

Oracle FLEXCUBE Investor Servicing®
BIP Report Development Guide

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1 Preface

This document describes steps to develop FLEXCUBE IS BIP reports on BIP server.

1.1 Audience

The BIP Report Development book is intended for the FLEXCUBE Application Developers/Users who are authorized to perform the following tasks:

- Develop the new BIP reports
- Modify the existing BIP reports

To Use this manual, you need conceptual and working knowledge of the below:

<i>Proficiency</i>	<i>Resources</i>
FLEXCUBE IS Development overview	<i>FCIS-FD01-01-01-Development Overview Guide</i>
RAD function ID development getting started	<i>FCIS-FD02-01-01-RAD Getting Started</i>
RAD screen development	<i>FCIS-FD02-02-01-RAD Function ID Development</i>
Report development introduction	<i>FCIS-FD07-01-01-Report Getting started</i>

1.2 Related documents

For more information on Reports development, see these resources:

- *FCIS-FD01-01-01-Development Overview Guide*
- *FCIS-FD07-01-01-Report Getting started*
- *FCIS-FD07-03-01-OBIEE repository Development Guide*

1.3 Conventions

The following text conventions are used in this document:

Convention Meaning

Boldface Boldface type indicates graphical user interface elements (for example, menus and menu items, buttons, tabs, dialog controls), including options that you select.

Italic italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.

Monospace Monospace type indicates language and syntax elements, directory and file names, URLs, text that appears on the screen, or text that you enter.

1.4 Pre-request for BIP report development

The following are pre-request for BIP report development:

- Target FLEXCUBE environment
- Oracle BI Publisher middleware installed in report server
- Oracle BI Publisher for Desktop – Windows installed on local machine where report development required

2 Introduction

2.1 How to use this Guide

The information in this guide includes:

- [Chapter 2, "Introduction"](#)
- [Chapter 3, "Getting BI Publisher started"](#)
- [Chapter 4, "BI Publisher environment setup"](#)
- [Chapter 5, "Building BIP Report"](#)
- [Chapter 6, "BIP Report specification sheet"](#)

3 Getting BI Publisher started

BI Publisher is Oracle Corporation's XML based J2EE reporting application. To run a BIP report, BI Publisher requires two files:

- XDO xml file
This file has the definition of report extraction logic like the SELECT statement, input parameters, grouping structure & elements, afterpform, beforereport, and afterreport triggers.
- RTF file
This file represents the graphical layout of the report.

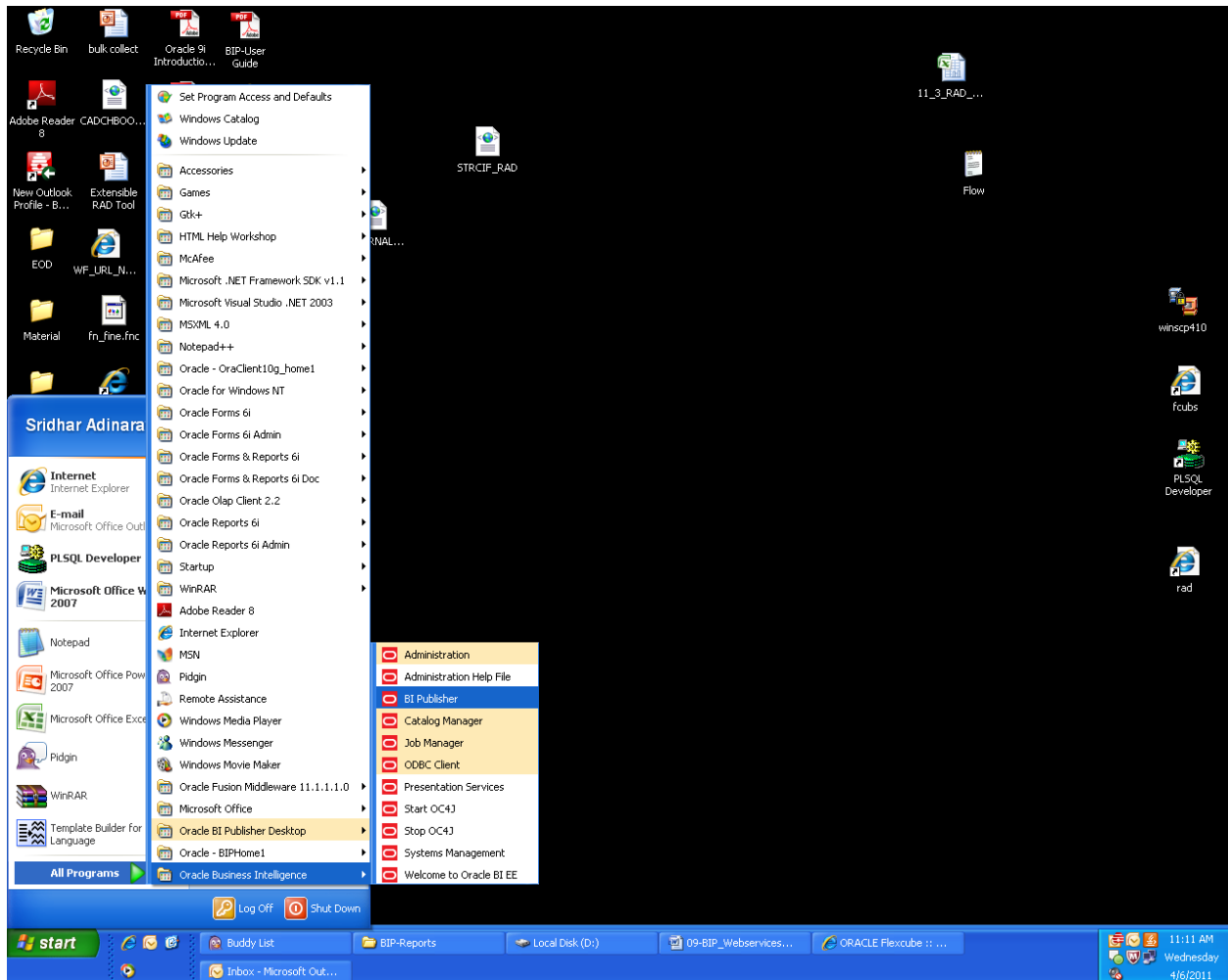
The report output format can be any of HTML, PDF, RTF, and EXCEL.

4 BI Publisher environment setup

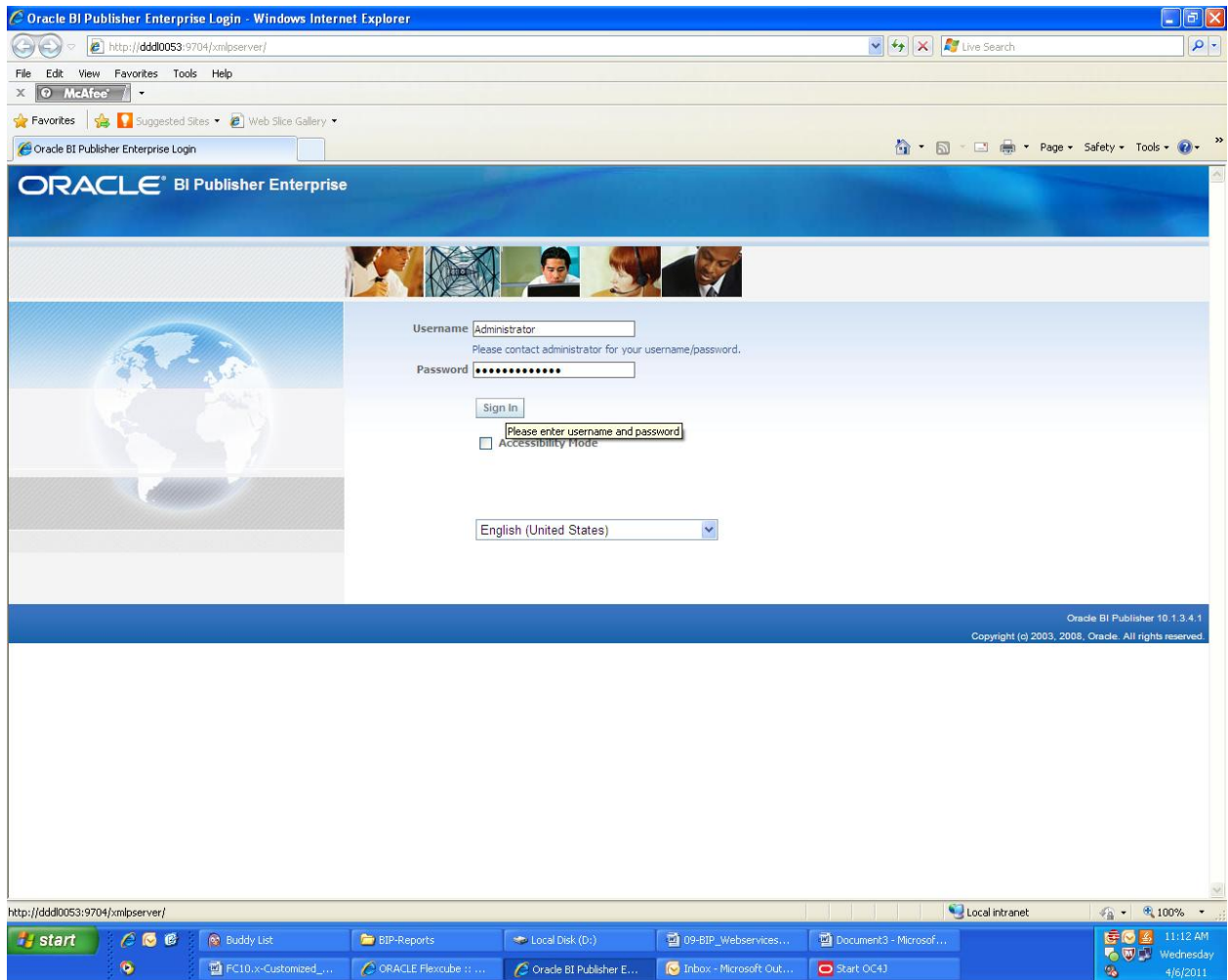
This section describes the steps to create the BIP report.

4.1 Configuring Data Source

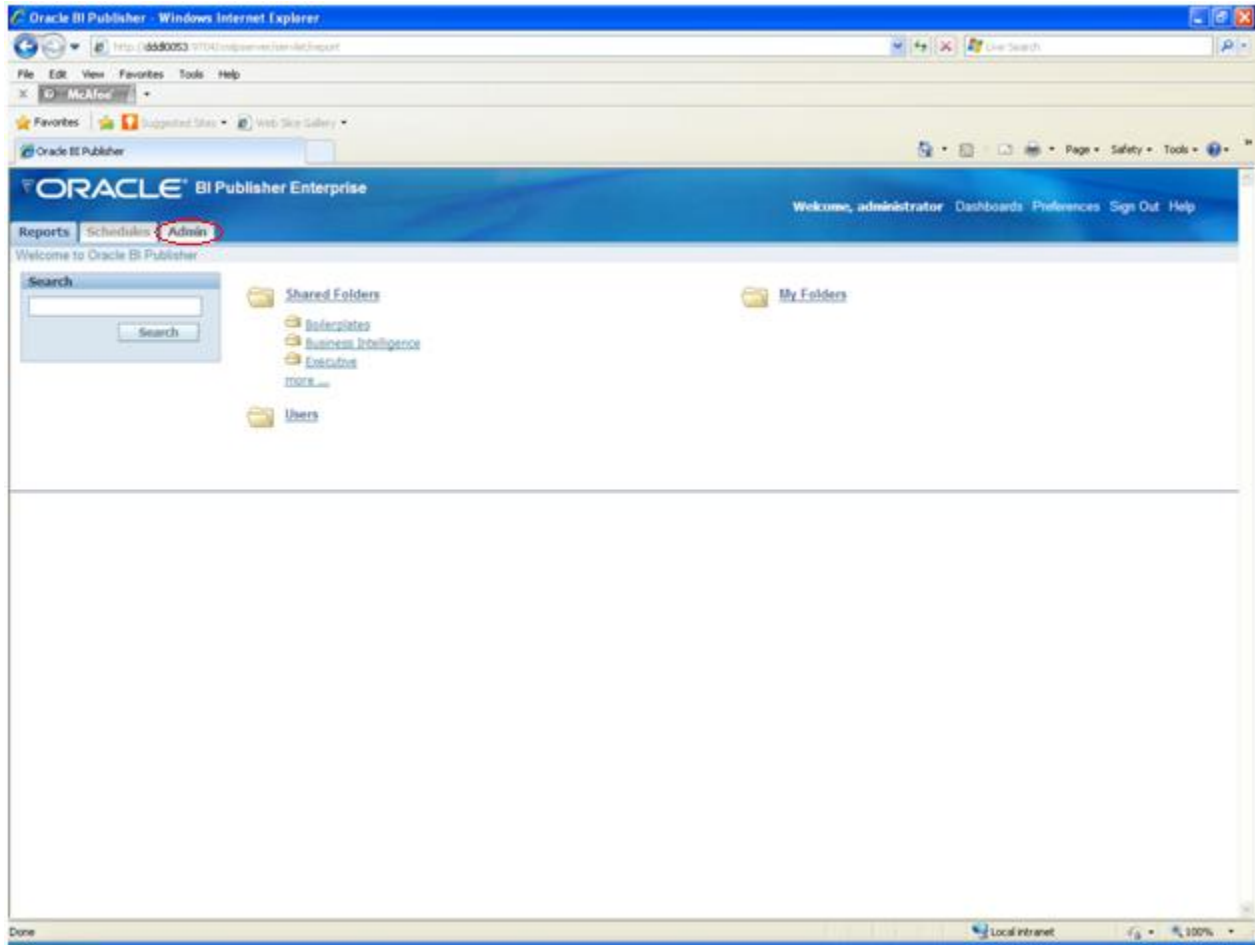
- Open the BI Publisher



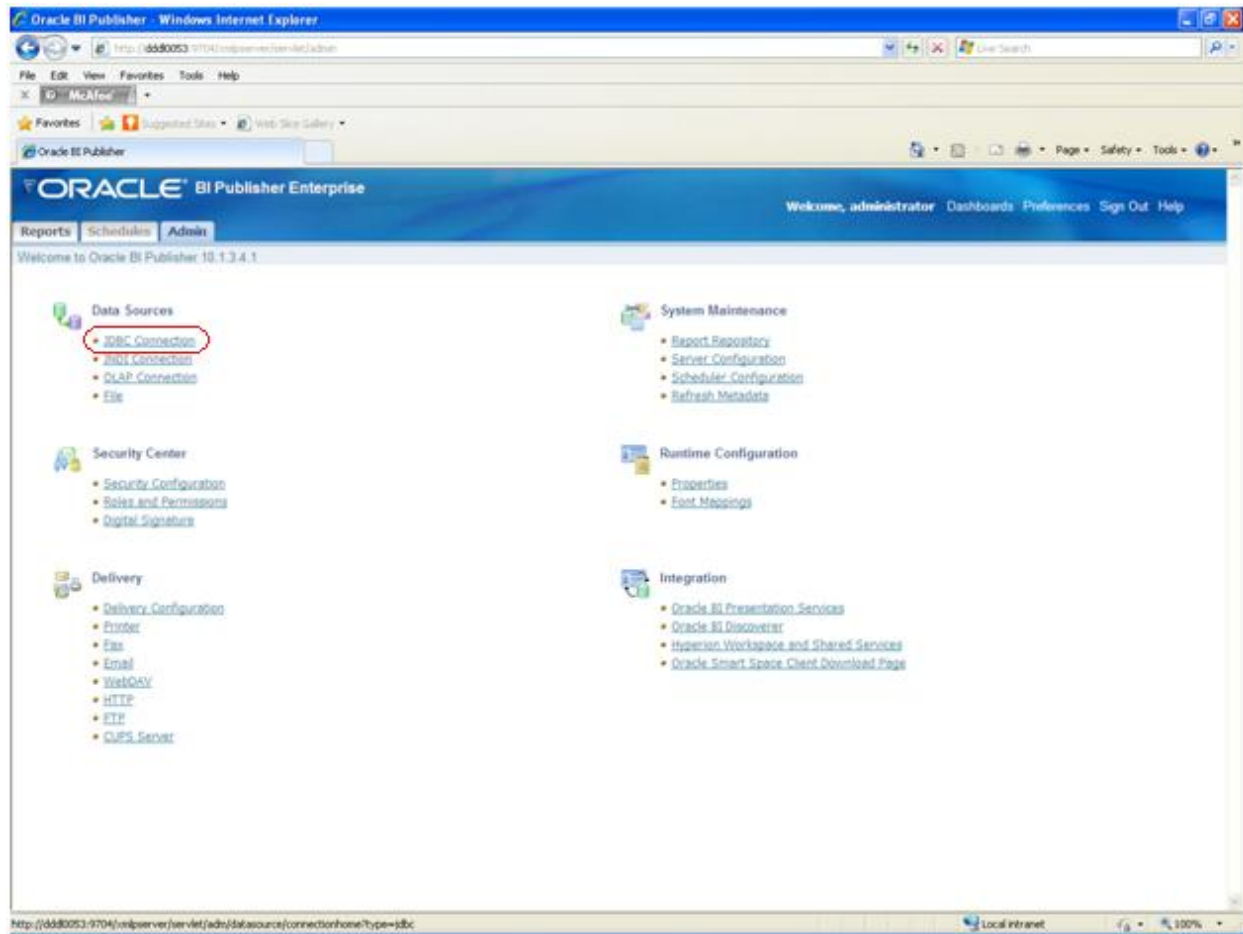
- Login with Administrator user ID and password



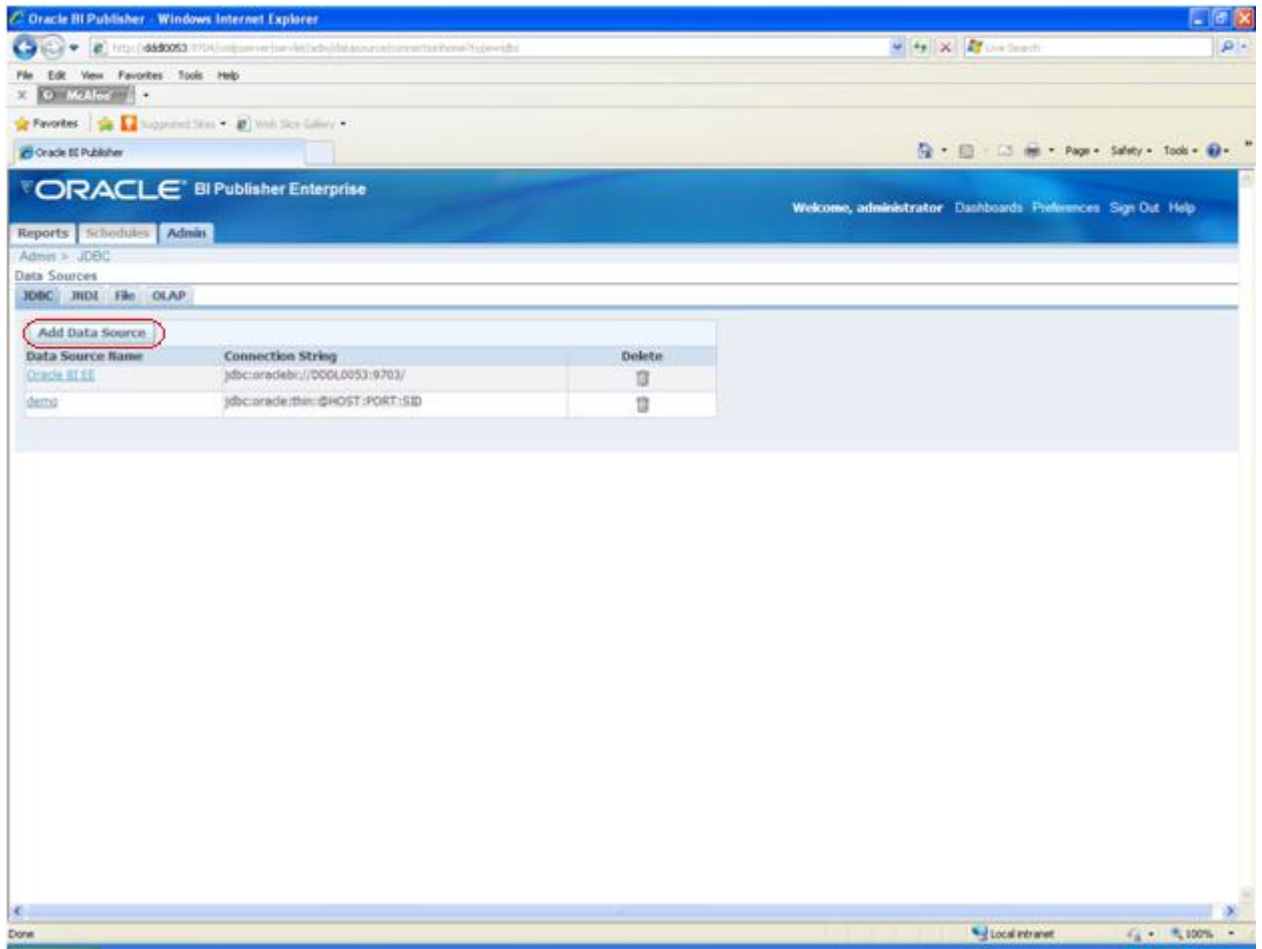
- Select Admin



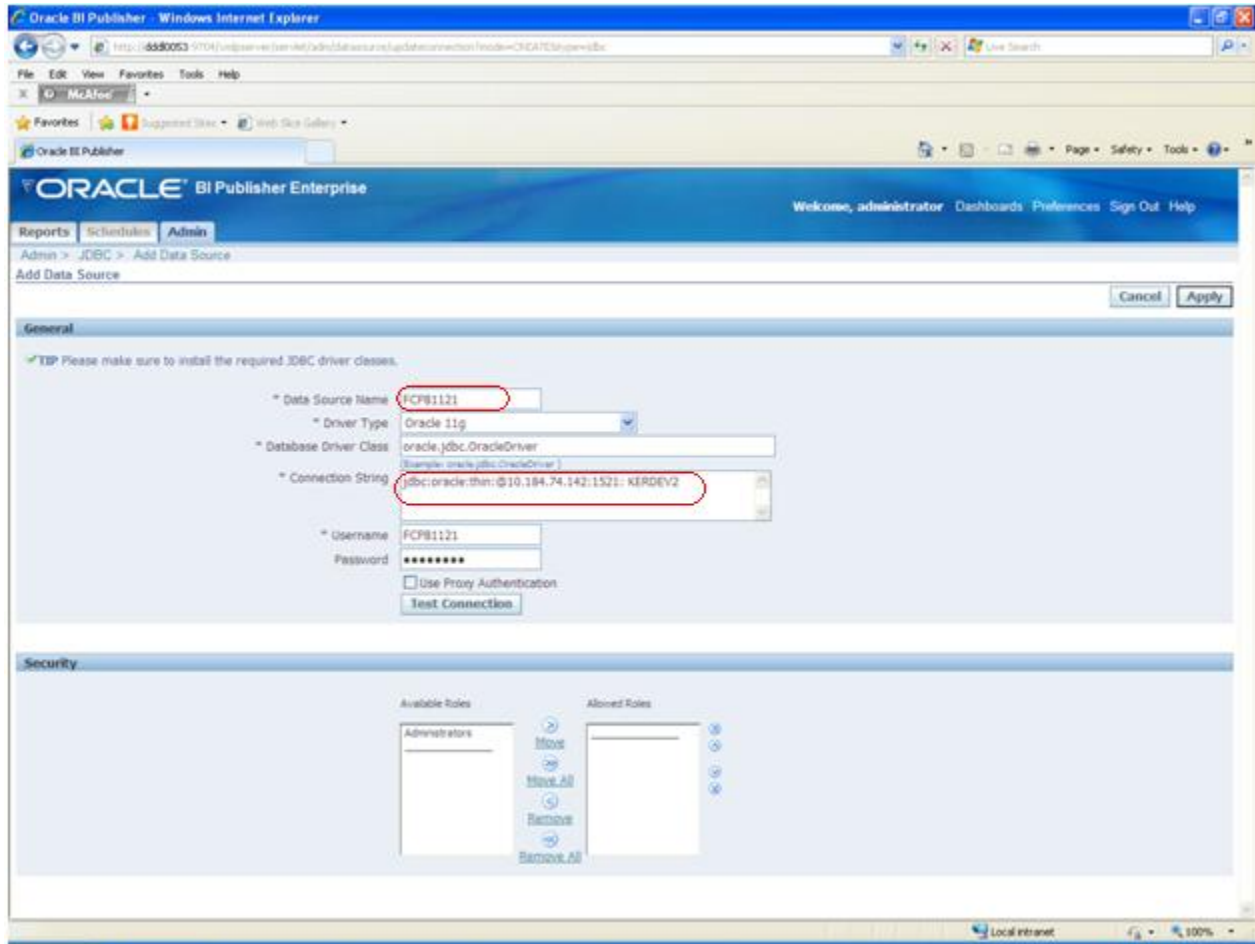
- Select JDBC Connection



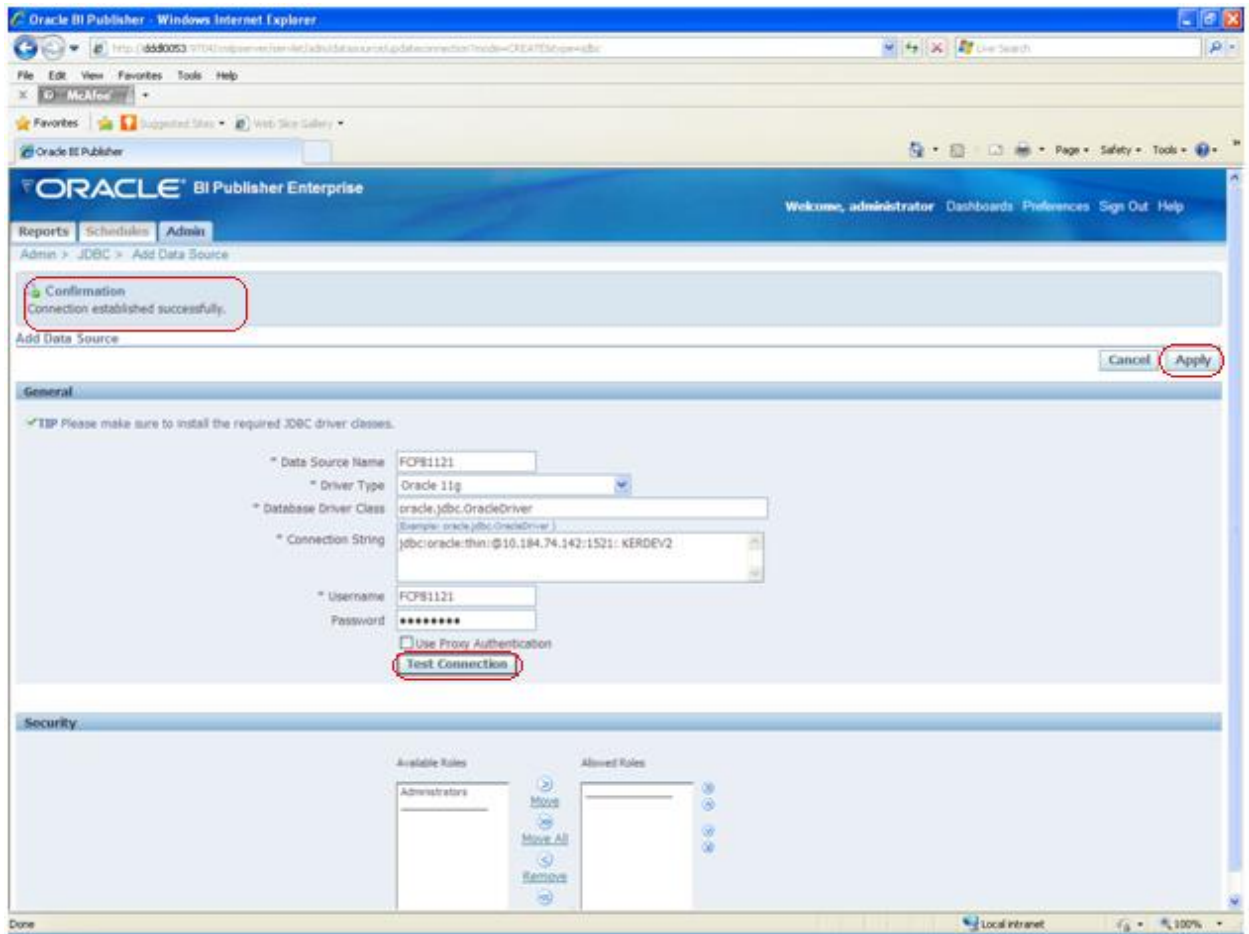
- Select Add Data Source



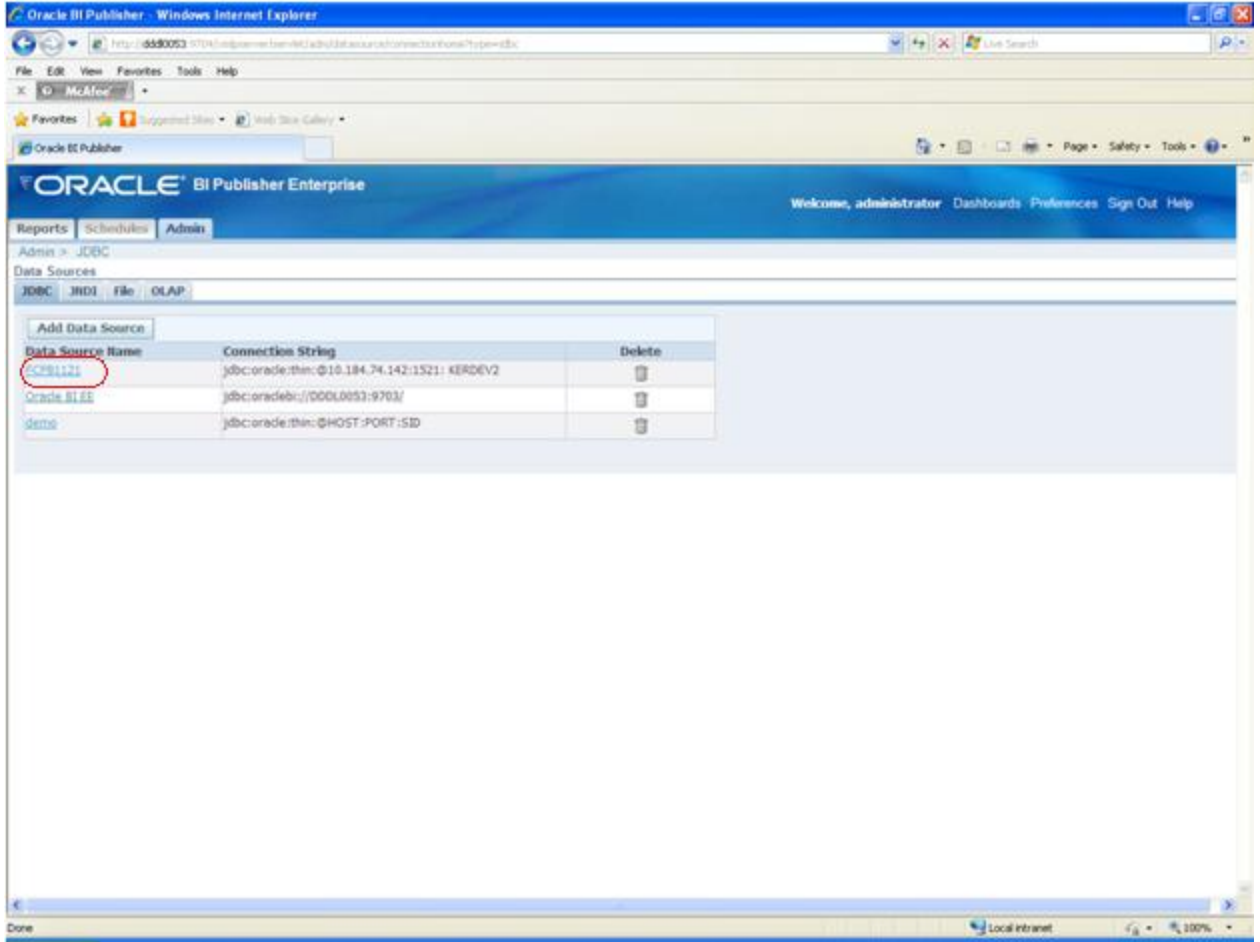
- Provide data source details of Target FLEXCUBE IS environment



- Ensure Test Connection works and select Apply



- The new Data Source created looks like:



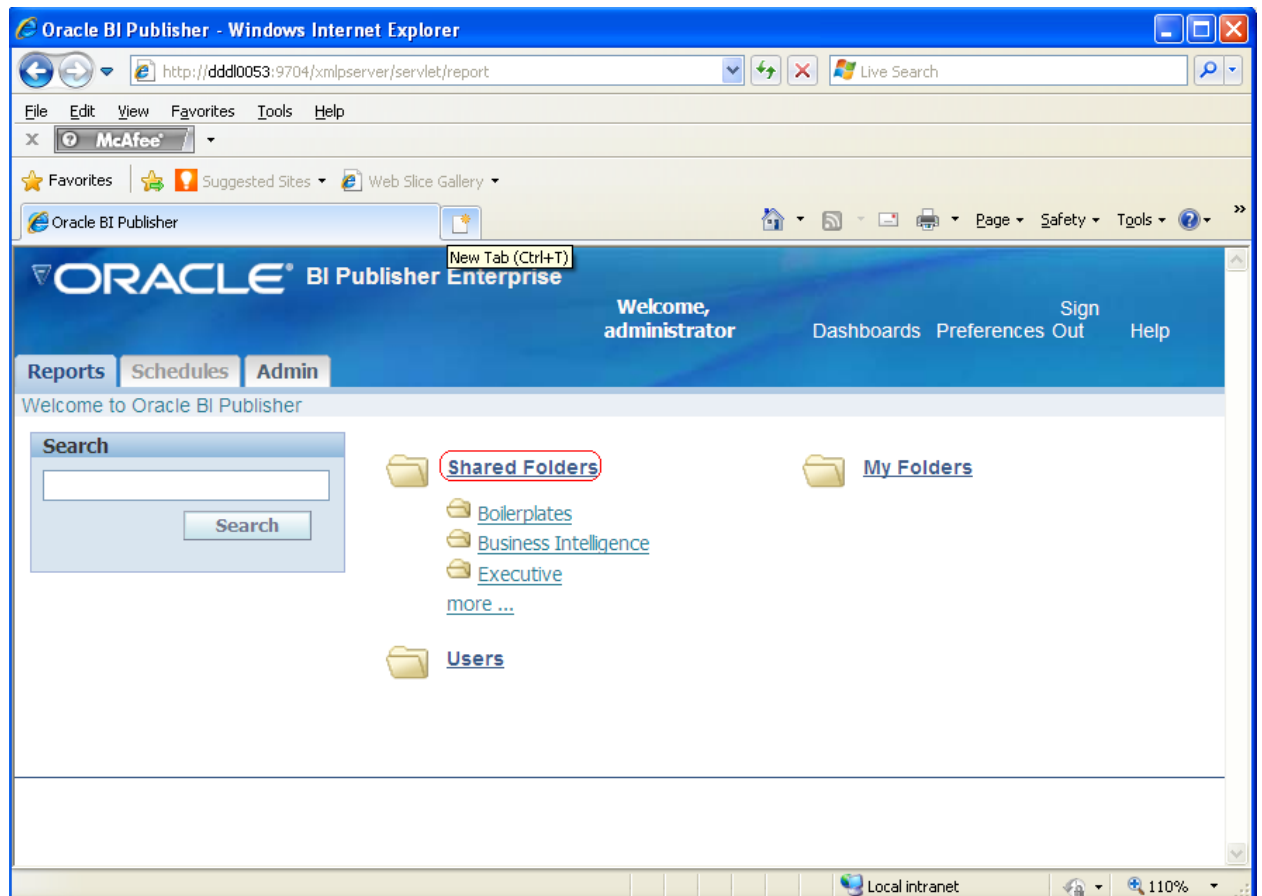
5 Building BIP Report

Creating a new report in BI Publisher Editor consists of the following steps:

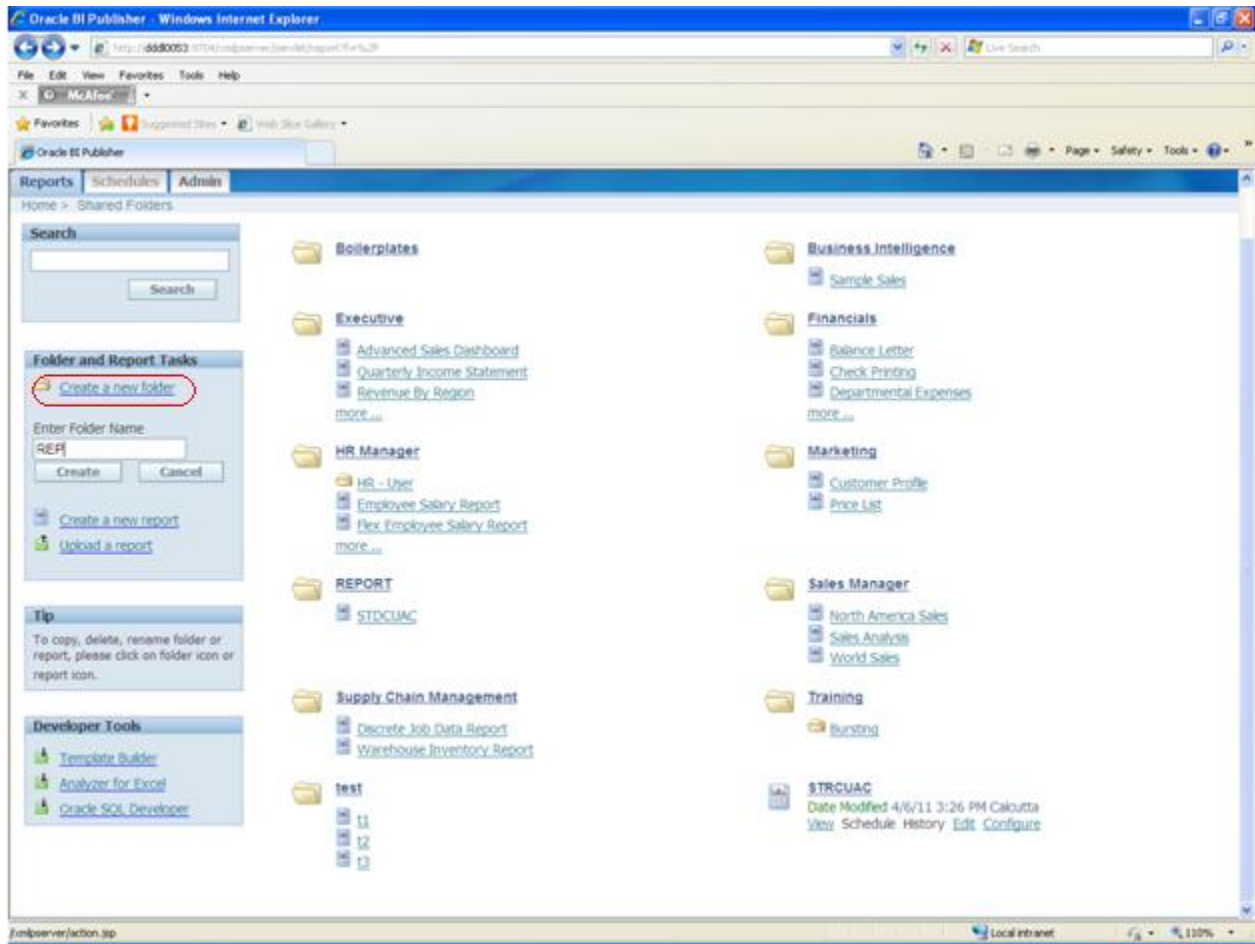
1. Create the report entry in the desired folder on the Reports page.
2. Open the report editor
3. Specify the general properties for the report.
4. Define the Data Model.
5. Define the parameters that you want users to pass to the query
6. Design the Layout template.
7. Uploading the layout template to the report editor.

5.1 Report entry

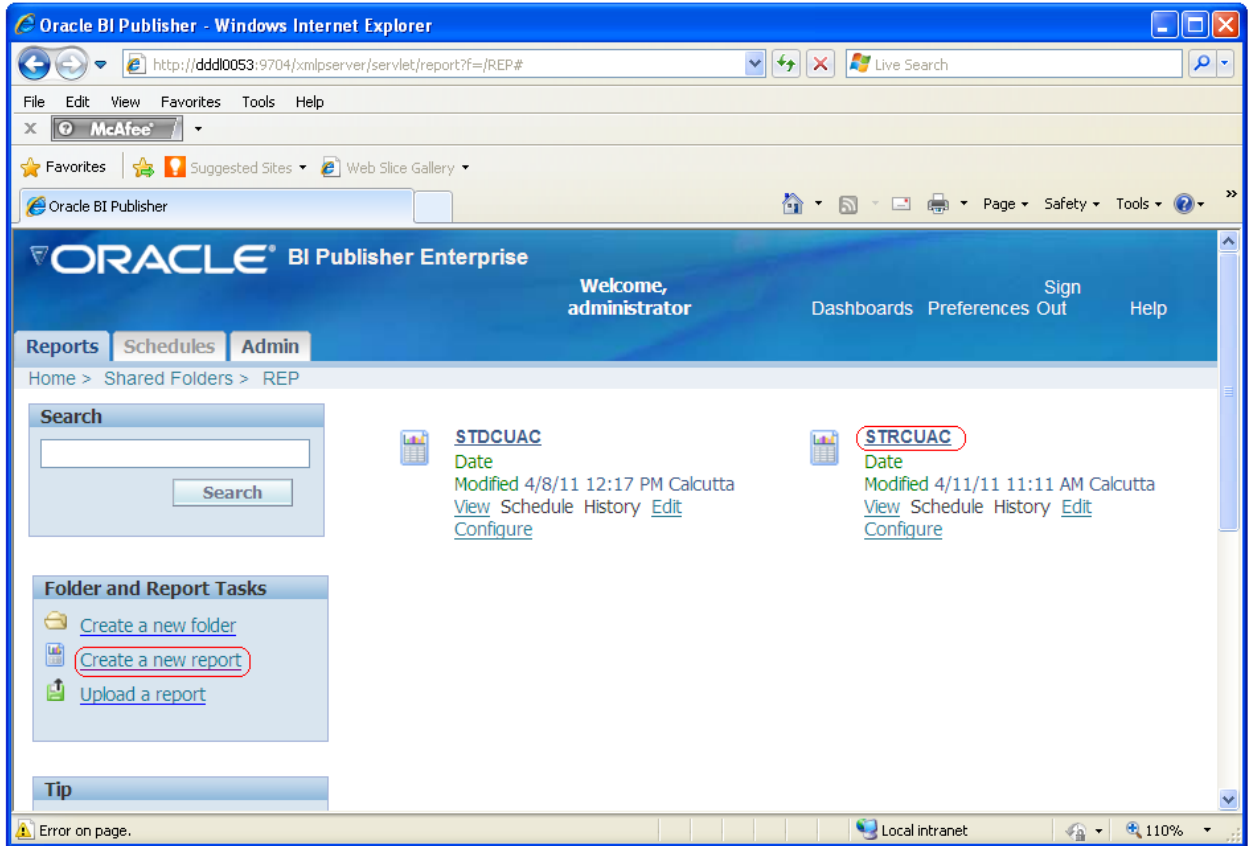
- Select Reports button from below launch page



- Create a new folder (example REP)



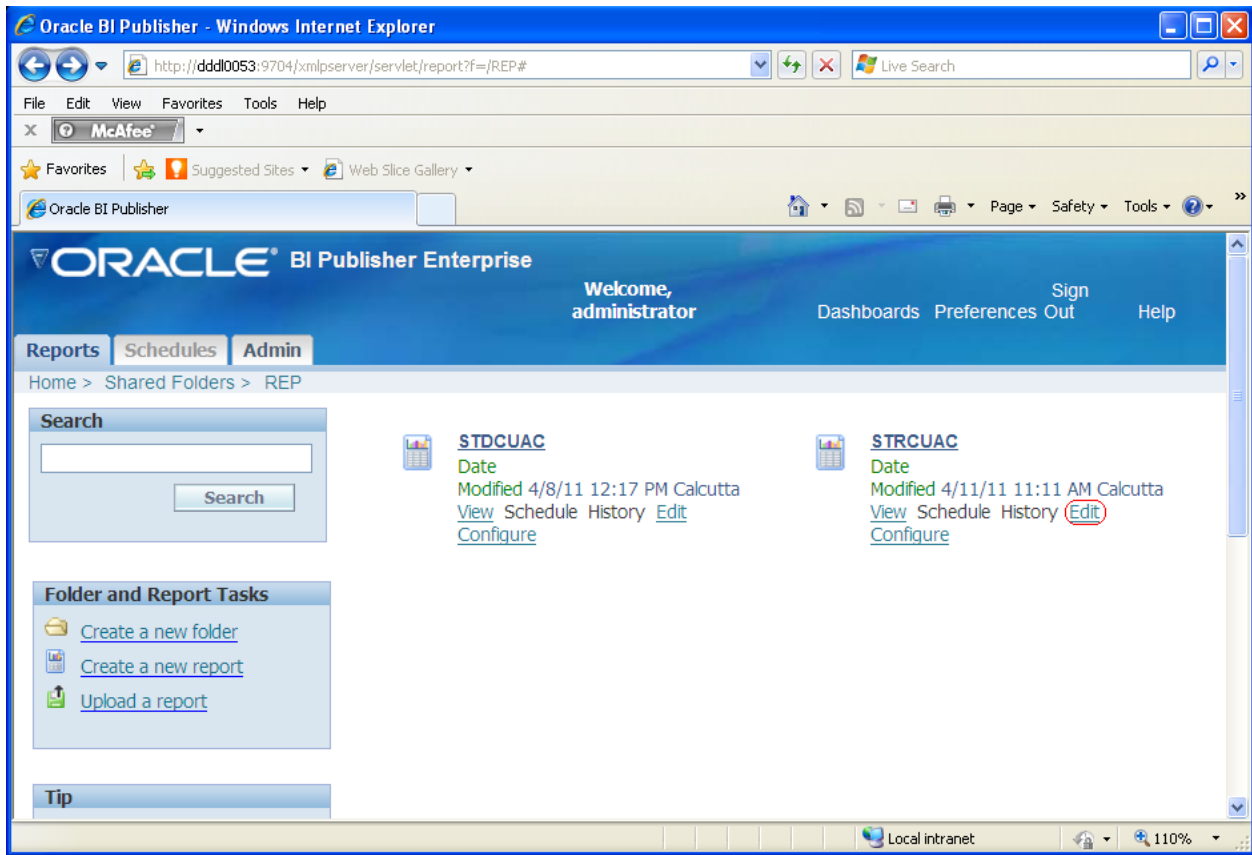
- Select Create a new report



New report entry would be created.

5.2 Open the report editor

- Select the edit link (to invoke the report editor) of the report you have created.



- **Description** - the description will display beneath the report name within the report folder.
- **Default Data Source** - select the data source from the list of values. You may define multiple data sources for your report when you define the Data Model. The Default Data Source you select here will be presented as the default for each new data set you define. Select **Refresh Data Source List** to see any new data sources added since your session was initiated.
- **Parameters per line** - enter the number of parameters that you want to display before creating a second parameter line for the report. The parameter line is displayed in the online report View page and the Schedule page.
- **Run report online** - disable this property if you do not want users to view this report in the online Viewer. When disabled, users will be able to Schedule the report only. For most reports you will keep this enabled. Disable it for long-running, batch, or other reports for which online viewing is not appropriate.
- **Show controls** - enable this property to display the control region of the report. Control region consists of the Template list, Output list, and Parameter lists.
- **Show Report Links** - when you view a report in BI Publisher's report viewer, a "Link to this Report" link displays enabling you to copy the URL of the current report. If you do not want to enable users to see and copy the report link, disable this property.
- **Open Links in New Window** - enable this property to open any links contained in the report in a new browser window.
- **Auto Run** - enable this property to automatically run the report when the user selects the report or the View link for the report within the report folder. When Auto Run is not turned on, selecting the report or the View link for the report displays the online Viewer and parameters for the report only. The user must select the View button from the online Viewer to run the report.
- **Enable document cache** - enable this property to cache the report document per user. With document cache enabled, when a user views the report online, the document (data plus layout) will be placed in cache. When the same user uses the online viewer to view the exact same report (same layout, same output type, same parameter selections) the document will be retrieved from cache. The document will remain in cache according to the cache specifications set in the System Maintenance page. See *Setting Cache Specifications, Oracle Business Intelligence Publisher Administrator's and Developer's Guide*. Note that scheduled reports do not use document cache.

Disable Client Access from Analyzer for Excel - this property controls the method by which report data is downloaded to Excel and also impacts

the ability to interact with the BI Publisher server from Microsoft Excel. Turning this property on have the following effects:

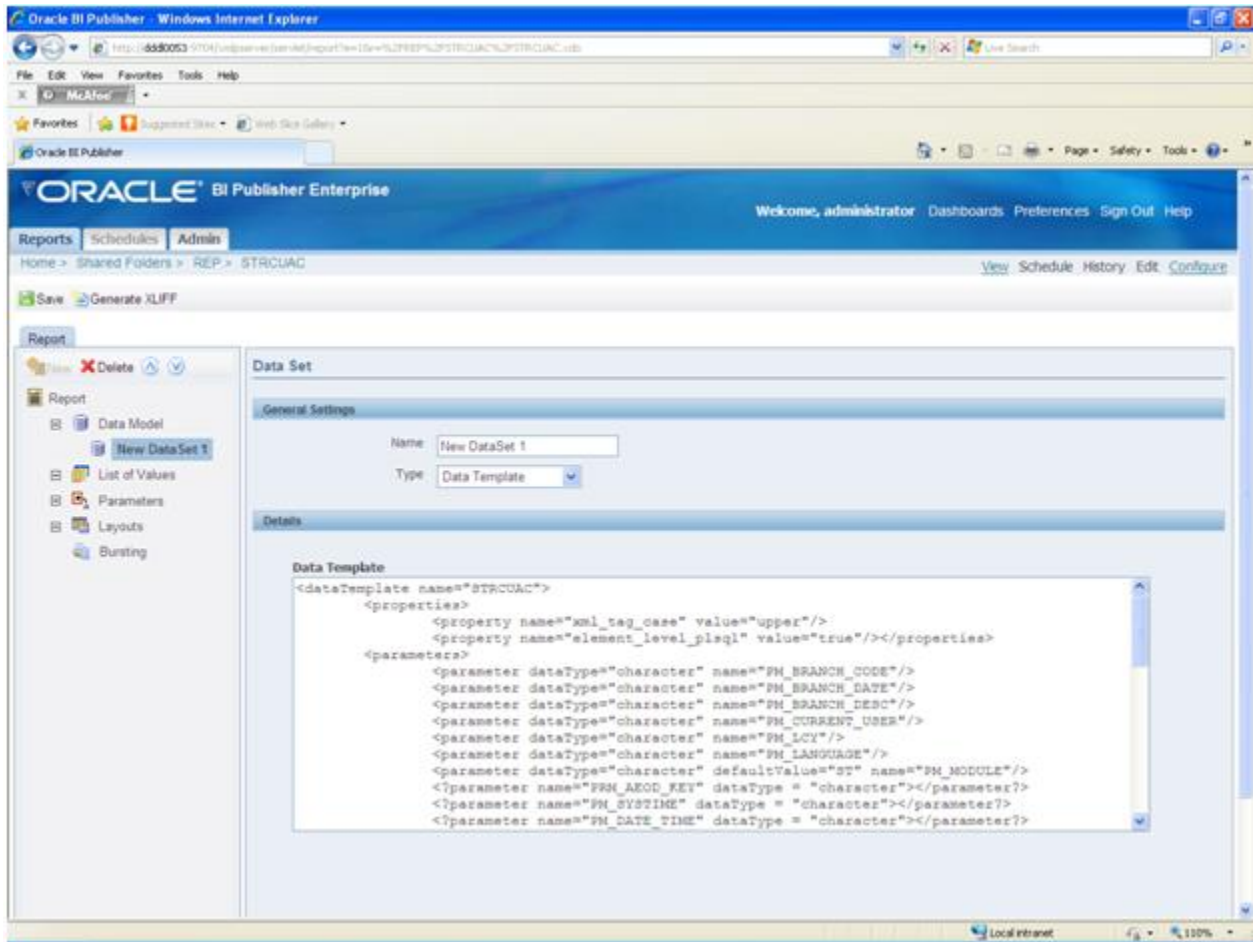
- Your report data downloads faster and large data sets are handled more efficiently
- You do not have to enable macros
- You can enable your own custom macros
- You cannot log in or connect to the BI Publisher server from your Microsoft Excel session. Therefore you cannot upload a template directly from Excel, nor can you update the report parameters or apply a new template.

You would typically consider turning this property on for reports that generate very large data sets that you wish to manipulate in Excel. The following table details the differences when this property is enabled:

<i>Consideration</i>	<i>"Disable Client Access from Analyzer for Excel" property turned on</i>	<i>Native Mode</i>
Performance	Data is downloaded faster to Excel and large data sets are handled more efficiently	Download is slower and very large data sets can impact the functioning of the Add-in
Macros	You do not have to enable macros to use the Excel Analyzer in this mode. You can also create your own custom macros to use with the Excel Analyzer.	You must enable macros to use the Excel Analyzer in this mode. Custom macros are not supported in this mode.
Connection with BI Publisher	No connection after data is downloaded. You cannot upload templates, change parameters, or apply new templates to the data.	You can connect to the BI Publisher server from your Excel session. You can directly upload templates to the report, update the report parameters, and apply new templates from within your Excel session.

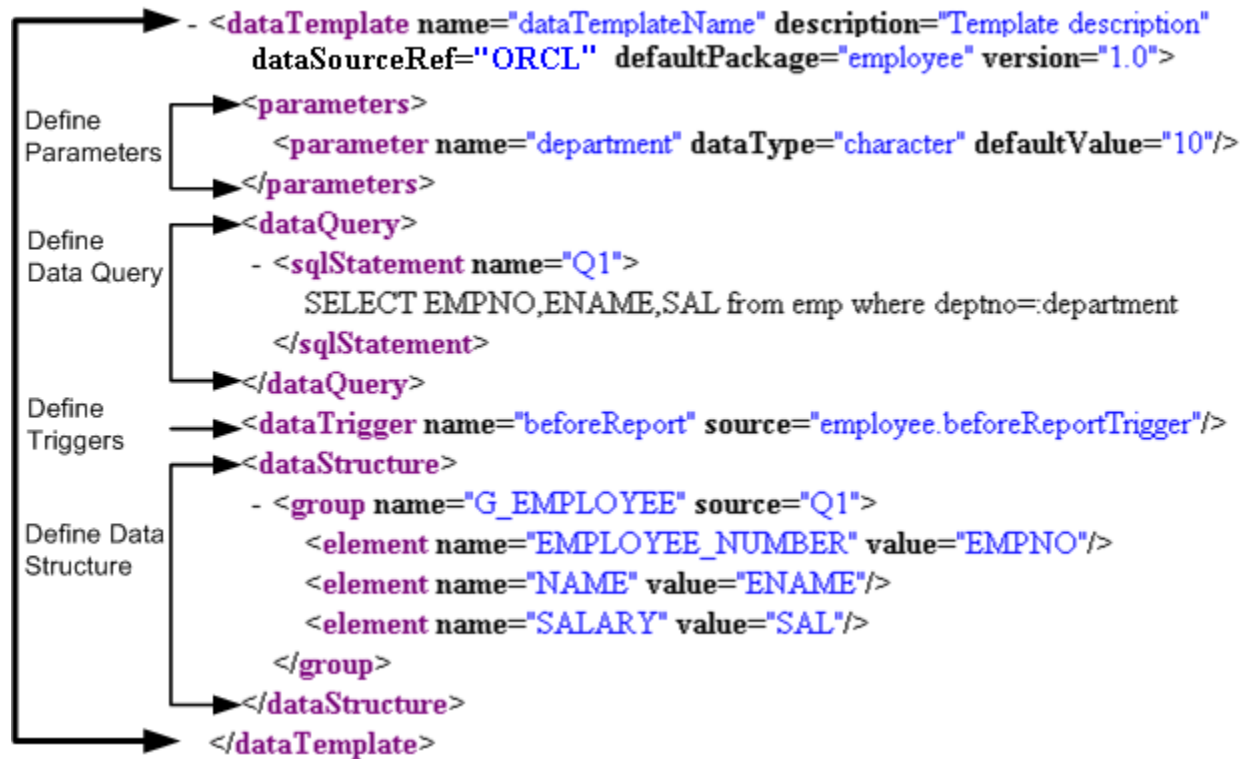
5.4 Define the Data Model

- Select the Data Model from the left menu and click on new
 - Enter the name of the Data Set, select Data Template from Type drop down list.
 - Fill up the Data Template XML details for the report.



About data template

The data template is an XML document that consists of four basic sections: define parameters, define triggers, define data query, and define data structure. This structure is shown in the following graphic:



The data template includes the following information:

- Parameter
 - Parameter defined under the tag `<parameters>`
 - Parameter tag contains all the parameters required for report generation.
 - Parameters in the queries are preceded by a colon (:).

Suppose the parameter name is PM_BRANCH_CODE then the parameter would appear in the query as: PM_BRANCH_CODE.

Note: Prefix PM_ for parameters is FLEXCUBE IS naming convention

- SQL statements
 - `<sqlStatement>` contains all the queries used for the report.
 - All the `<sqlStatement>` must be under parent tag `<dataQuery>`
- Groups
 - Groups should have the tag `<group>`
 - The `<group>` element has a source attribute, which is the query name from where the element of the group to be assigned.
 - The entire `<group>` element must be under tag `<dataStructure>`

- The <dataStructure> element is the section where the structure of the data xml (which is an xml representation of the result returned from the query) is defined.

5.5 Define Parameters

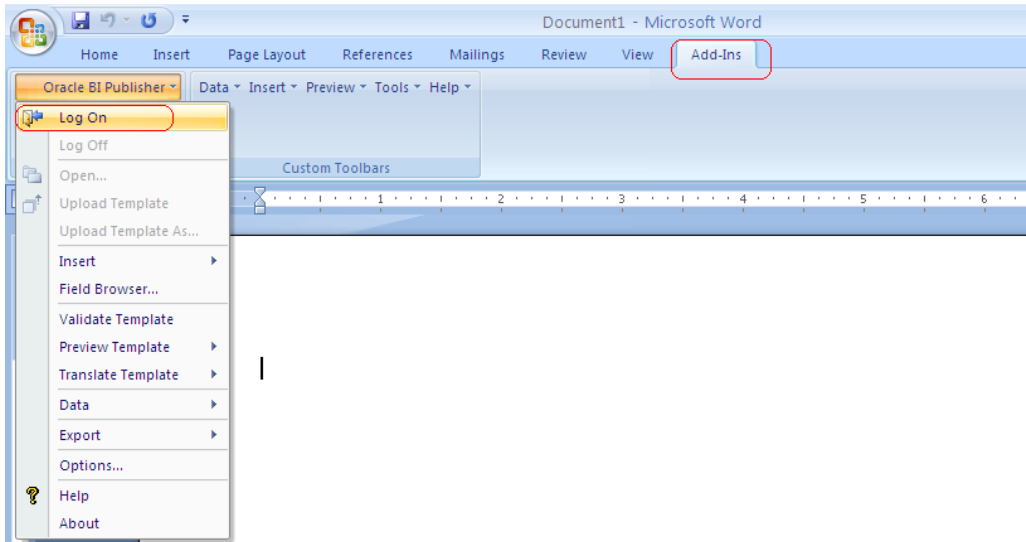
BI Publisher supports the following parameter types:

- **Text** - allows the user to enter a text entry to pass as the parameter.
- **Menu** - allows the user to pass parameters by making selections from a list of values. This option supports multiple selections, a "Select All" option, and partial page refresh for cascading parameters. Define the properties for the list of values in the report definition. A list of values can contain fixed data that you specify or the list can be created via a SQL query executed against any of the defined data sources.
- **Date** - allows the user to enter a date as a parameter. Note that the data type must also be "Date" and the format must be Java date format.
- **Hidden** - enables you to pass the default value always, without allowing the user to see or change it.

Note: The parameter types must match with the parameter type in data template.

To define parameters for the report Select **Parameters** and then select the **New** to define parameters for the report. Enter the Identifier and Data Type, Parameter Type, Default Value (if required) and Display Label.

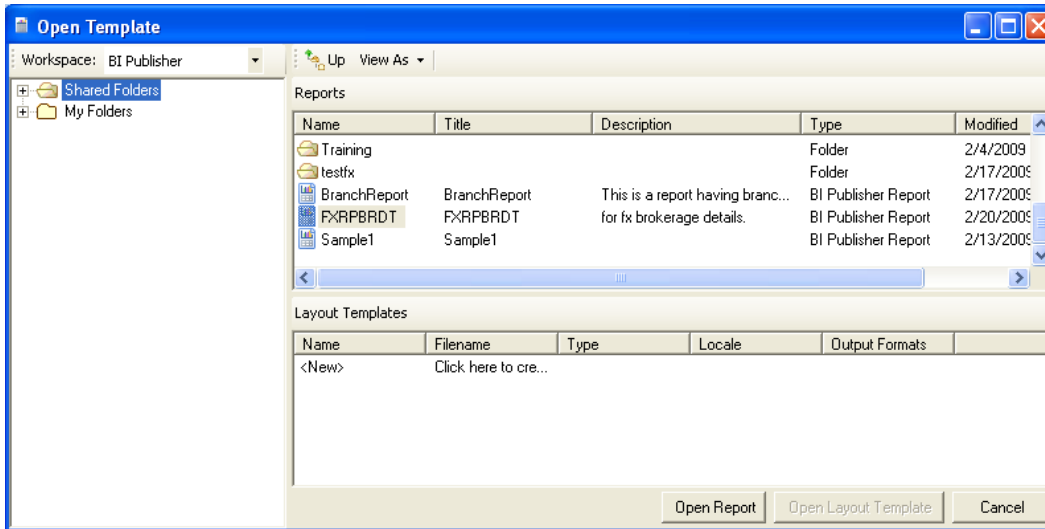
- To create RTF, you need to login to the BI Publisher through MS-Word shown below



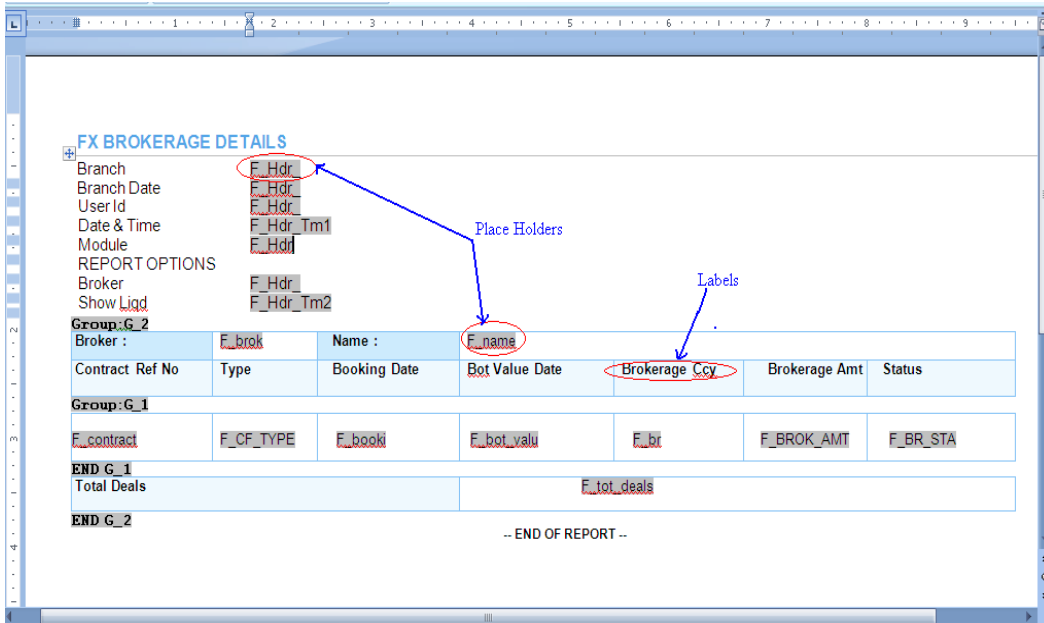
- Select Report server and provide authentication details



- Select the report from Open template screen

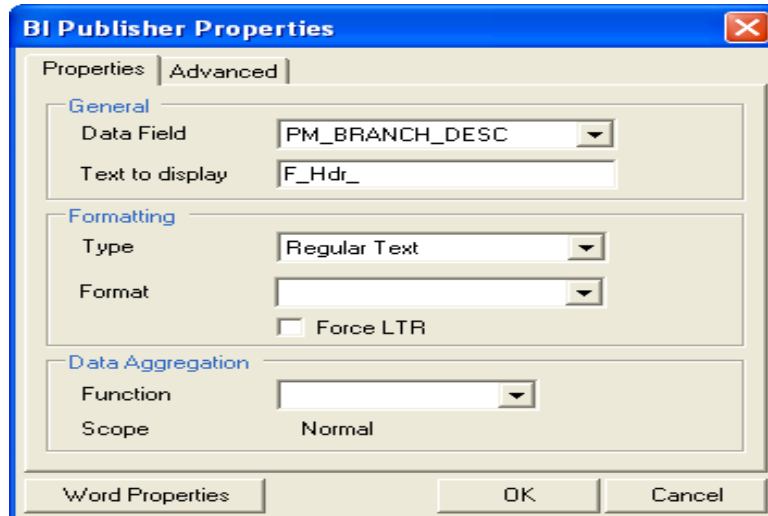


- Design rtf format for the report as required



Place Holders: The placeholder maps the template field to the XML element data field. At runtime the placeholder is replaced by the value of the element of the same name in the XML data file.

On double clicking the place holder, in the properties you can find to which field it is related to



The above figure pops up on double clicking the place holder having label `F_Hdr_` and it holds the value of `PM_BRANCH_DESC`.

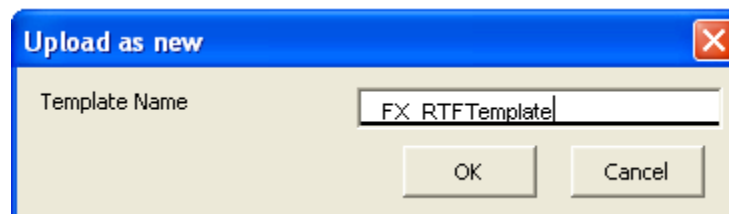
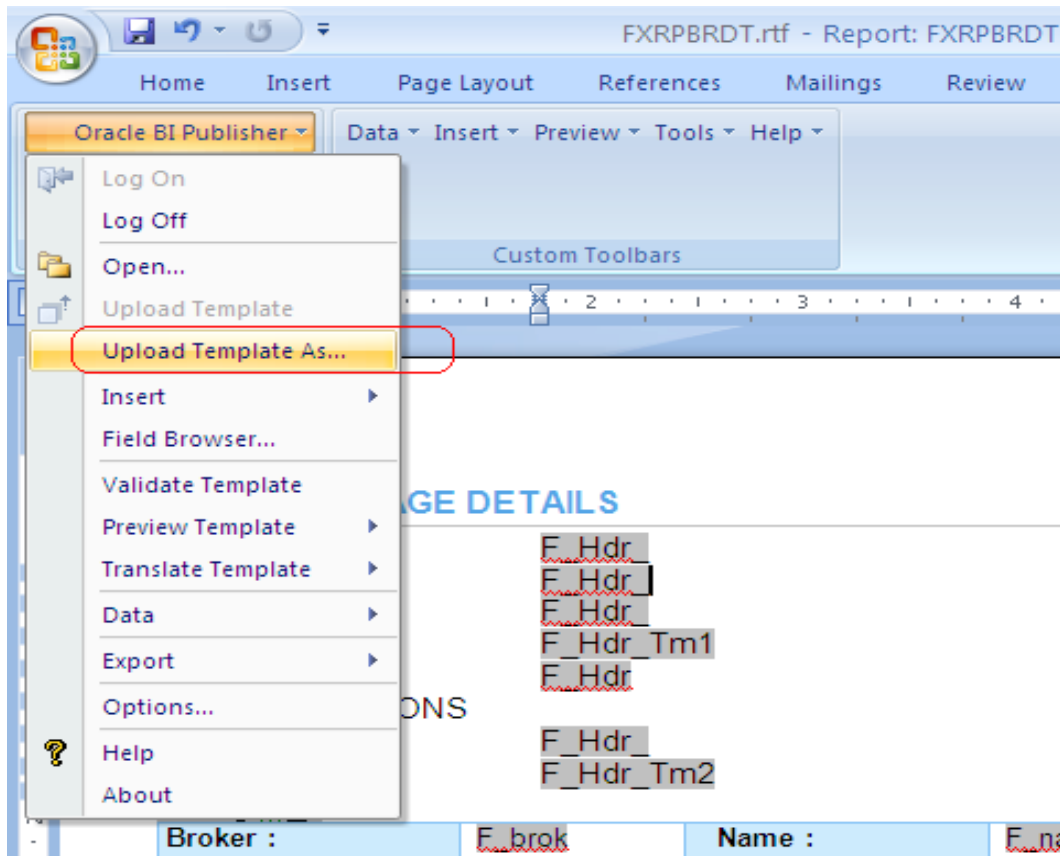
For details on creating RTF template please refer to [Creating an RTF Template](#).

5.7 Uploading the layout template

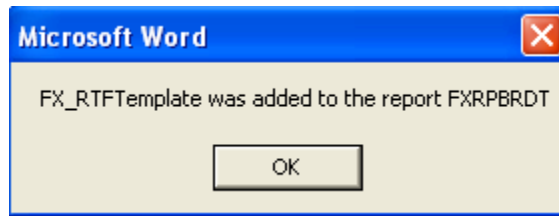
You can upload the template in two ways:

- I. Through MS-Word BI Publisher plug in
- II. Through BI Publisher Editor

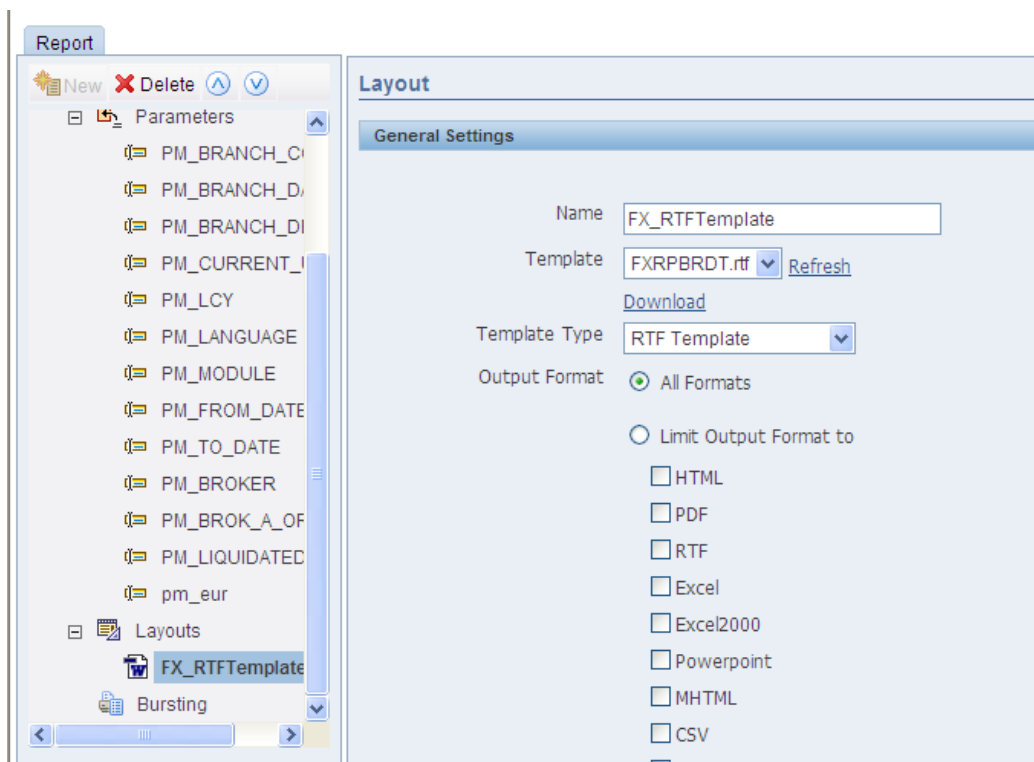
Uploading template through MS-Word: After creating the report template completely save the file with **.rtf** extension in your physical drive and upload the template as shown below



Click ok to get the following window



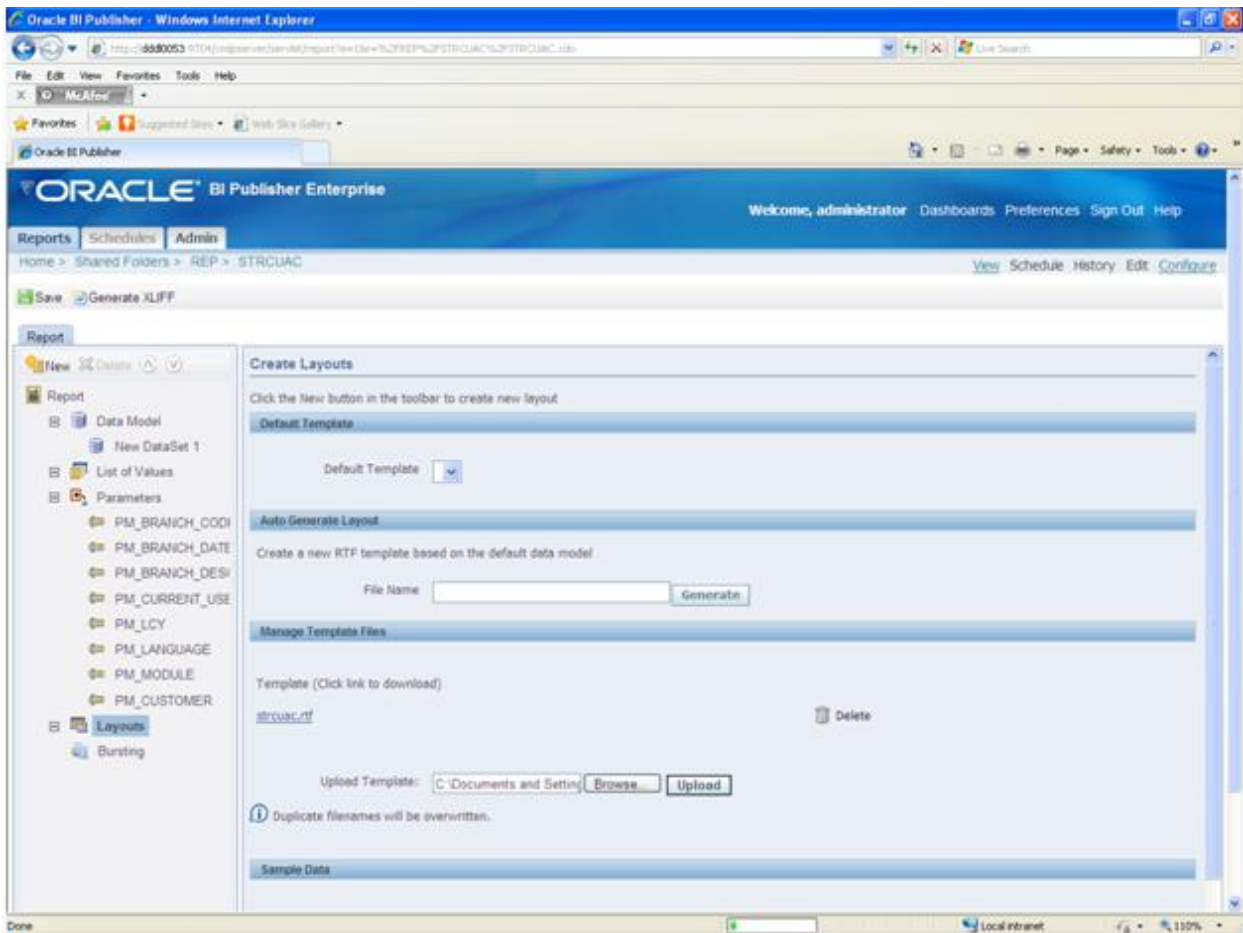
Upon opening the report in report editor you can observe that the layout uploaded as above will be shown.



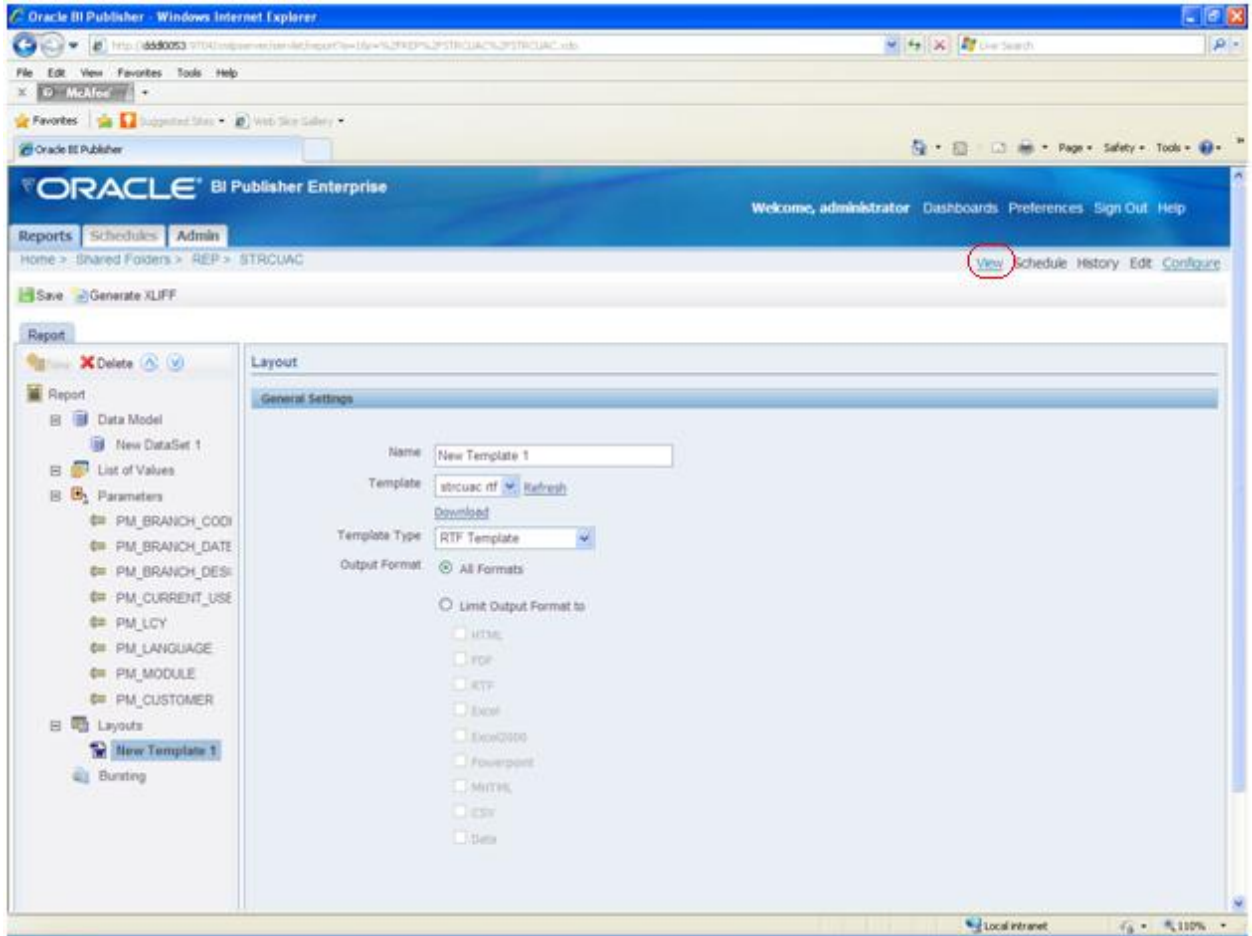
Uploading RTF Template through editor:

Alternatively you can add the layout through the report editor itself. To add a layout to your report definition, select **Layouts** to specify the layout template for the report. Defining layouts consists of two steps: Upload a template file (created through MS-Word), and then assign the template file to a Layout definition.

- Select Layouts and upload the template by browsing and upload button



- After uploading the rtf template select Layouts and then select New from left pane.
- Specify or Change the name of the layout



- Save the report by Clicking save button.

5.8 View report

- To view the report, click on **view** link

The screenshot shows the Oracle BI Publisher interface in a Windows Internet Explorer browser. The browser address bar shows the URL: http://6550053-07042rnpawmwr02R1STRCUCAC25RNCUAC_rds. The page title is "Oracle BI Publisher". The user is logged in as "administrator". The page has tabs for "Reports", "Schedules", and "Admin". The current report is "REP > STRCUCAC". The report parameters are: PM_BRANCH_CODE, PM_BRANCH_DESC, PM_LCY, PM_MODULE ST, PM_BRANCH_DATE, PM_CURRENT_USER, PM_LANGUAGE, and PM_CUSTOMER (111111). The report is displayed in PDF format. The report content includes:

Customer Details

Branch	Branch Date	Page 2
User Id	Date & Time	11-APR-2011 10:13:10
Modul ST	e	

Customer Number

Customer number : 111111

Account Details

Customer Account Number	Available Balance
E0711111101	61987.65

6 BIP Report Specification sheet

This section describes the BIP report specification that are required, prior to report development.

6.1 Folder and report tasks

Specification	Data
Create a new folder	
<i>Enter folder name</i>	
Create a new report	
<i>Enter report name</i>	

6.2 Report

Specification	Data
Report name	
Description	
<i>enter description in text area</i>	
Default data source	
<i>Refresh data source list pick data source from drop down</i>	
Parameters per line:	
<i>Specify parameters per line</i>	
Properties:	
<i>Enable</i> <ul style="list-style-type: none"> ▪ <i>Run report online</i> ▪ <i>Show Controls</i> ▪ <i>Show Report Links</i> ▪ <i>Open Links in New Window</i> ▪ <i>Auto Run</i> ▪ <i>Enable document cache</i> ▪ <i>Disable Client Access from Analyzer for Excel</i> 	

6.3 Data model

Specification	Data
Name <i>Specify the name of data set</i>	
Type <i>Pick</i> <ul style="list-style-type: none"> ▪ SQL query ▪ HTTP(XML feed) ▪ Web service ▪ Data template ▪ Oracle BI answers ▪ Oracle BI discoverer ▪ File ▪ MDX query 	
Details <i>Enter details</i>	

6.4 List of values

Specification	Data
Name <i>Specify the name</i>	
Type <i>Pick</i> <ul style="list-style-type: none"> ▪ SQL Query ▪ Fixed Data 	
Connection <i>For SQL Query-</i> <i>Pick</i> <ul style="list-style-type: none"> ▪ Default data source ▪ Drop down(refresh data source list) ▪ Cache result 	
SQL Query <i>Enter SQL Query</i> <i>Or</i> <i>Use Query Builder</i>	

6.5 Parameters

Repeat the below table for every column under every parameter added

Specification	Data
---------------	------

Identifier <i>Specify identifier name</i>	
Data type <i>Pick</i> <ul style="list-style-type: none"> ▪ <i>String</i> ▪ <i>Integer</i> ▪ <i>Boolean</i> ▪ <i>Date</i> ▪ <i>Float</i> 	
Default value <i>Specify default value</i>	
Parameter type <i>Pick</i> <ul style="list-style-type: none"> ▪ <i>Text</i> ▪ <i>Menu</i> ▪ <i>Date</i> ▪ <i>Hidden</i> ▪ <i>search</i> 	
Display label <i>Specify display label</i>	
Text field size <i>Specify text field size</i>	
Options <i>Checkbox(if required)</i> <ul style="list-style-type: none"> ▪ <i>Text field contains comma-separated values</i> ▪ <i>Refresh other parameters on change</i> 	

6.6 Layouts

Specification	Data
Default Template	
File name <i>Create a new RTF template based on the default data model</i>	



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