

XML Publisher

Lab Book

Document Revision History

Date	Revision No.	Author	Summary of Changes
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Getting Started

Overview

This lab book is a guided tour for learning XML Publisher basics. 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 III or higher
- Microsoft Windows 95, 98, or NT 4.0, 2k, XP, Windows 7
- Memory: 512 MB of RAM (1 GB or more recommended)
- Internet Explorer 6.0 or higher
- Forms and Reports 6i or Higher
- Putty
- Filezilla
- PLSQL Developer
- Oracle Client
- Workflow Builder
- BI Publisher Desktop
- Java 1.6.0_07
- jinitattor13118
- Access to Oracle application instance

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 XML Publisher>_assgn. For each lab exercise create a directory as lab <lab number>.

XML Publisher Basic

Introduction

Oracle XML Publisher is a template-based publishing solution delivered with the Oracle E-Business Suite. It provides a new approach to report design and publishing by integrating familiar desktop word processing tools with existing E-Business Suite data reporting. XML Publisher leverages standard, well-known technologies and tools, so you can rapidly develop and maintain custom report formats.

The flexibility of XML Publisher is a result of the separation of the presentation of the report from its data structure. The collection of the data is still handled by the E-Business Suite, but now you can design and control how the report outputs will be presented in separate template files. At runtime, XML Publisher merges your designed template files with the report data to create a variety of outputs to meet a variety of business needs, including:

- Customer-ready PDF documents, such as financial statements, marketing materials, contracts, invoices, and purchase orders utilizing colors, images, font styles, headers and footers, and many other formatting and design options.
- HTML output for optimum online viewing.
- Excel output to create a spreadsheet of your report data.
- "Filled-out" third-party provided PDF documents. You can download a PDF document, such as a government form, to use as a template for your report. At runtime, the data and template produce a "filled-out" form.

Flat text files to exchange with business partners for EDI and EFT transmission.

The following graphic displays a few sample documents generated by XML Publisher.

Process Overview

Creating customized reports using XML Publisher can be divided into two phases:
Design Time and Runtime.

Design Time

1. Register the E-Business Suite report as a Data Definition in the Template Manager. Create a Data Definition in the Template Manager for E-Business Suite reports that you wish to customize using XML Publisher.

2. Design your template.

Your template files can be either in Rich Text Format (RTF) or Portable Document Format (PDF). RTF is a specification used by many word processing applications, such as Microsoft Word. You design the template using your desktop word processing application and save the file as an RTF file type (.rtf extension).

Insert basic markup tags to the document to prepare it for merging with the XML data. XML Publisher

Recognizes the formatting features that you apply and converts them to XSL-FO. Use Adobe Acrobat to apply markup tags to your custom-designed or downloaded PDF template.

3. Register your Template in the Template Manager. When you create the template in the Template Manager, you register and upload your RTF or PDF template files. The Template must be assigned to the Data Definition Code of the E-Business Suite report with which it will be merged.

4. Add desired translations of your RTF template. XML Publisher's translation utility allows you to extract the translatable strings from your template into an XLIFF file. Translate the strings in this file and re upload to the Template Manager to make the translation available at runtime.

1-4 Oracle XML Publisher Report Designer's Guide.

Runtime

1. Set the concurrent program to generate XML.

2. Run the concurrent program using standard request submission.

- If you are using the HTML-based Schedule Request interface, select the template and output format from the **Layout** page of the process train.

XML Publisher Concept

XML Publisher breaks the three components apart and treats them separately at design time and at runtime the three are brought back together by XML Publisher to generate the final formatted, translated output.

There is an immediate gain in that this model is far more flexible i.e. a single data definition can support multiple layouts, multiple translations can be applied at runtime to generate translated output. This leads to a reduction in maintenance costs for all concerned.

Separate data / layout / UI translation



Data Logic: Data extracted from the database and converted into a XML string.

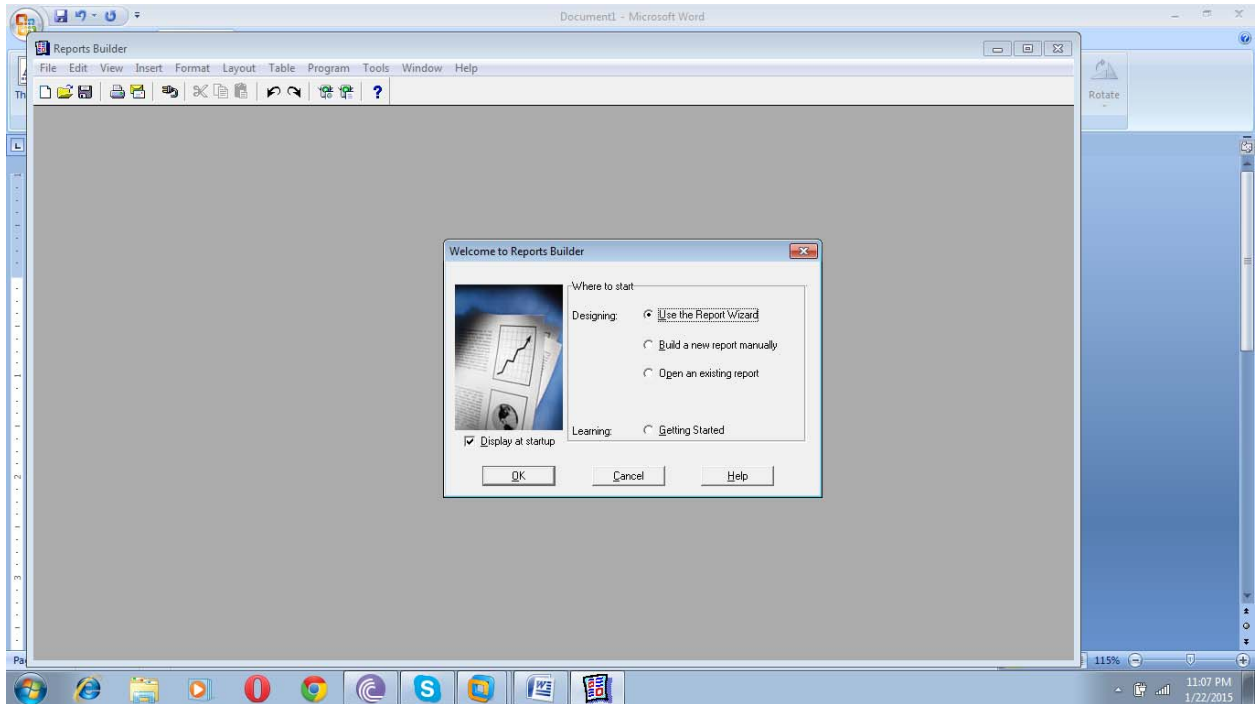
Layout: The layout templates to be used for final output are stored and managed in the Template manager.

Translation: The translation handler will manage the translation that is required at run time.

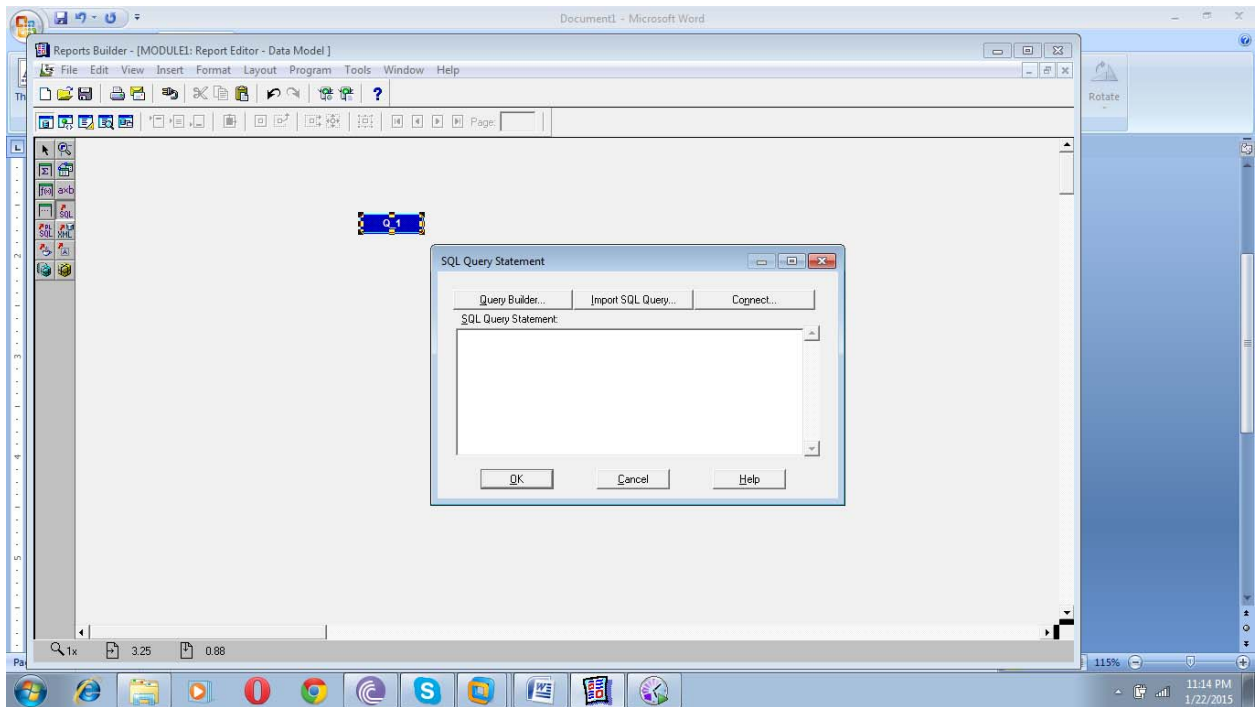
Lab1: Creating a xml publisher report by using rdf report

Creating a RDF report:

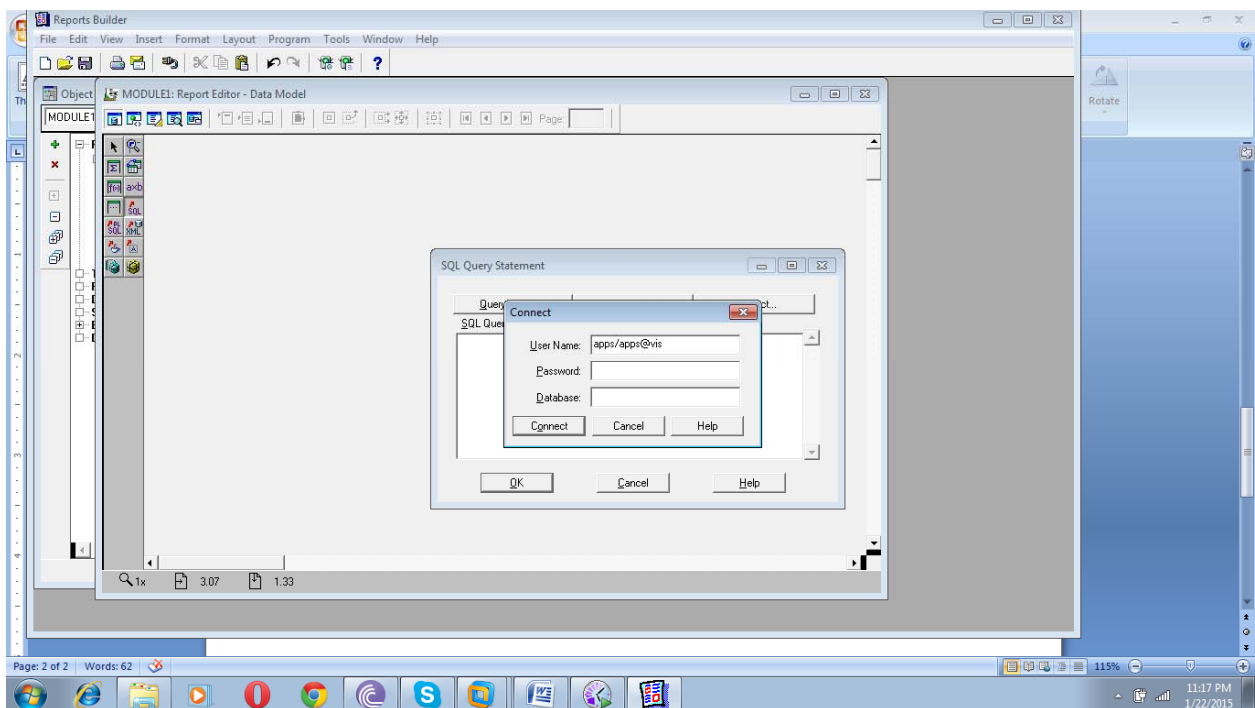
Login to Report Builder tool and select the button build a new report manually.



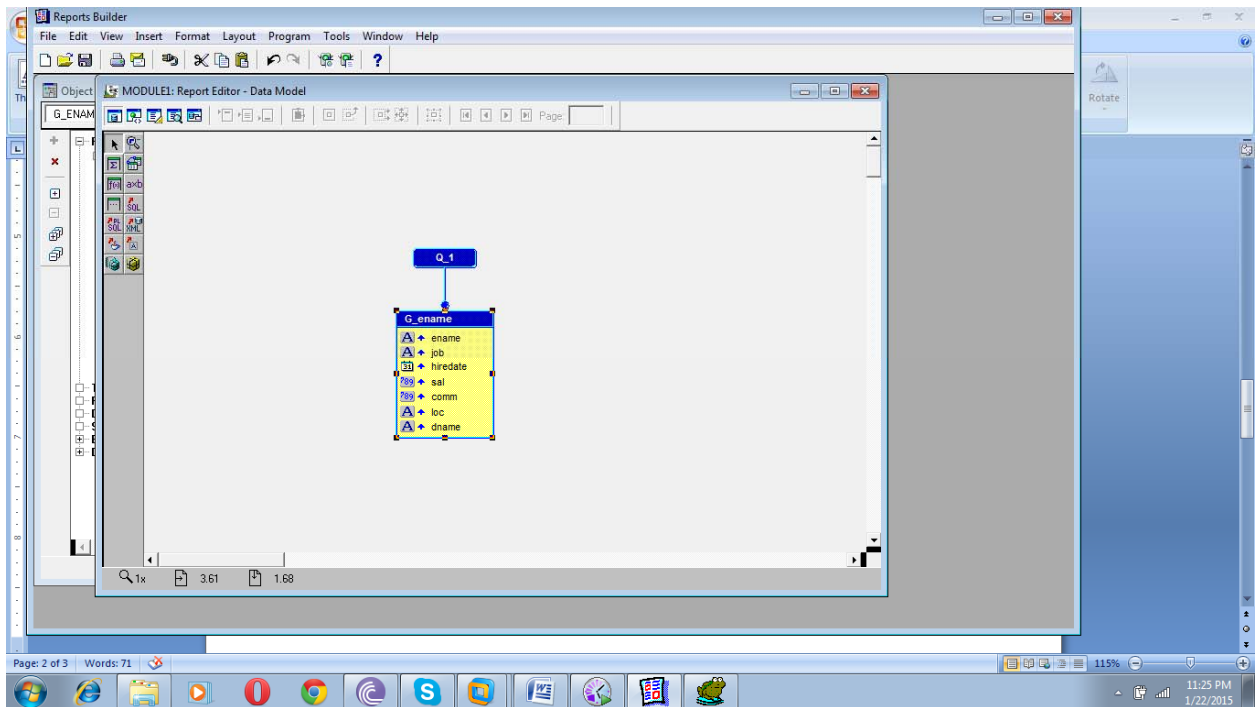
- Now you can see the Module1: Report-editor Data Model. You have to select sql box for write a query to meet the requirement.



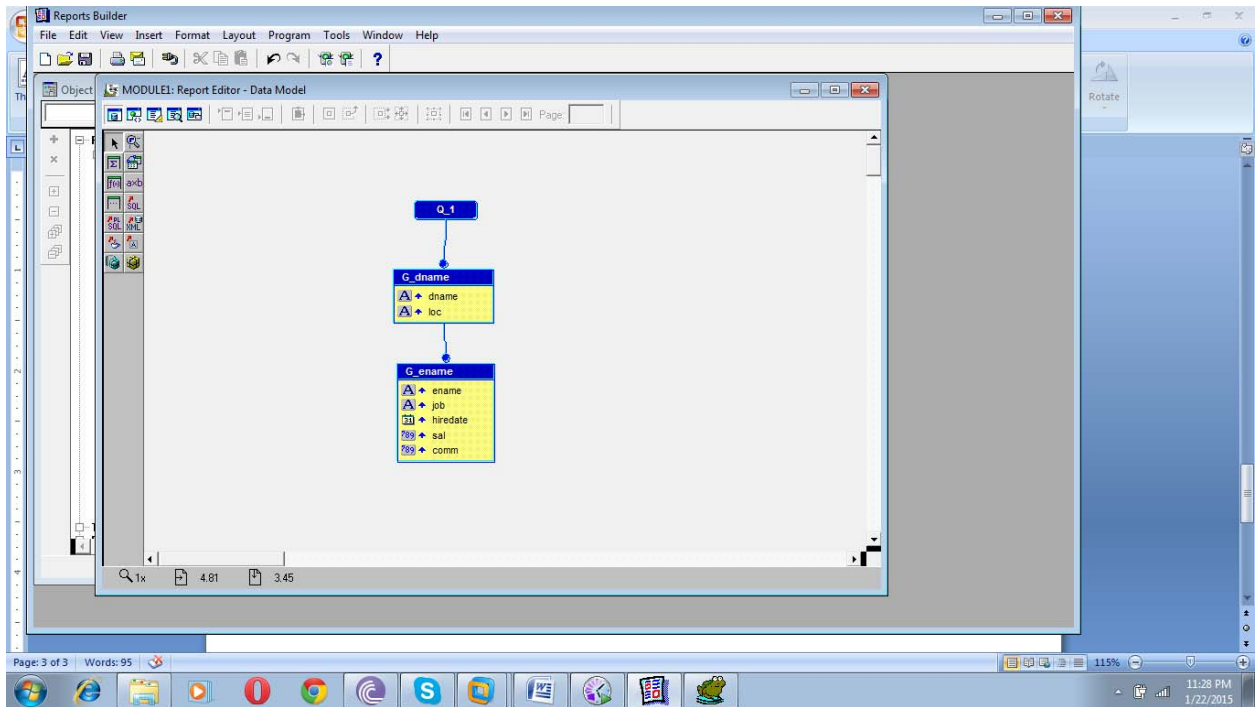
- Now you have select connection button for connection of the database.



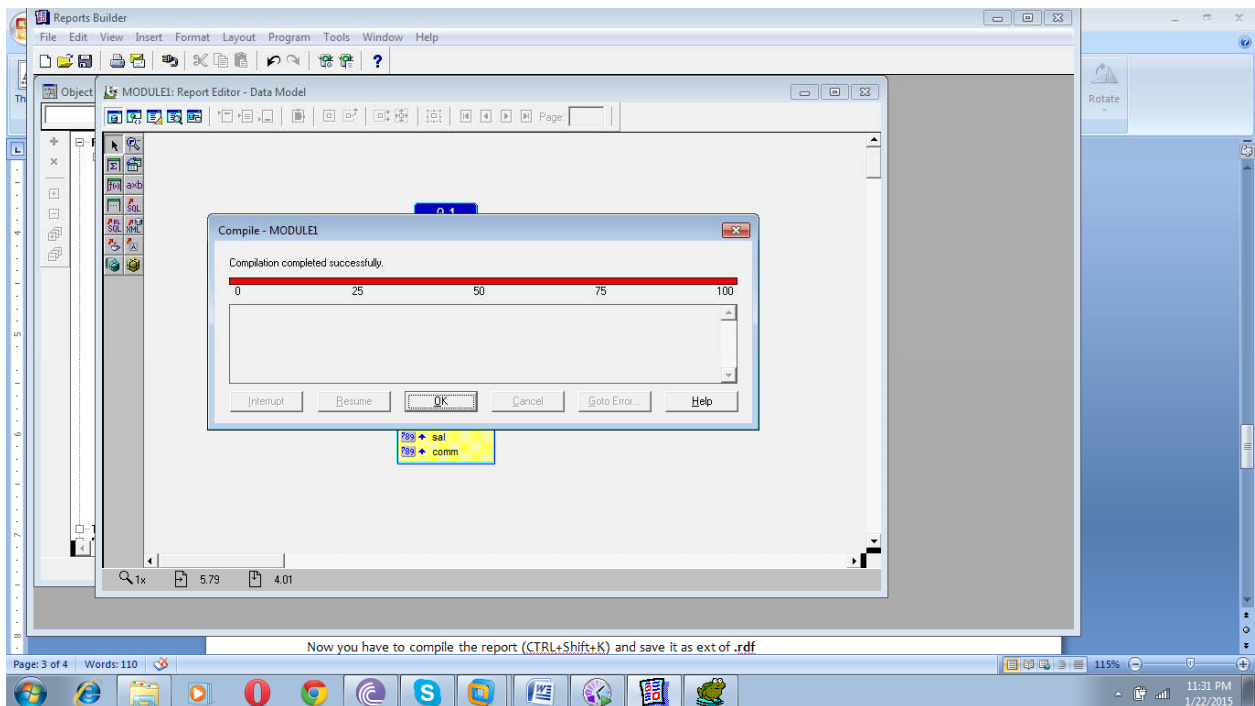
- Then write the query to reach the requirement.



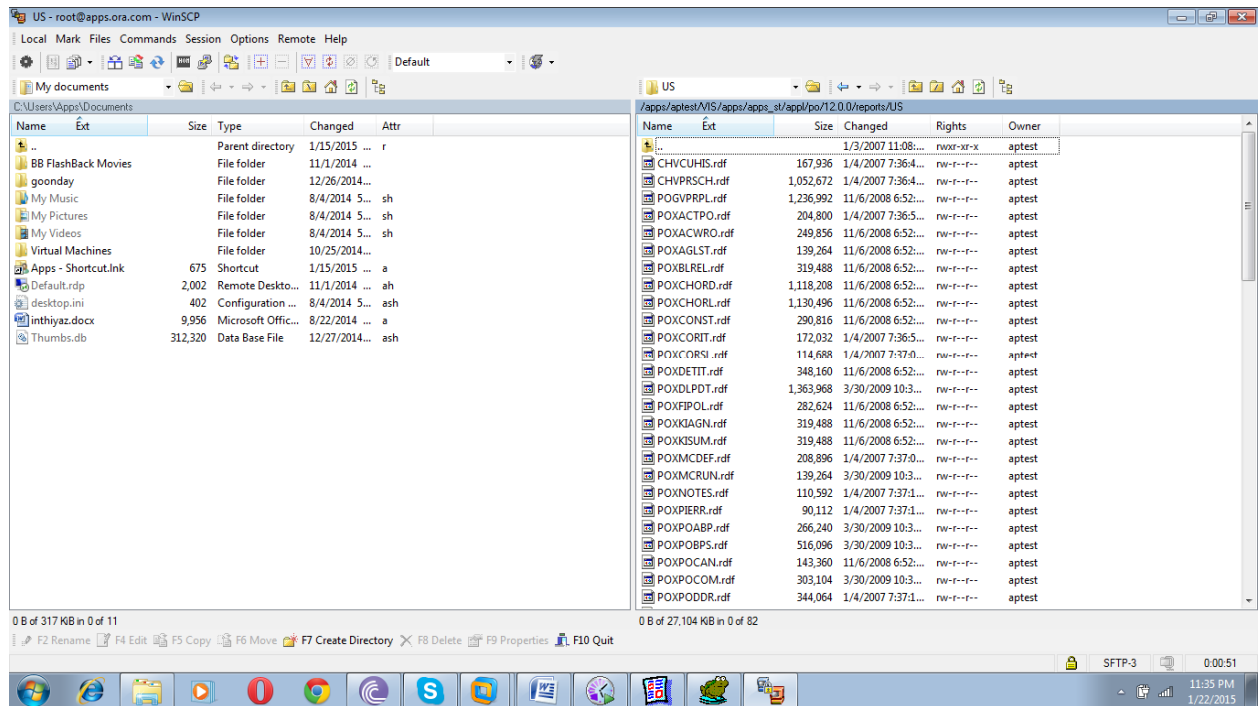
- For meet the requirement purpose you can change the Data Model and you can add Placeholder columns, Summary columns, Formula column, Ref cursor query...



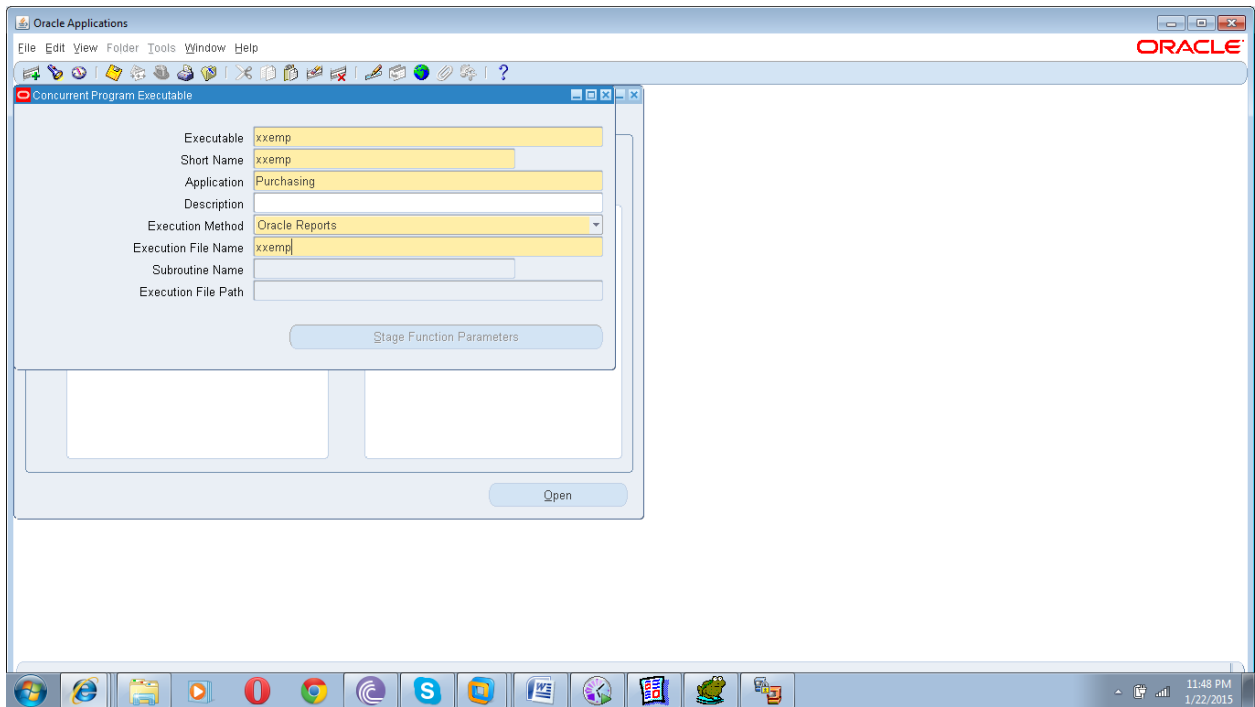
- Now you have to compile the report (CTRL+Shift+K) and save it as ext of **.rdf**



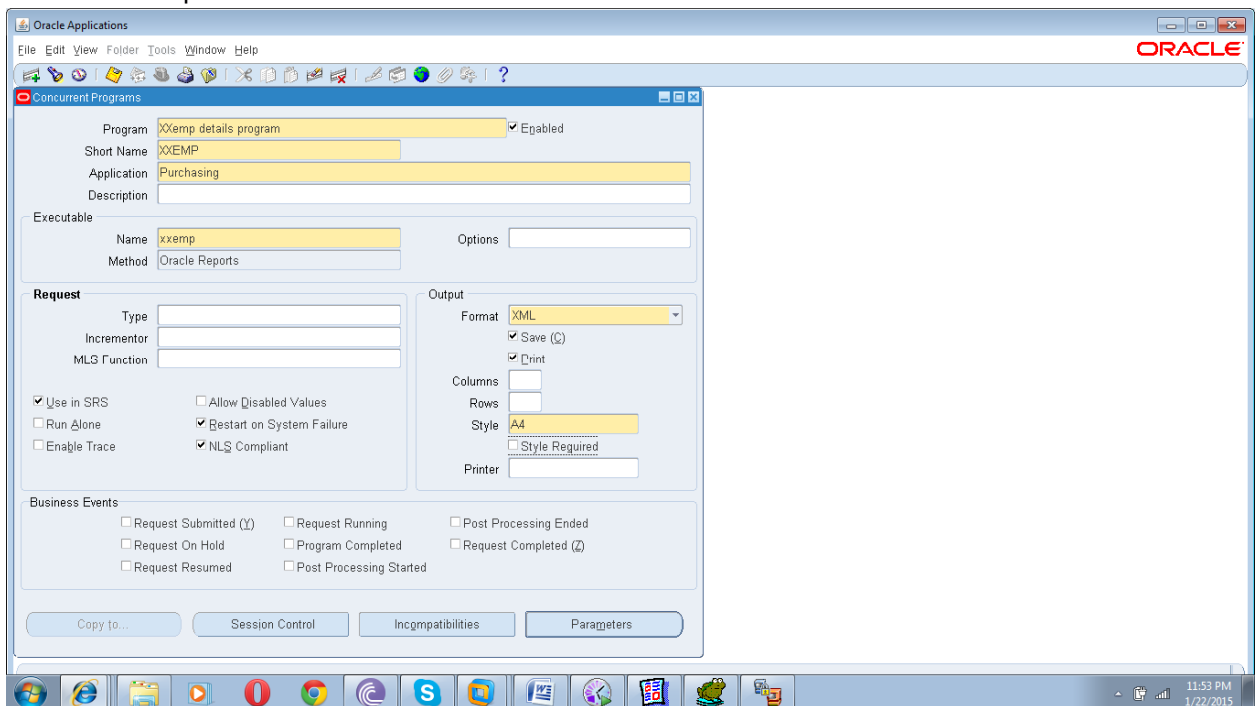
- Now you just move this report to development environment to custom top by using WinSCP



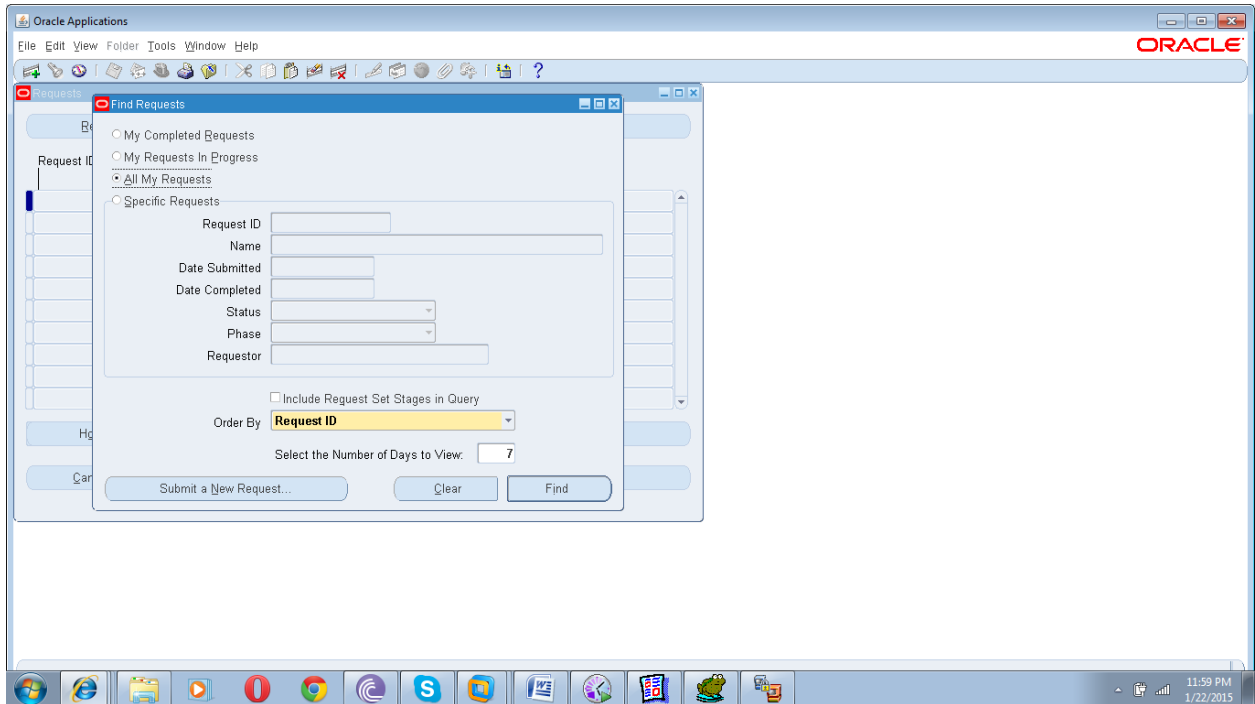
- Now you have to register this rdf report for generation of xml tags.
- You have to login to E-Business suite with user credentials. Now you have to go to the application developer.
- Go to the concurrent program executable window and you have to create executable for the above report.
- Executable method should be Oracle Reports and Executable file name should be the rdf report which ever we have to move the custom top.

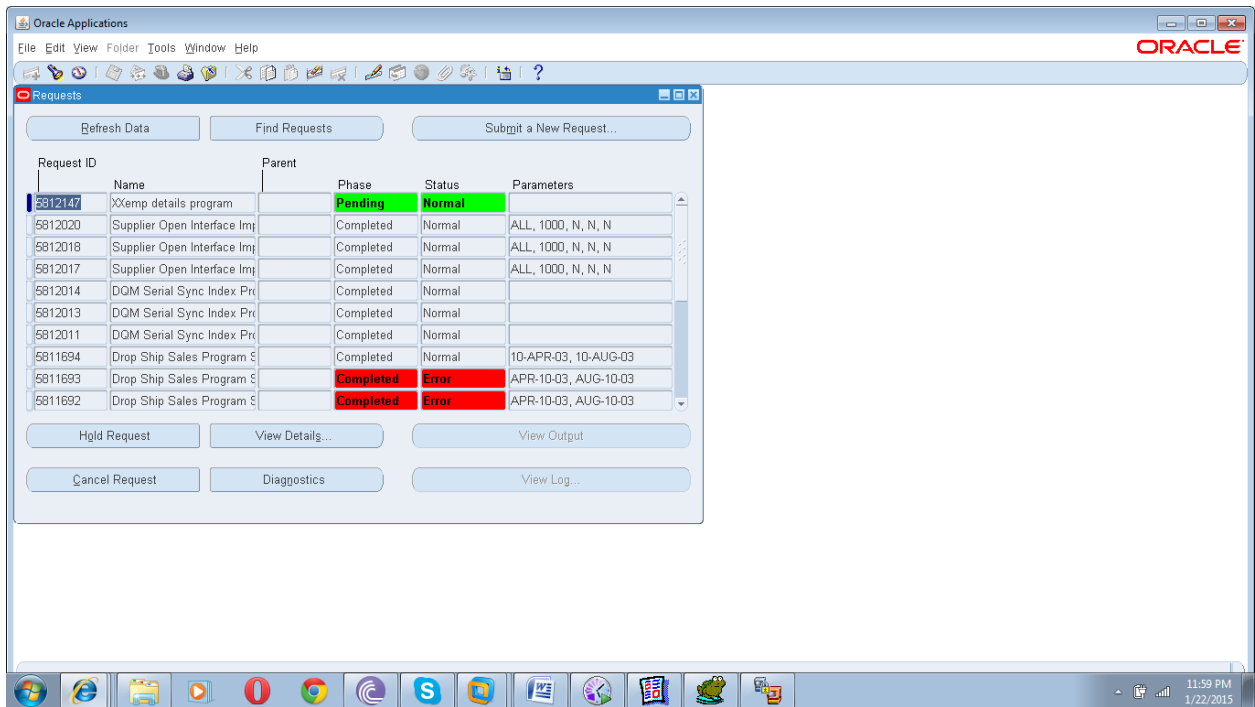


- Now we have to create a concurrent program for this executable. Here the main thing is the output format should be XML.

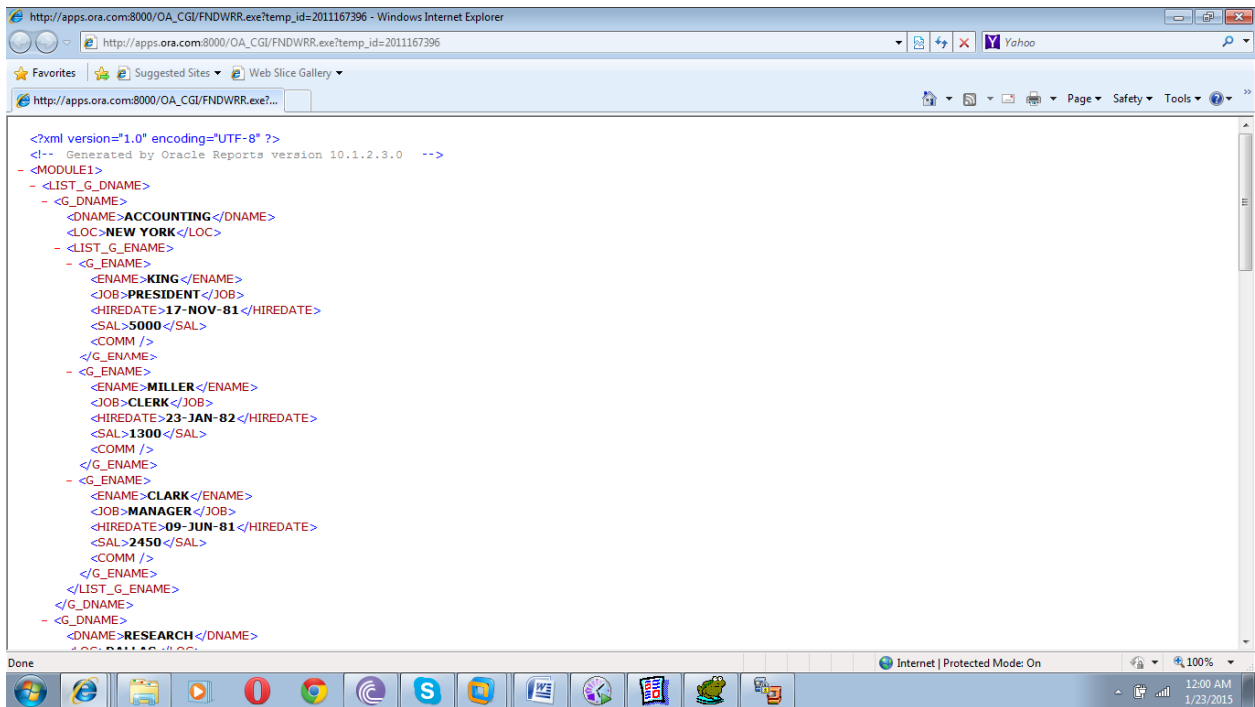


- Now this concurrent program attaches to the request group and the request group should be attach to the particular responsibility.
- We have to submit this program in SRS window and will get Xml tags.

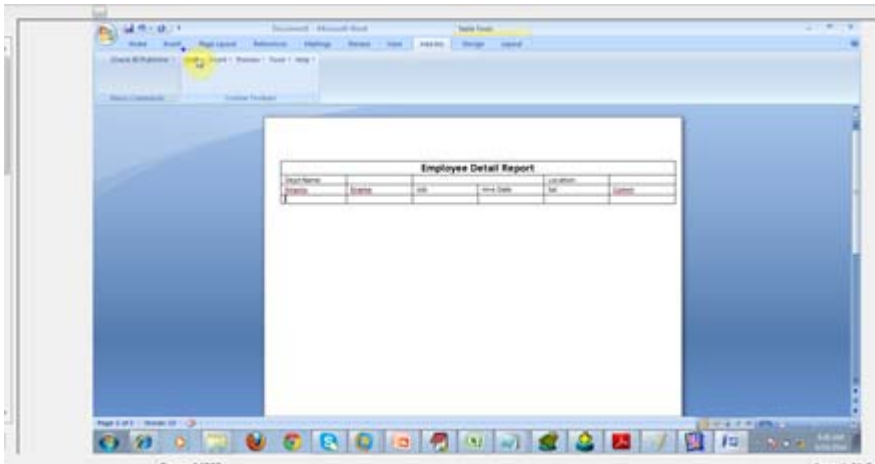




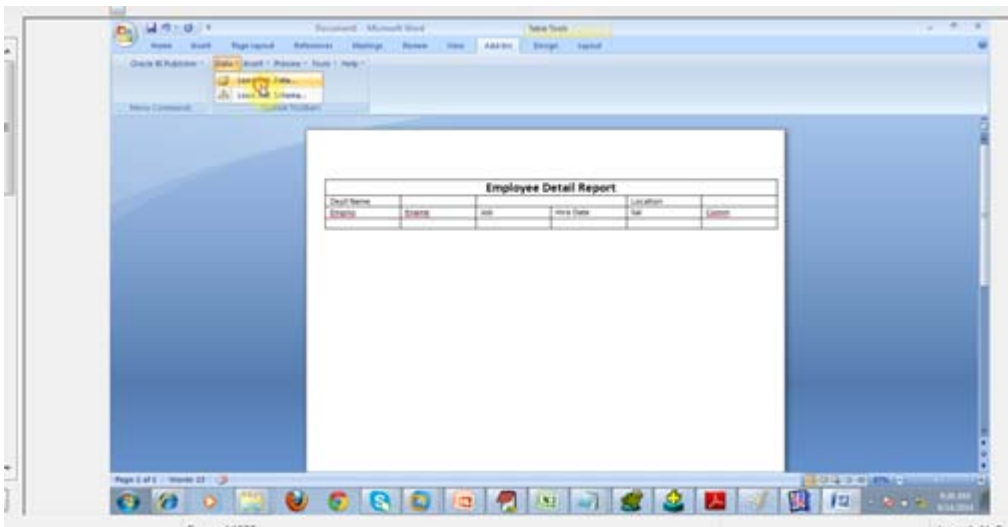
- Phase and status will come as Completed and Normal then xml tags will generate.



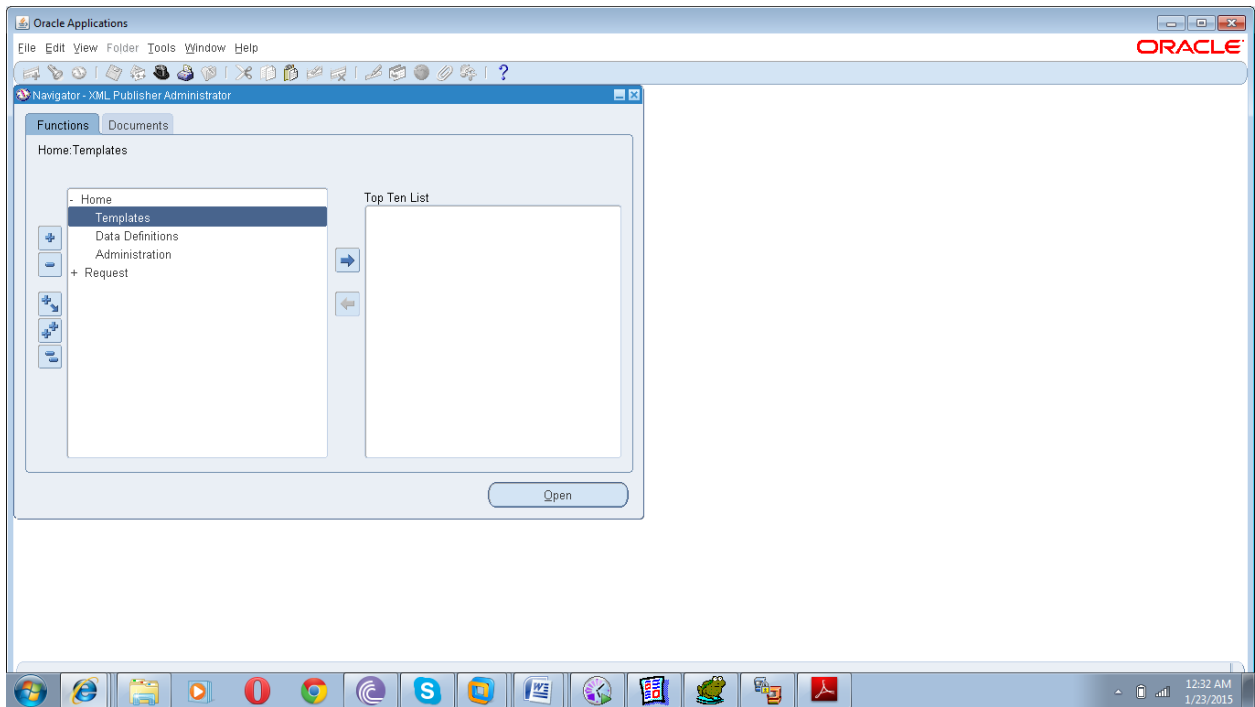
- Now we have to save this xml file with extension of **.xml**.
- Next we have to Design the Rtf and will load this xml tags to that file.
- Open a word document and design the report as per client requirement.



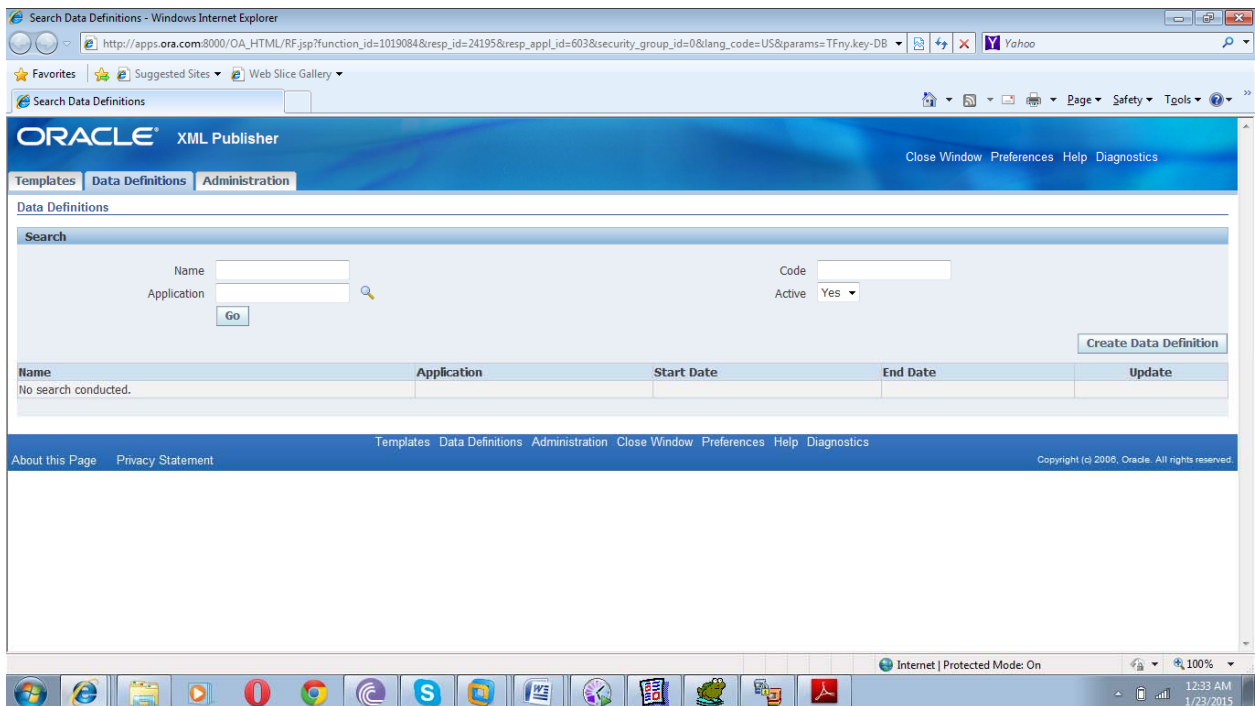
- Now we have to load the xml data and use the business logics to achieve the client requirements.



- Now we have to save this rtf file with extension of Rich Text Format (rtf).
- Now we have to register this rtf file in the xml publisher responsibility.
- Xml Publisher Administrator -> Home ->Data Definitions

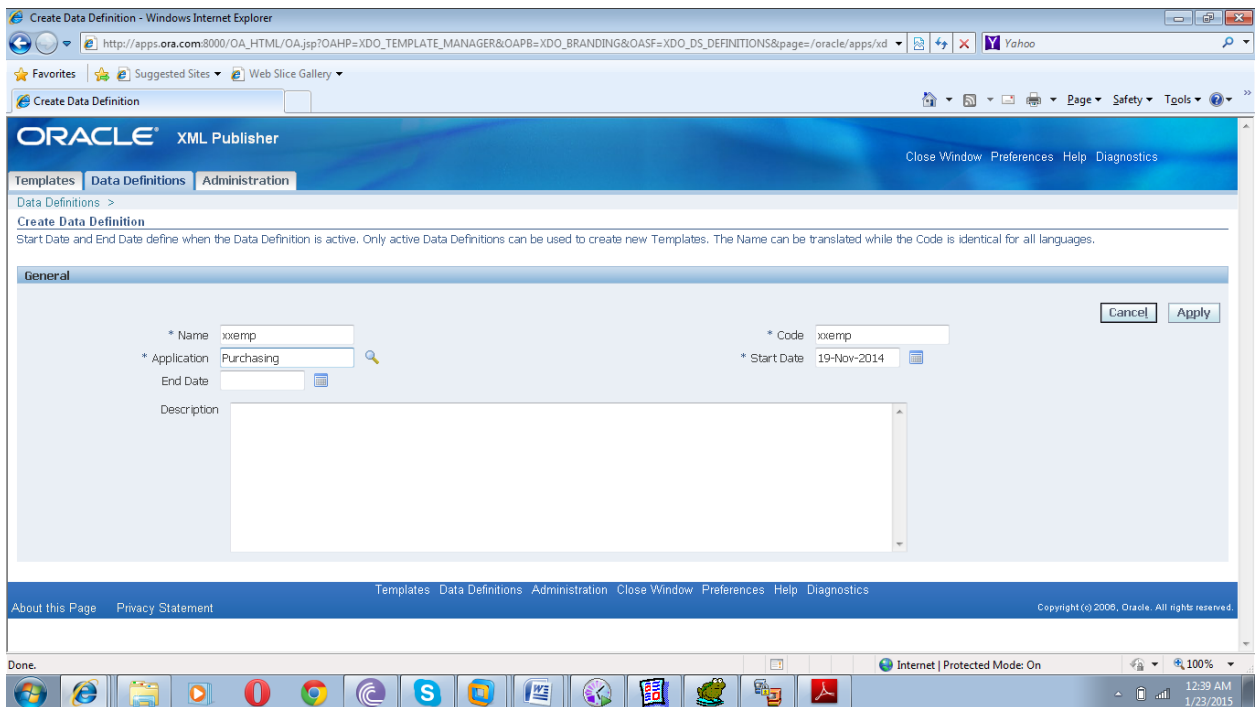


Click on to the Data Definitions you will get xml publisher window

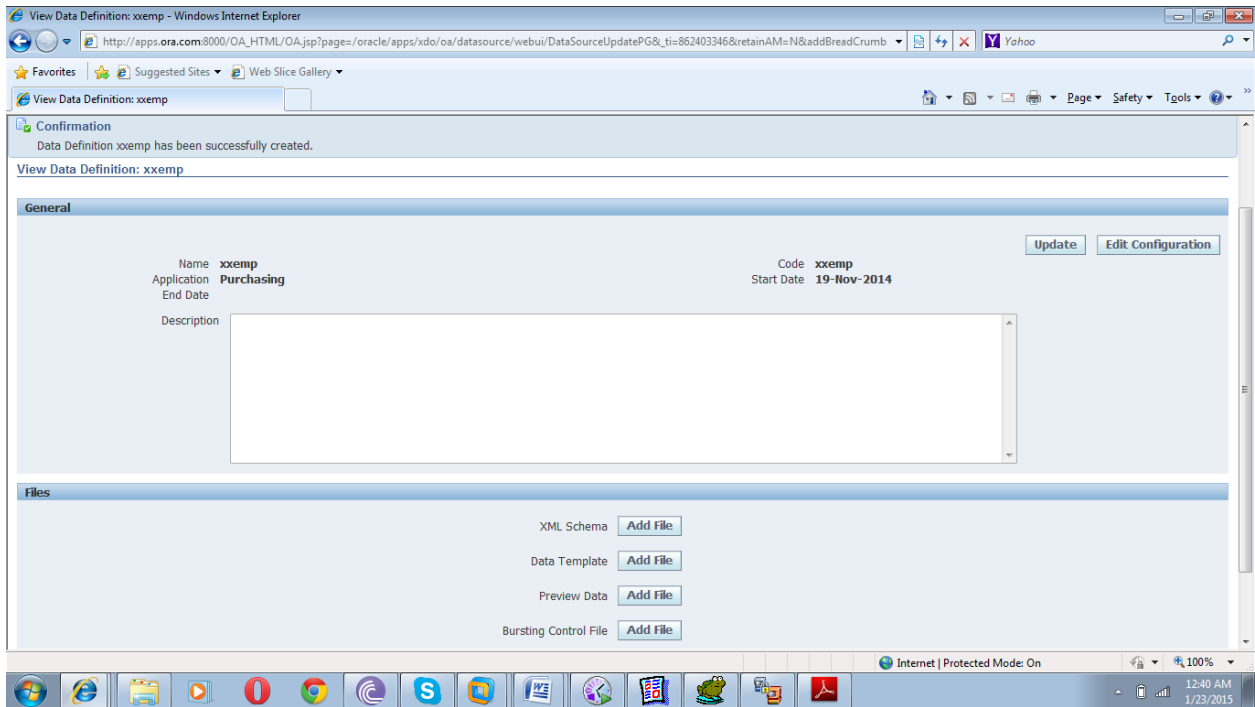


- Click on create data definitions and enter the mandatory fields then press apply

Name: User friendly
Code: Concurrent program short name
Application: APPLICATION of Source rdf (ex: Custom_appl, Purchasing)
Start Date: Developing date



- Data Definition has been successfully created.



View Data Definition: xxemp - Windows Internet Explorer

http://apps.ora.com:8000/OA_HTML/OA.jsp?page=/oracle/apps/xdo/oa/datasource/webui/DataSourceUpdatePG&ti=862403346&retainAM=N&addBreadCrumb

View Data Definition: xxemp

Confirmation
Data Definition xxemp has been successfully created.

View Data Definition: xxemp

General

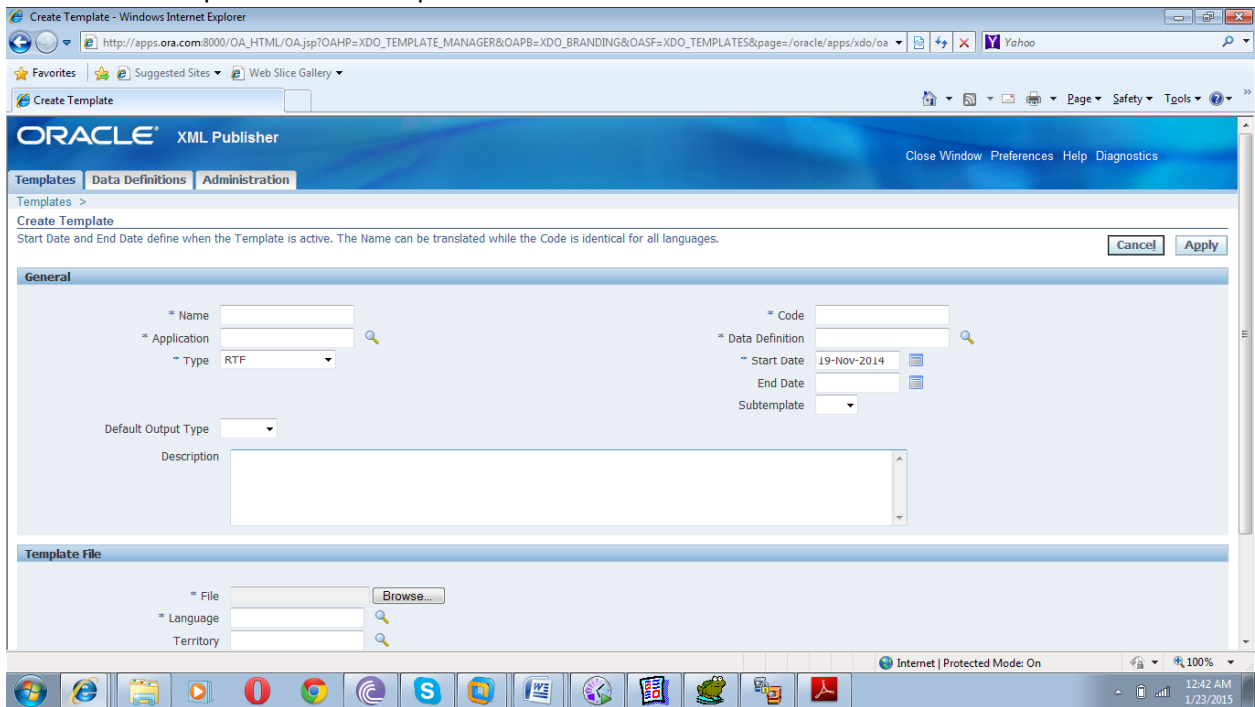
Name: **xxemp**
Application: **Purchasing**
End Date:
Description:
Code: **xxemp**
Start Date: **19-Nov-2014**

Update Edit Configuration

Files

XML Schema Add File
Data Template Add File
Preview Data Add File
Bursting Control File Add File

- Next Step is to create Template.



Create Template - Windows Internet Explorer

http://apps.ora.com:8000/OA_HTML/OA.jsp?OAHP=XDO_TEMPLATE_MANAGER&OAPB=XDO_BRANDING&OASF=XDO_TEMPLATES&page=/oracle/apps/xdo/oa

Create Template

ORACLE XML Publisher Close Window Preferences Help Diagnostics

Templates Data Definitions Administration

Templates >

Create Template
Start Date and End Date define when the Template is active. The Name can be translated while the Code is identical for all languages.

Cancel Apply

General

* Name
* Application
* Type: RTF
* Code
* Data Definition
* Start Date: 19-Nov-2014
End Date
Subtemplate
Default Output Type
Description

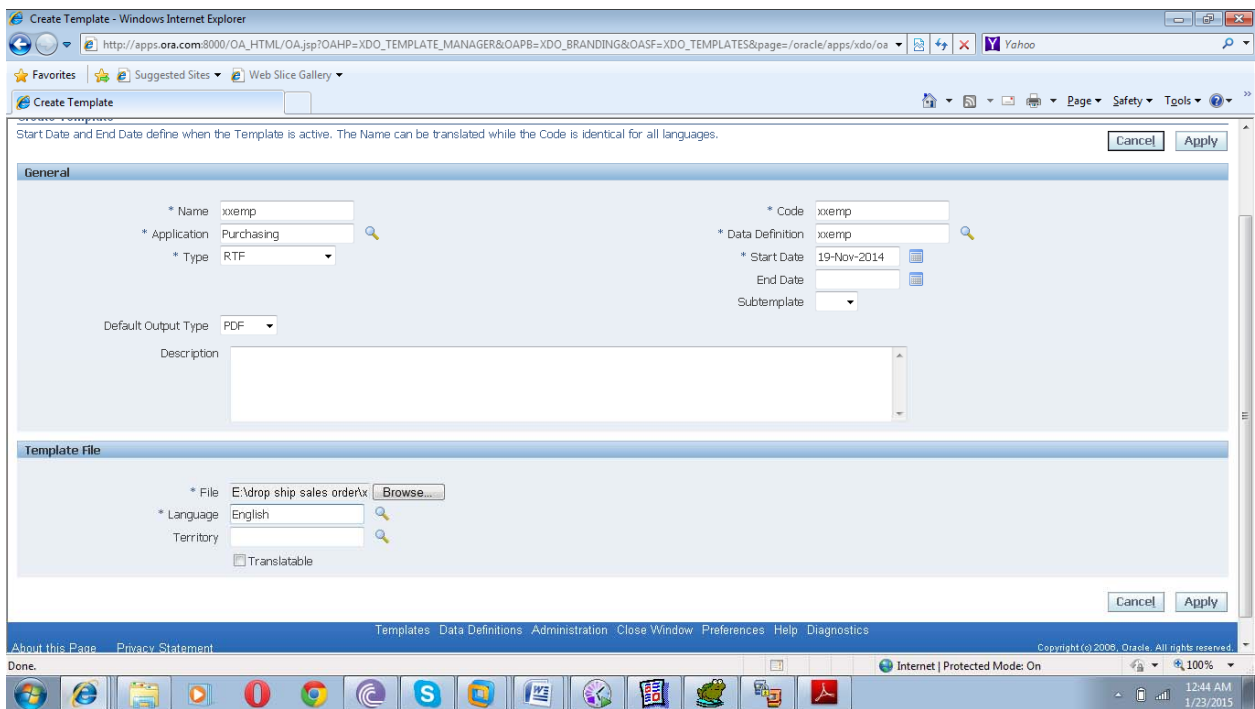
Template File

* File Browse...
* Language
Territory

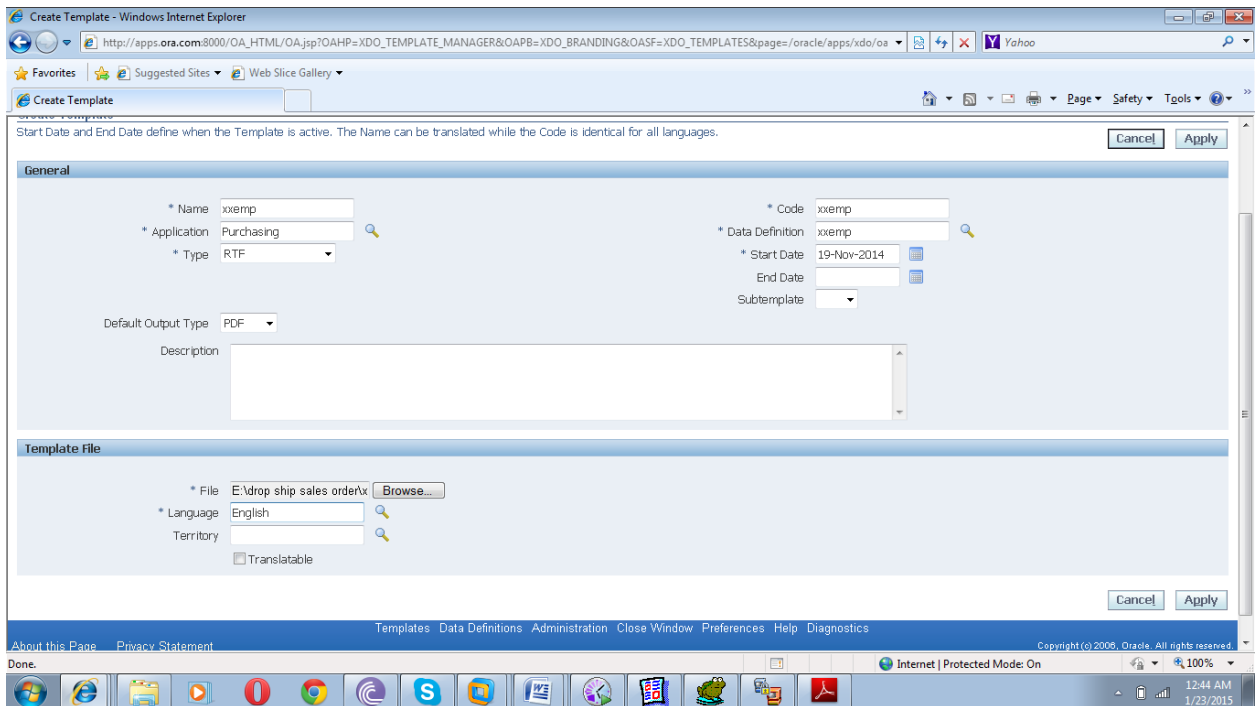
- Enter the mandatory fields as :

Name: User friendly
Application: APPLICATION of Source rdf (ex: Custom_appl, Purchasing)
Code: Concurrent program short name
Data Definition: Created Data Definition
Type: Rtf
Start Date: Developing date
Default Output Type: Provide the Output Type (PDF , Exls..)
File: Rtf File to Browse
Language: Eng

- Browse the rtf file and mention the language then click applies.



- Template has been successfully created



Create Template - Windows Internet Explorer

http://apps.oracle.com:8000/OA_HTML/OA.jsp?OAHP=XDO_TEMPLATE_MANAGER&OAPB=XDO_BRANDING&OASF=XDO_TEMPLATES&page=/oracle/apps/xdo/oa

Create Template

Start Date and End Date define when the Template is active. The Name can be translated while the Code is identical for all languages.

General

* Name: xxemp

* Application: Purchasing

* Type: RTF

* Code: xxemp

* Data Definition: xxemp

* Start Date: 19-Nov-2014

End Date:

Subtemplate:

Default Output Type: PDF

Description:

Template File

* File: E:\drop ship sales order\ Browse...

* Language: English

Territory:

☐ Translatable

Templates Data Definitions Administration Close Window Preferences Help Diagnostics

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Done.

Internet | Protected Mode: On

12:44 AM 1/23/2015

- Now you have to go to the related xml publisher responsibility and submit the concurrent program you will get output as below.

1421953120119out.pdf - Adobe Reader

File Edit View Document Tools Window Help

139%

Find

Employee Details Report				
Dept Name	ACCOUNTING		Loc	NEW YORK
EmpName	Sal	Job	Commission	Hiredate
KING	5000	PRESIDENT		17-NOV-81
MILLER	1300	CLERK		23-JAN-82
CLARK	2450	MANAGER		09-JUN-81
Dept Name	RESEARCH		Loc	DALLAS
EmpName	Sal	Job	Commission	Hiredate
JONES	2975	MANAGER		02-APR-81
SCOTT	3000	ANALYST		09-DEC-82
FORD	3000	ANALYST		03-DEC-81
SMITH	800	CLERK		17-DEC-80
ADAMS	1100	CLERK		12-JAN-83
Dept Name	SALES		Loc	CHICAGO
EmpName	Sal	Job	Commission	Hiredate
WARD	1250	SALESMAN	500	22-FEB-81
MARTIN	1250	SALESMAN	1400	28-SEP-81
TURNER	1500	SALESMAN	0	08-SEP-81
JAMES	950	CLERK		03-DEC-81
ALLEN	1600	SALESMAN	300	20-FEB-81
BLAKE	2850	MANAGER		01-MAY-81

12:28 AM
1/23/2015

Lab 2: XML Publisher Report Using Data Template:

Step 1: Create the table and insert records in the table from which you want to print the data

```
CREATE TABLE APPS.EMP
(
EMPNO NUMBER(4) NOT NULL,
ENAME VARCHAR2(10),
JOB VARCHAR2(9),
MGR NUMBER(4),
HIREDATE DATE,
SAL NUMBER(7, 2),
COMM NUMBER(7, 2),
DEPTNO NUMBER(2)
);
```

Step 2: Create the data definition template

```
<dataTemplate name="Purchase_Order" description="template description" version="1.1">
<parameters>
<parameter name="dept_no" datatype="number"/>
</parameters>
<dataQuery>
<sqlStatement name="a"><![CDATA[select empno,ename,job,mgr,hiredate,sal,comm,deptno
from emp where deptno=nvl(:dept_no,deptno)]]>
    </sqlStatement>
</dataQuery>

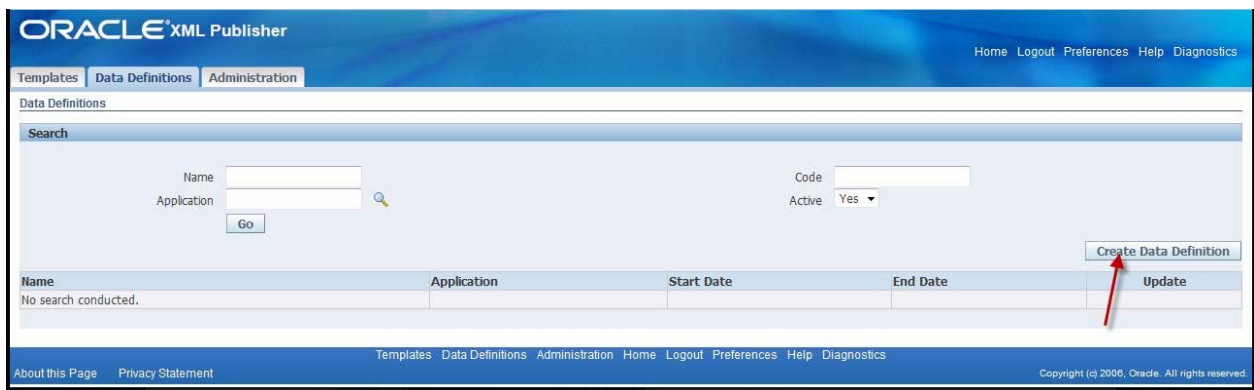
<dataStructure>
<group name="new" source="a">
<element name="Employee_NUMBER" value="empno"/>
<element name="EMPLOYEE_NAME" value="ename"/>
<element name="JOB" value="job"/>
<element name="MGR" value="mgr"/>
<element name="HIREDATE" value="hiredate"/>
<element name="SALARY" value="sal"/>
<element name="COMMISSION" value="comm"/>
<element name="DEPT_NO" value="deptno"/>
```

```
</group>
</dataStructure>
</dataTemplate>
```

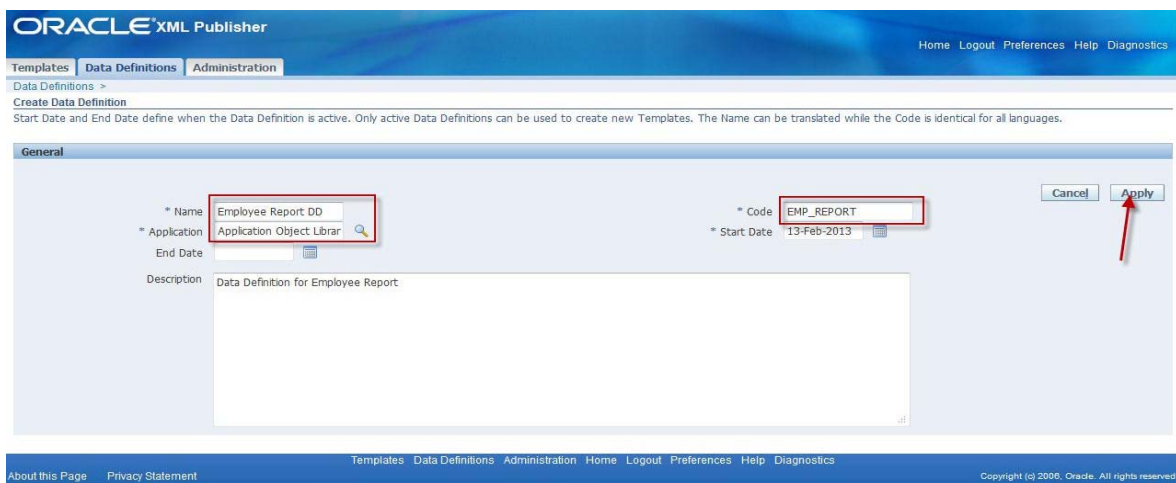
- Save the above file with name of emp.xml.

Step 3: Create data definition in xml publisher and attach the data definition template to the data definition

Navigation: XML Publisher Administrator -> Data Definitions -> Create Data Definition



The screenshot shows the 'ORACLE XML Publisher' interface. The 'Data Definitions' tab is selected. A search bar is visible with fields for Name, Application, Code, and Active. A 'Go' button is next to the Application field. On the right side, there is a 'Create Data Definition' button, which is highlighted with a red arrow. Below the search bar, there is a table with columns: Name, Application, Start Date, End Date, and Update. The table currently shows 'No search conducted.' at the bottom. The footer includes links for 'About this Page' and 'Privacy Statement', and a copyright notice for 2008 Oracle.



The screenshot shows the 'ORACLE XML Publisher' interface for creating a new data definition. The 'Data Definitions' tab is selected, and the 'Create Data Definition' page is displayed. The 'General' section is active. Fields include: * Name (Employee Report DD), * Application (Application Object Librar), * Code (EMP_REPORT), * Start Date (13-Feb-2013), and a Description field (Data Definition for Employee Report). The 'Apply' button is highlighted with a red arrow. The footer includes links for 'About this Page' and 'Privacy Statement', and a copyright notice for 2008 Oracle.

ORACLE XML Publisher Home Logout Preferences Help Diagnostics

Templates Data Definitions Administration

Data Definitions >


Confirmation
Data Definition Employee Report DD has been successfully created.

View Data Definition: Employee Report DD

General

Name **Employee Report DD** Code **EMP_REPORT**
 Application **Application Object Library** Start Date **13-Feb-2013**
 End Date
 Description Data Definition for Employee Report

Files

XML Schema
 Data Template 
 Preview Data
 Bursting Control File

[Return to Data Definitions](#)

Templates Data Definitions Administration Home Logout Preferences Help Diagnostics

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ORACLE XML Publisher Home Logout Preferences Help Diagnostics

Templates Data Definitions Administration

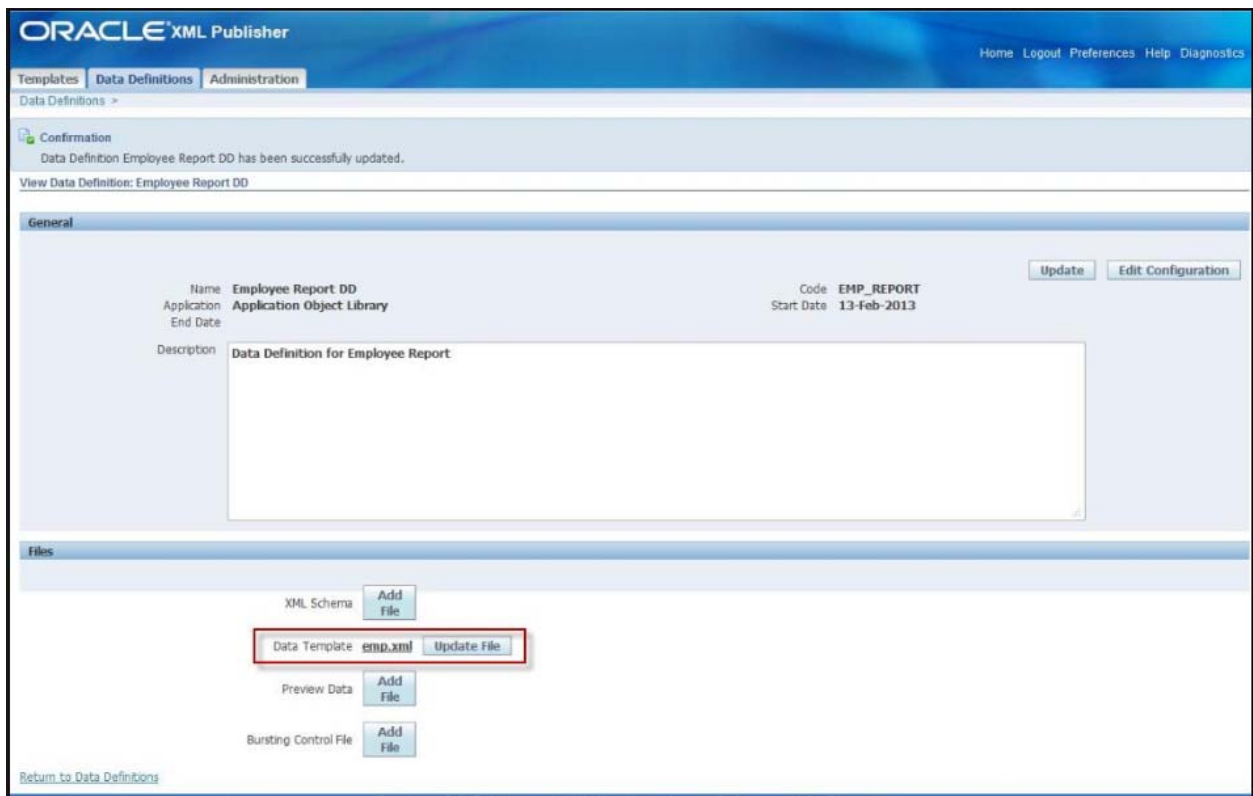
Data Definitions > View Data Definition: Employee Report DD >

Add File for Data Definition: Employee Report DD

* Data Template C:\Users\shverma\Des

Templates Data Definitions Administration Home Logout Preferences Help Diagnostics

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The screenshot shows the ORACLE XML Publisher Administration interface. At the top, there are tabs for 'Templates', 'Data Definitions', and 'Administration'. The 'Data Definitions' tab is active, showing a confirmation message: 'Data Definition Employee Report DD has been successfully updated.' Below this, the 'View Data Definition: Employee Report DD' page is displayed. The 'General' section shows the following details:

- Name: Employee Report DD
- Application: Application Object Library
- Code: EMP_REPORT
- Start Date: 13-Feb-2013
- Description: Data Definition for Employee Report

Buttons for 'Update' and 'Edit Configuration' are visible. Below the 'General' section, the 'Files' section contains several file management options:

- XML Schema: Add File
- Data Template: emp.xml (highlighted with a red box), Update File
- Preview Data: Add File
- Bursting Control File: Add File

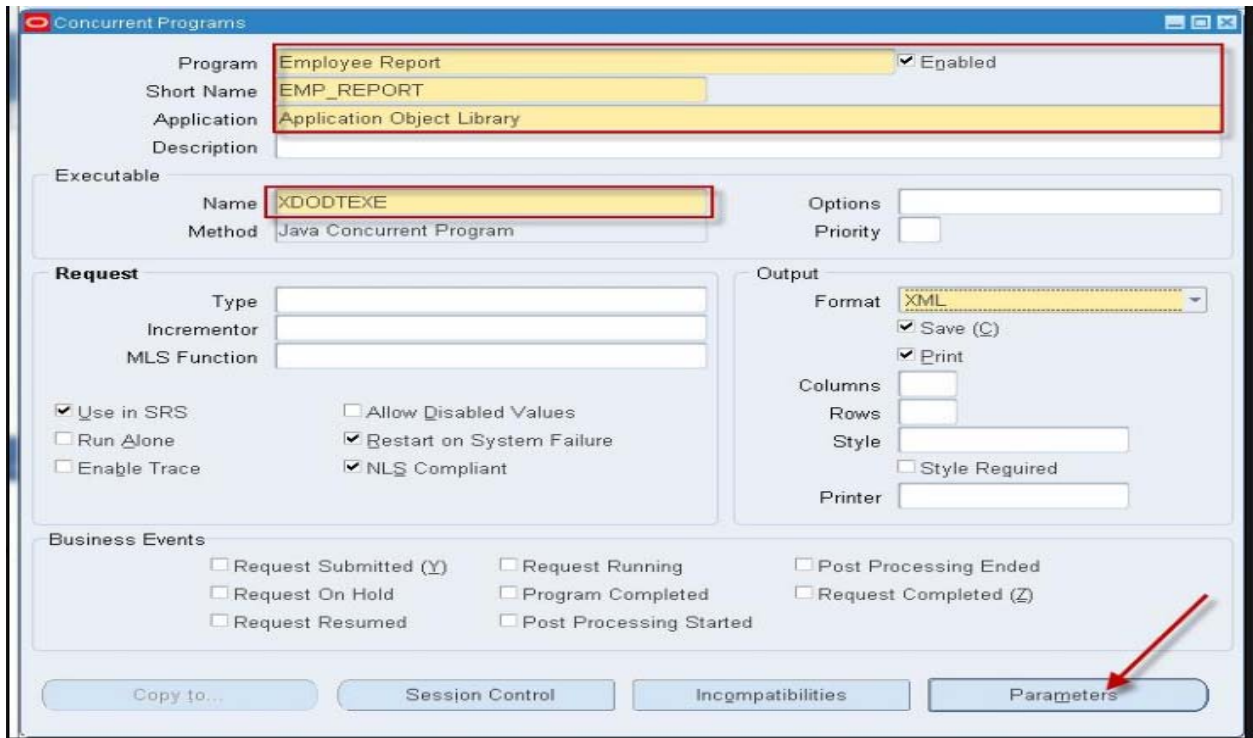
A 'Return to Data Definitions' link is at the bottom left.

Step 4: Create Concurrent Program to generate the Data XML output.

Navigation: System Administrator-> Concurrent-> Program->Define

XDODTEXE is java concurrent program used as a BI Publisher Data template Executable. The main purpose of this executable is to identify data template file (.xml) and execute the data template to generate the raw (output) xml data, which is later used by BI Publisher formatting engine to format as per the layout (RTF, PDF, etc.).

This executable will be used by all the BI Publisher reports (Concurrent Program) which are using Data Template to generate the xml data.



Concurrent Programs

Program: Employee Report ☒ Enabled
Short Name: EMP_REPORT
Application: Application Object Library
Description:

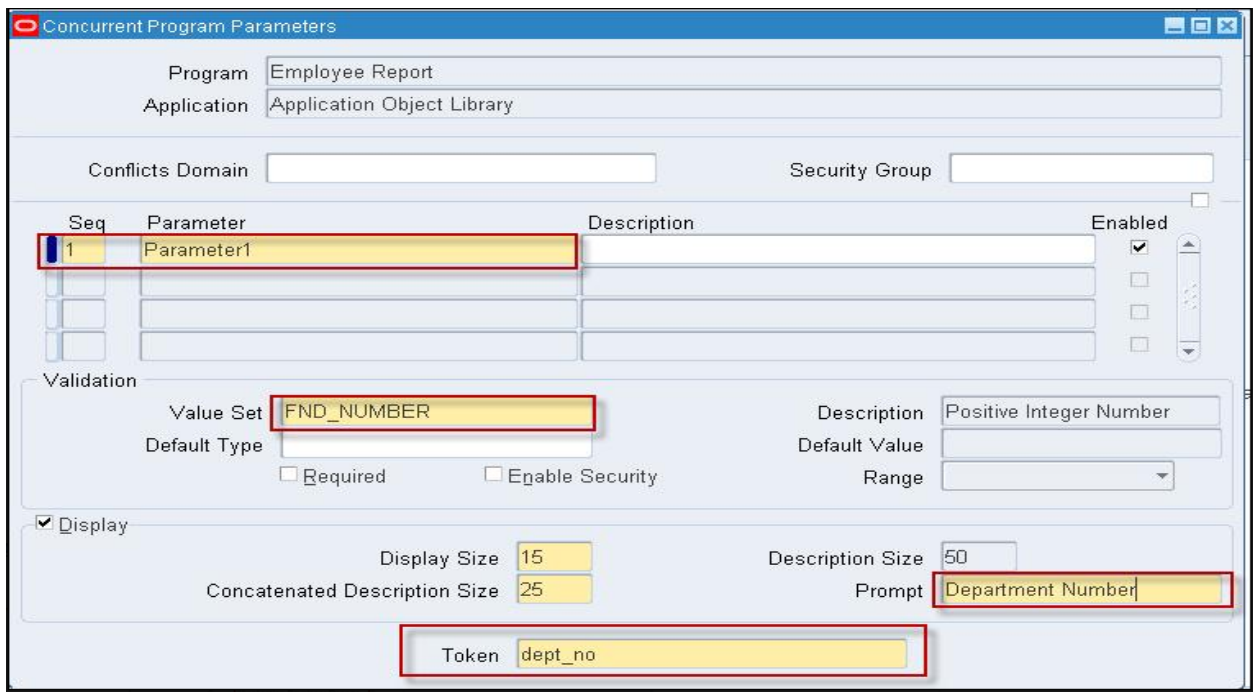
Executable
Name: XDODTEXE
Method: Java Concurrent Program
Options:
Priority:

Request
Type:
Incrementor:
MLS Function:
☒ Use in SRS
☐ Run Alone
☐ Enable Trace
☐ Allow Disabled Values
☒ Restart on System Failure
☒ NLS Compliant

Output
Format: XML
☒ Save (S)
☒ Print
Columns:
Rows:
Style:
☐ Style Required
Printer:

Business Events
☐ Request Submitted (Y) ☐ Request Running ☐ Post Processing Ended
☐ Request On Hold ☐ Program Completed ☐ Request Completed (Z)
☐ Request Resumed ☐ Post Processing Started

Copy to... Session Control Incmpatibilities **Parameters**



Concurrent Program Parameters

Program: Employee Report
Application: Application Object Library

Conflicts Domain: Security Group:

Seq	Parameter	Description	Enabled
1	Parameter1		<input checked="" type="checkbox"/>

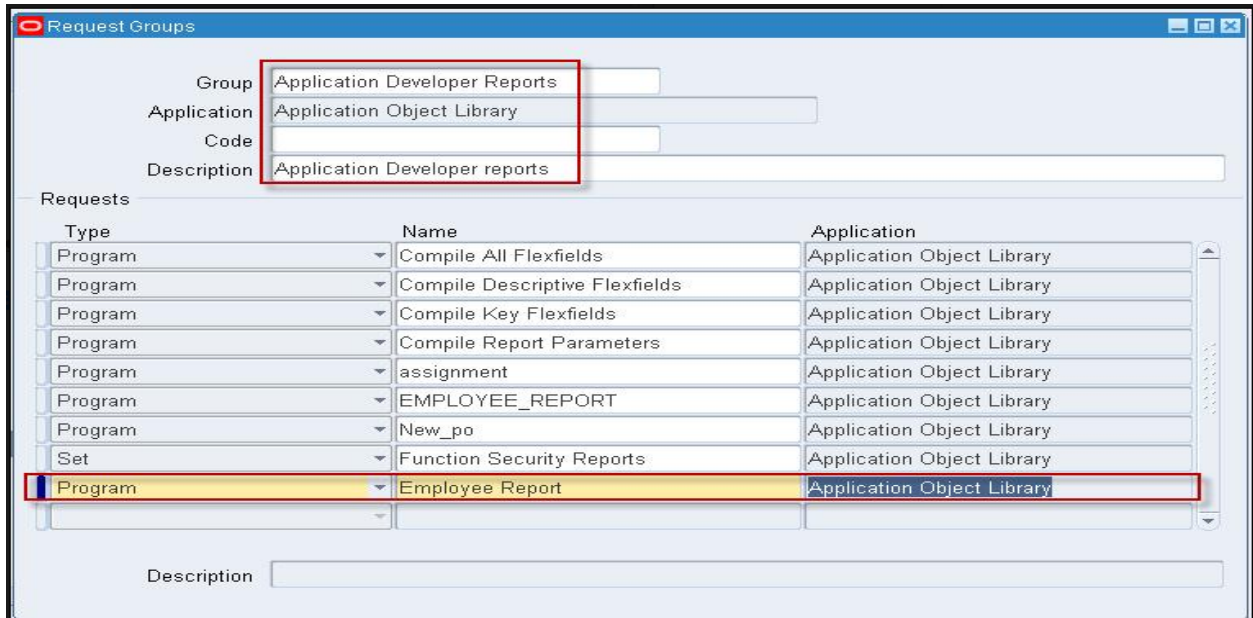
Validation
Value Set: FND_NUMBER
Default Type:
☐ Required ☐ Enable Security
Description: Positive Integer Number
Default Value:
Range:

☒ **Display**
Display Size: 15
Concatenated Description Size: 25
Description Size: 50
Prompt: Department Number

Token: dept_no

Step 5: Assignment of concurrent program to responsibility

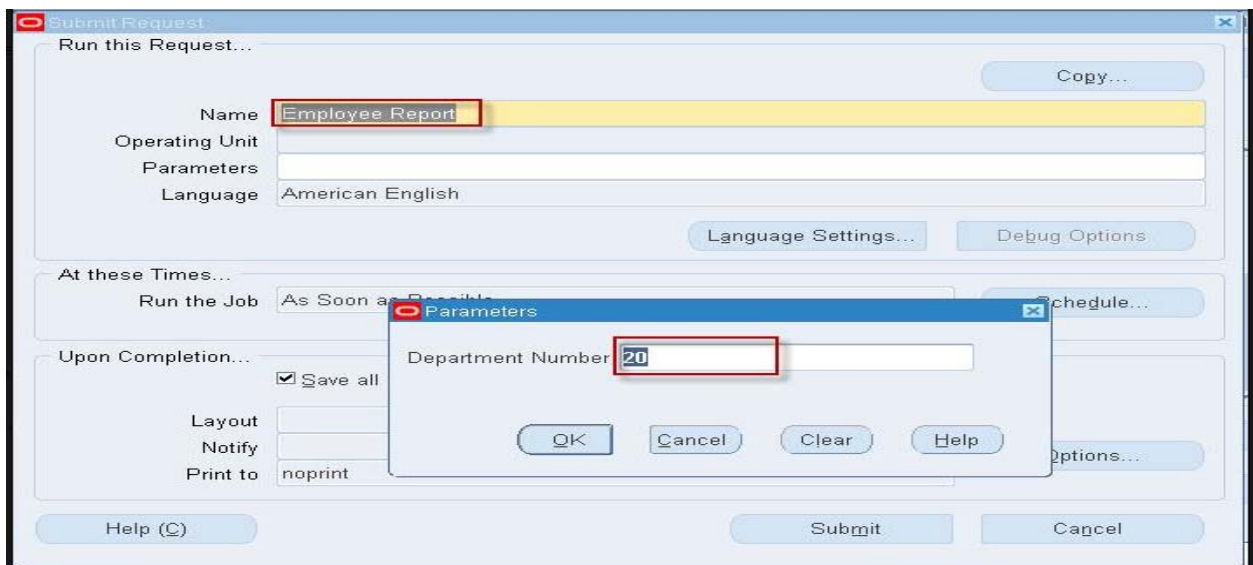
Navigation: System Administrator-> Security-> Responsibility->Request



Type	Name	Application
Program	Compile All Flexfields	Application Object Library
Program	Compile Descriptive Flexfields	Application Object Library
Program	Compile Key Flexfields	Application Object Library
Program	Compile Report Parameters	Application Object Library
Program	assignment	Application Object Library
Program	EMPLOYEE_REPORT	Application Object Library
Program	New_po	Application Object Library
Set	Function Security Reports	Application Object Library
Program	Employee Report	Application Object Library

Step 6: Execute the concurrent program

Navigation: Application Developer-> Concurrent-> Submit a New Request->Single Request



Run this Request...

Name: **Employee Report**

Operating Unit:

Parameters:

Language: American English

At these Times... Run the Job: As Soon as Possible

Upon Completion... ☒ Save all

Layout:

Notify:

Print to: noprint

Parameters Dialog:

Department Number: **20**

Buttons: OK, Cancel, Clear, Help, Submit, Cancel

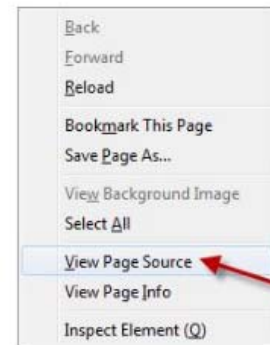


Output will come like this .click on page source and save the page as **EMP_Data.xml**

```

- <PURCHASE_ORDER>
  <DEP/>
  - <LIST_NEW>
    - <NEW>
      <EMPLOYEE_NUMBER>7369</EMPLOYEE_NUMBER>
      <EMPLOYEE_NAME>SMITH</EMPLOYEE_NAME>
      <JOB>CLERK</JOB>
      <MGR>7902</MGR>
      <HIREDATE>1980-12-17T00:00:00.000+05:30</HIREDATE>
      <SALARY>800</SALARY>
      <COMMISION/>
      <DEPT_NO>20</DEPT_NO>
    </NEW>
    - <NEW>
      <EMPLOYEE_NUMBER>7499</EMPLOYEE_NUMBER>
      <EMPLOYEE_NAME>ALLEN</EMPLOYEE_NAME>
      <JOB>SALESMAN</JOB>
      <MGR>7698</MGR>
      <HIREDATE>1981-02-20T00:00:00.000+05:30</HIREDATE>
      <SALARY>1600</SALARY>
      <COMMISION>300</COMMISION>
      <DEPT_NO>30</DEPT_NO>
    </NEW>
    - <NEW>
      <EMPLOYEE_NUMBER>7521</EMPLOYEE_NUMBER>
      <EMPLOYEE_NAME>WARD</EMPLOYEE_NAME>
      <JOB>SALESMAN</JOB>
      <MGR>7698</MGR>
      <HIREDATE>1981-02-22T00:00:00.000+05:30</HIREDATE>
      <SALARY>1250</SALARY>
      <COMMISION>500</COMMISION>
      <DEPT_NO>30</DEPT_NO>
    </NEW>
  </LIST_NEW>
</PURCHASE_ORDER>

```

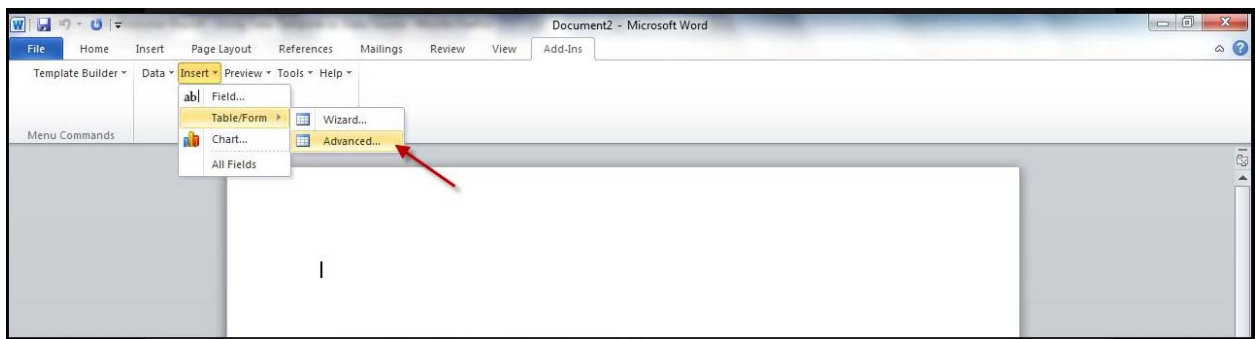
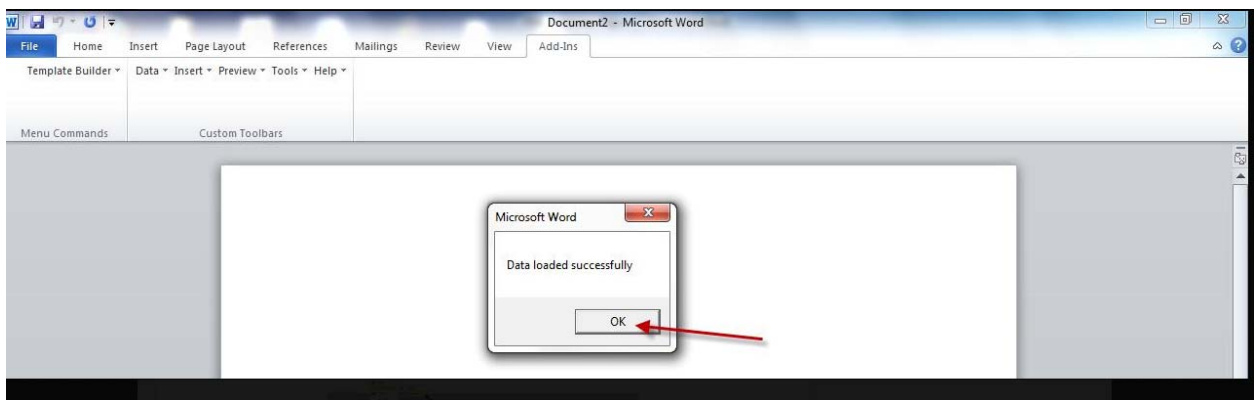
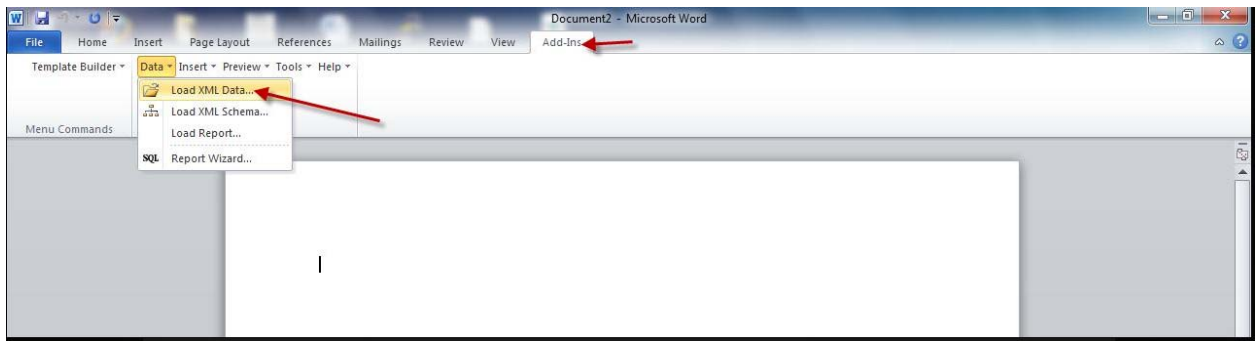


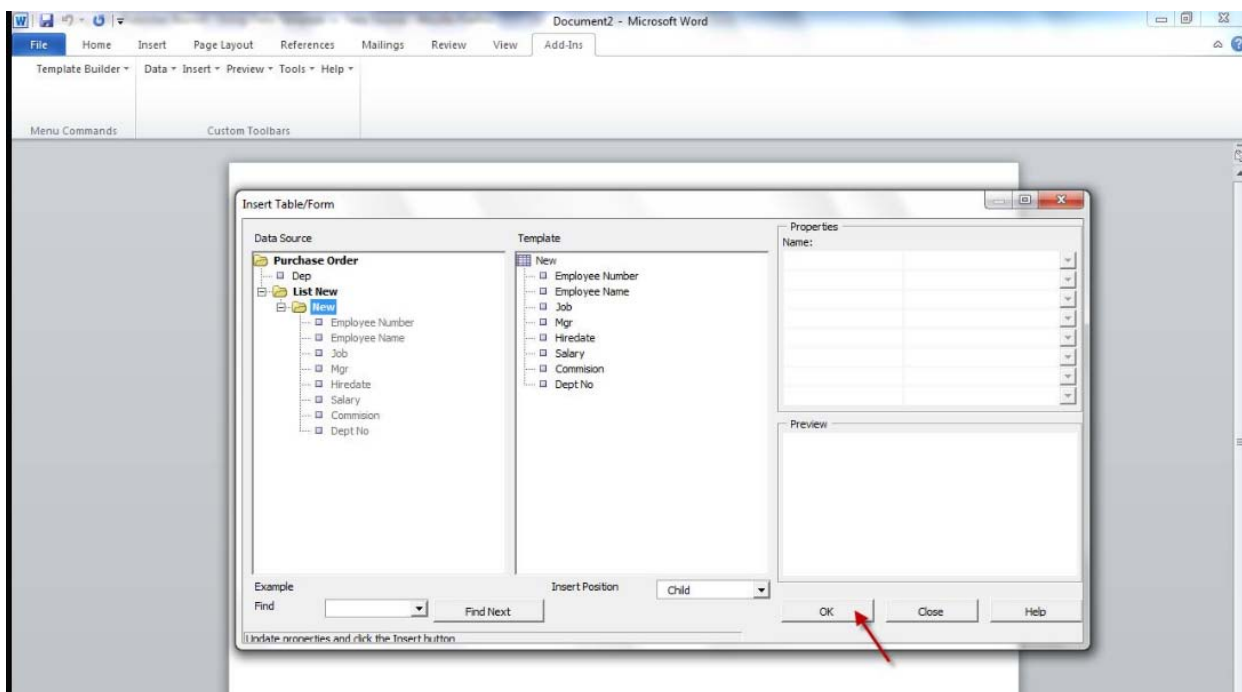
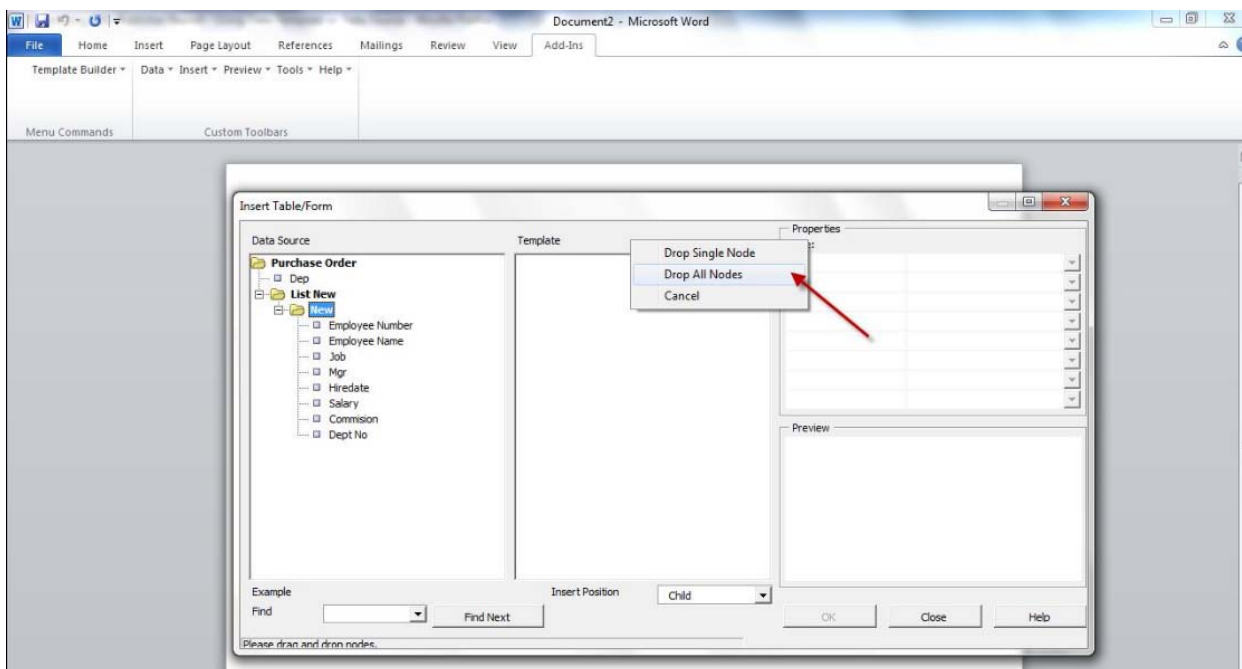
Step 7: Creation of RTF Template

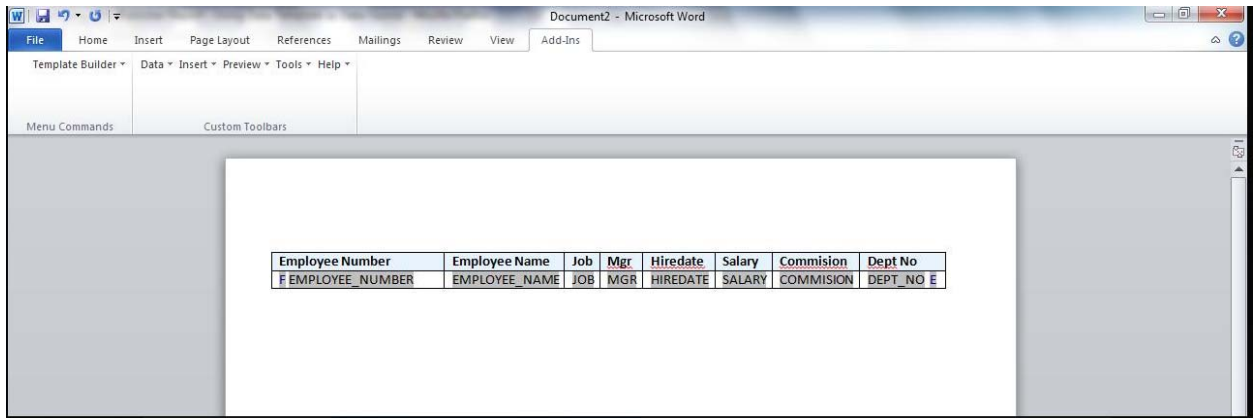
Prerequisite: You have to install XMLP Template Builder

a) Open Microsoft-word file.

b) Click on Add-Ins and then Load XML Data. Give the path of **EMP_Data.xml** file.





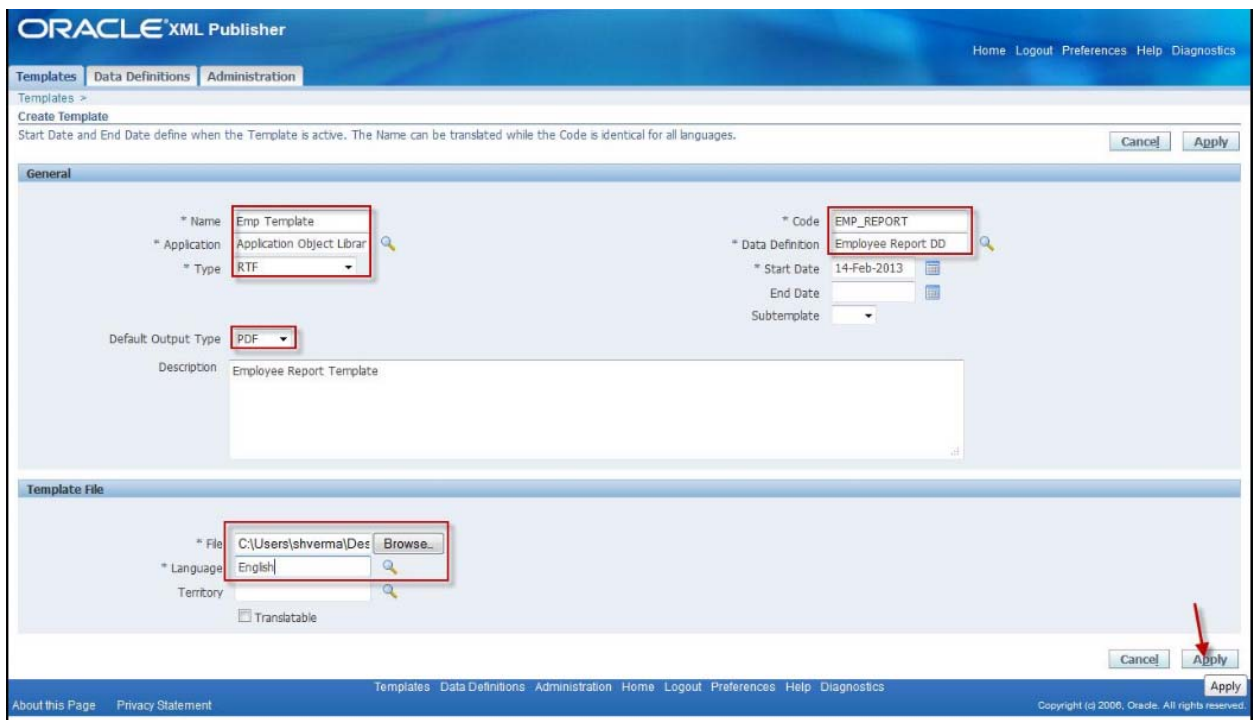


Save the file as **EMP_Template.rtf**

Note: The designing of the report we are doing in this section.

Step 8: Registering the RTF Template

Navigation: XML Publisher Administrator -> Template -> Create Template



Note: The output format of the report we can change in **default output type** section. It may be in excel, html, pdf, rtf.

Step 9: Repeat Step 4 again and see the output

Employee Number	Employee Name	Job	Mgr	Hiredate	Salary	Commission	Dept No
7369	SMITH	CLERK	7902	1980-12-17T00:00:00.000+05:30	800		20
7499	ALLEN	SALESMAN	7698	1981-02-20T00:00:00.000+05:30	1600	300	30
7521	WARD	SALESMAN	7698	1981-02-22T00:00:00.000+05:30	1250	500	30
7566	JONES	MANAGER	7839	1981-04-02T00:00:00.000+05:30	2975		20