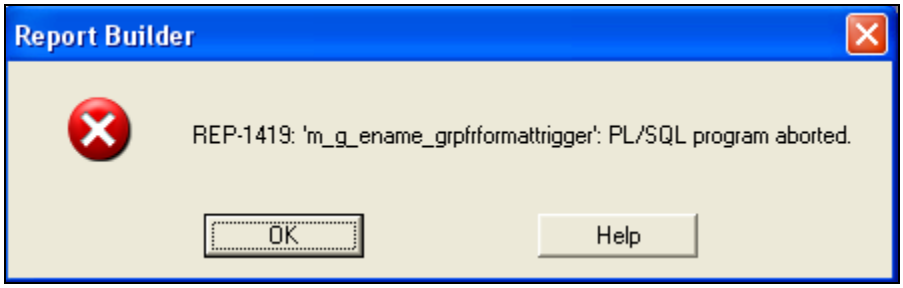

Figure 52: Abort message displayed

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5.3. Create a report manually to display a department wise sum of salary along with commission, with the message displaying “This is the report displaying sum of sal and comm department wise”. And also intimating the abort message after termination of the report.

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