



## Oracle APEX - Creating Reports

### Description:

BISP is committed to provide BEST learning material to the beginners and advance learners. In the same series, we have prepared a complete end-to end Hands-on Beginner's Guide for Oracle Application Express. The document focuses on creating different types of Reports. Join our professional training program and learn from experts.

### History:

Version	Description Change	Author	Publish Date
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## Table of Contents

Creating Reports in Oracle Apex Through Application Builder.....	3
Types of Reports Created Through Oracle APEX Application Builder .....	3
Step wise procedure of creating these reports : .....	3
Procedure to create Interactive Report.....	4
Functionality Of Action Button .....	11
Procedure to create Classic Report .....	15
Procedure to create Wizard Report .....	22

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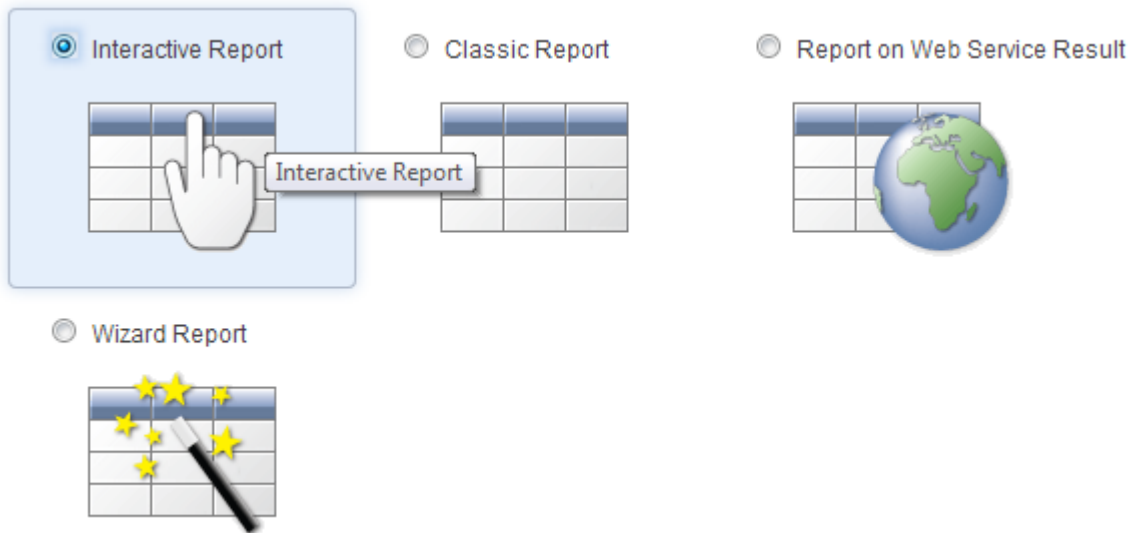
## Creating Reports in Oracle Apex Through Application Builder

**Report :** A document containing information organized in a narrative, graphic, or tabular form, prepared on ad hoc, periodic, recurring, regular, or as required basis. Reports may refer to specific periods, events, occurrences, or subjects, and may be communicated or presented in oral or written form.

### Types of Reports Created Through Oracle APEX Application Builder

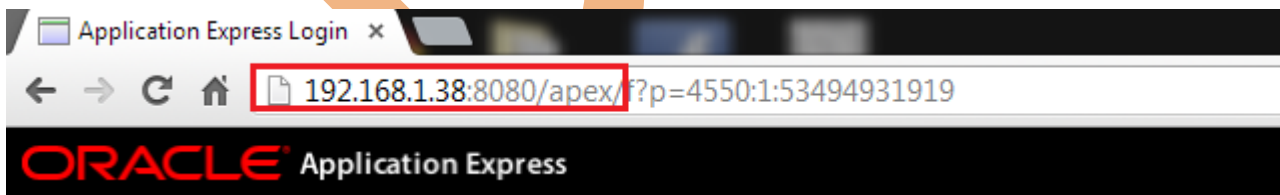
Here Report for Application Builder is mainly classified into following three types & these are :

- Interactive Report
- Classic Report
- Wizard Report



### Step wise procedure of creating these reports :

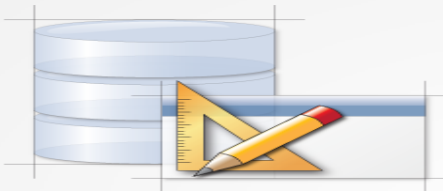
**Step 1:** Open web browser & enter URL " `http://192.168.1.38:8080/apex` " inside address bar & hit Enter key to login into oracle apex developer workspace



**Step 2:** Fill all the required blank field to login into developer workspace

- Workspace = bhel
- username =dev01
- Password =\*\*\*\*\*
- Click on **Login to Application Express**

### Application Express Login



Oracle Application Express is a rapid Web application development tool that lets you share data and create custom applications. Using only a Web browser and limited programming experience, you can develop and deploy powerful applications that are both fast and secure. [Learn how to get started.](#)

**Workspace**  
bhel

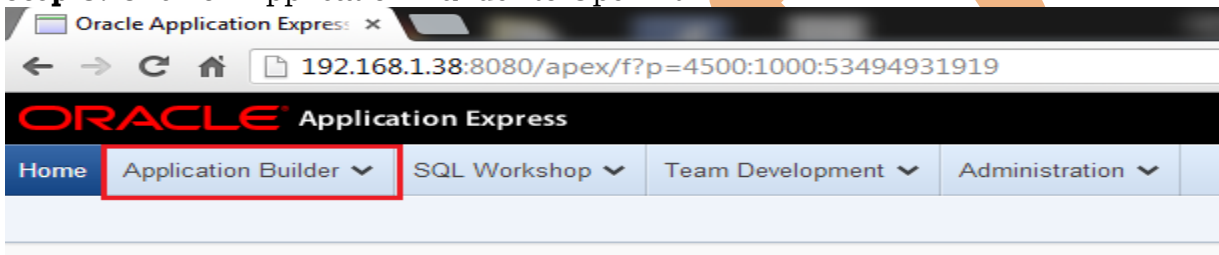
**Username**  
dev01

**Password**  
.....

[Reset Password](#)

**Login to Application Express**

**Step 3:** Click on Application Builder to Open it




## Procedure to create Interactive Report


**Step 4:** Click All Application & then Application known as bisp solutions will appear & hence click on Edit to Create Interactive report.

**All Applications** Database Applications Worksheet Applications Packaged Applications


Q Go [Icons] Actions



**Sample Calendar**  
ID: 100  
Packaged Application  
Run Edit



**Teams & Students**  
ID: 101  
Database Application  
Run Edit



**BISP solutions**  
ID: 105  
Database Application  
Run **Edit**

**Step 5:** Click Create Page

Q Go [Icons] Actions **Create Page >**

Page	Name	Updated	Updated By	Page Type	User Interface	Group	Lock	Run
1	<a href="#">HOME</a>	6 days ago	dev01	Home	Desktop	<a href="#">Unassigned</a>		
2	<a href="#">Student Report</a>	6 days ago	dev01	Report	Desktop	<a href="#">Unassigned</a>		
3	<a href="#">Students Form</a>	6 days ago	dev01	DML Form	Desktop	<a href="#">Unassigned</a>		
101	<a href="#">Login</a>	6 days ago	-	Login	Desktop	<a href="#">Unassigned</a>		

**Step 6:** To create Report place radio button on Report & click Next

Application: 105 - BISP solutions

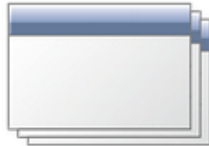
\* User Interface ☒ Desktop

Select a page type:

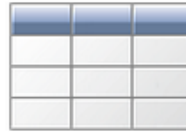
☐ Blank Page



☐ Multiple Blank Pages



☒ Report



☐ Form



**Step 7:** Put radio button on Interactive Report & click to next

Interactive Report ☒ Classic Report ☐ Report on Web Service Result ☐

Wizard Report ☐

**Step 8:** Next page will appear asking for some details such as

- Page Number = 4 (it will provide page number by default but we can also take as per need)
- Page name = Interactive Report
- Region Template = Hide and Show ( we can also choose region template from a list )
- Region Name = Interactive Report ( It is name of Report region for region template )
- Breadcrumb = Breadcrumb (select Breadcrumb option it is used to locate root )

Identify a page number and name. If the page number you specify does not exist, the wizard creates the page for you.

Application: 105 - BISP solutions

\* Page Number

\* Page Name

\* Region Template

\* Region Name

Breadcrumb

- Entry Name = Interactive Report
- Parent Entry = HOME (select Home as Parent Entry )

## Create Breadcrumb Entry

Entry Name

Parent Entry

[No parent breadcrumb entry]

Select Parent Entry:

Name	Page
<u>HOME</u>	1
<u>Student Report</u>	2
<u>Students Form</u>	3

row(s) 1 - 3 of 3

**Step 9:** Click Next to proceed to next step

Next >

**Step 10:** There are three Tab Options so select second Option i.e Use an existing tab set and create a new tab within the existing tab set . Click Next

Next >

Page: 4

Tab Options: ☐ Do not use tabs  
☒ Use an existing tab set and create a new tab within the existing tab set.  
☐ Use an existing tab set and reuse an existing tab within that tab set.

\* Tab Set

\* New Tab Label

> Tabs

**Step 11:** Now to add tables or data from tables into report Click on Query Builder

\* Enter a SQL SELECT statement

**Query Builder**

Link to Single Row View

Uniquely Identify Rows by

Unique Column

**Step 12:** Click On Employees table & select check mark all columns of employees table & also if u want to edit or modify column alias do it & then click to **Run**

ACCOUNT

ACCOUNT1

ACCOUNTS

APEX\$\_ACL

APEX\$\_WS\_FILES

APEX\$\_WS\_HISTORY

APEX\$\_WS\_LINKS

APEX\$\_WS\_NOTES

APEX\$\_WS\_ROWS

APEX\$\_WS\_TAGS

APEX\$\_WS\_WEBPG\_SECTIONS

APEX\$\_WS\_WEBPG\_SECTION\_HI

ATTENDANCES

COUNTRIES

CUSTOMERS

DEPARTMENTS

DIMENSION\_EXCEPTIONS

EBA\_DEMO\_CAL\_PROJECTS

EMPLOYEES

EMP\_DETAILS\_VIEW

EVALUATIONS

EVAL\_ITEMS

EVAL\_ITEM\_SCORES

**EMPLOYEES**

Column	Alias	Object	Condition
EMPLOYEE_ID	EMPLOYEE_ID	EMPLOYEES	
FIRST_NAME	FIRST_NAME	EMPLOYEES	
LAST_NAME	LAST_NAME	EMPLOYEES	

**Step 13:** Click on Results & u can see your selected data for report from employees table .

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
100	Steven	King	SKING	515.123.4567	06/17/2003	24000	-	-	90
101	Neena	Kochhar	NKOCHHAR	515.123.4568	09/21/2005	17000	-	100	90
102	Lex	De Haan	LDEHAAN	515.123.4569	01/13/2001	17000	-	100	90
103	Alexander	Hunold	AHUNOLD	590.423.4567	01/03/2006	9000	-	102	60
104	Bruce	Ernst	BERNST	590.423.4568	05/21/2007	6000	-	103	60
105	David	Austin	DAUSTIN	590.423.4569	06/25/2005	4800	-	103	60

**Step 14:** Again click on SQL & see that we have successfully build sql query Then click on **Return**

Conditions **SQL** Results Saved SQL

```
select EMPLOYEES.EMPLOYEE_ID as EMPLOYEE_ID,  
EMPLOYEES.FIRST_NAME as FIRST_NAME,  
EMPLOYEES.LAST_NAME as LAST_NAME,  
EMPLOYEES.EMAIL as EMAIL,  
EMPLOYEES.PHONE_NUMBER as PHONE_NUMBER,  
EMPLOYEES.HIRE_DATE as HIRE_DATE,  
EMPLOYEES.SALARY as SALARY,  
EMPLOYEES.COMMISSION_PCT as COMMISSION_PCT,  
EMPLOYEES.MANAGER_ID as MANAGER_ID,  
EMPLOYEES.DEPARTMENT_ID as DEPARTMENT_ID,  
EMPLOYEES.JOB_ID_ID as JOB_ID_ID  
from EMPLOYEES EMPLOYEES
```

**Step 15:** Click on Next



Cancel

Next >

\* Enter a SQL SELECT statement

```
select EMPLOYEES.EMPLOYEE_ID as EMPLOYEE_ID,  
EMPLOYEES.FIRST_NAME as FIRST_NAME,  
EMPLOYEES.LAST_NAME as LAST_NAME,  
EMPLOYEES.EMAIL as EMAIL,  
EMPLOYEES.PHONE_NUMBER as PHONE_NUMBER,  
EMPLOYEES.HIRE_DATE as HIRE_DATE,  
EMPLOYEES.SALARY as SALARY,  
EMPLOYEES.COMMISSION_PCT as COMMISSION_PCT,  
EMPLOYEES.MANAGER_ID as MANAGER_ID,  
EMPLOYEES.DEPARTMENT_ID as DEPARTMENT_ID,  
EMPLOYEES.JOB_ID_ID as JOB_ID_ID  
from EMPLOYEES EMPLOYEES
```

Query Builder

Link to Single Row View Yes ▾

Uniquely Identify Rows by ROWID ▾

Unique Column

**Step 16:** Check summary & confirm your selection then click on **Create**

You have requested to create an Interactive Report page with the following attributes. Please confirm your selections.

Application	105
Page	4
Page Name	Interactive Report
Tab Set	TS1
Tab Name	
Tab Label	INTERACTIVE REPORT
Region Title	Interactive Report
Region Template	Hide and Show Region

**Step 17:** The interactive Report Page has been created successfully Click on **Run Page** button .



[Edit Page](#)[Run Page](#)

The Interactive Report page has been created successfully.

**Step 18:** Login into Application by using following credential

- username = dev01
- Password = \*\*\*\*\*
- click on Login

Login

Username dev01

Password \*\*\*\*\*

Login

**Step 19:** Observe Interactive report has been created with tab as shown in snapshot .

Since we have selected Report region template as Hide & show type therefore to view report click on Interactive Report

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Welcome: DEV01 Logout

HOME

INTERACTIVE REPORT

HOME > Interactive Report

Interactive Report

**Step 20:** So take a look of Interactive Report which has various functionality to view & to sort data

So Interactive report has **search option** & **Action Button** to perform various functionality So Click on Action Drop down Menu .

BISP solutions Welcome: DEV01 Logout

HOME INTERACTIVE REPORT

HOME > Interactive Report

Interactive Report

Q- Go Actions

Employee Id	First Name	Last Name	Email	Phone Number	Hire Date	Salary	Commission Pct	Manager Id	Department Id	Job Id Id
100	Steven	King	SKING	515.123.4567	17-JUN-03	24000	-	-	90	4
101	Neena	Kochhar	NKOCHHAR	515.123.4568	21-SEP-05	17000	-	100	90	5
102	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-01	17000	-	100	90	5
103	Alexander	Hunold	AHUNOLD	590.423.4567	03-JAN-06	9000	-	102	60	9
104	Bruce	Ernst	BERNST	590.423.4568	21-MAY-07	6000	-	103	60	9
105	David	Austin	DAUSTIN	590.423.4569	25-JUN-05	4800	-	103	60	9
106	Valli	Pataballa	VPATABAL	590.423.4560	05-FEB-06	4800	-	103	60	9
107	Diana	Lorentz	DLORENTZ	590.423.5567	07-FEB-07	4200	-	103	60	9
108	Nancy	Greenberg	NGREENBE	515.124.4569	17-AUG-02	12008	-	101	100	7
109	Daniel	Faviet	DFAVIET	515.124.4169	16-AUG-02	9000	-	108	100	6
110	John	Chen	JCHEN	515.124.4269	28-SEP-05	8200	-	108	100	6
111	Ismail	Sciarra	ISCIARRA	515.124.4369	30-SEP-05	7700	-	108	100	6

Home Application 105 Edit Page 4 Create Session Caching View Debug Debug Show Grid Show Edit Links

**Step 21:** Click on Actions

Go Actions

Last Name

King

Kochhar

De Haan

Hunold

Ernst

Austin

Pataballa

Lorentz

Greenberg

Faviet

Hire Date

Salary

Commis

17-JUN-03

24000

21-SEP-05

17000

16-AUG-02

9000

Select Columns

Filter

Rows Per Page

Format

Flashback

Save Report

Reset

Help

Download

Sort

Control Break

Highlight

Compute

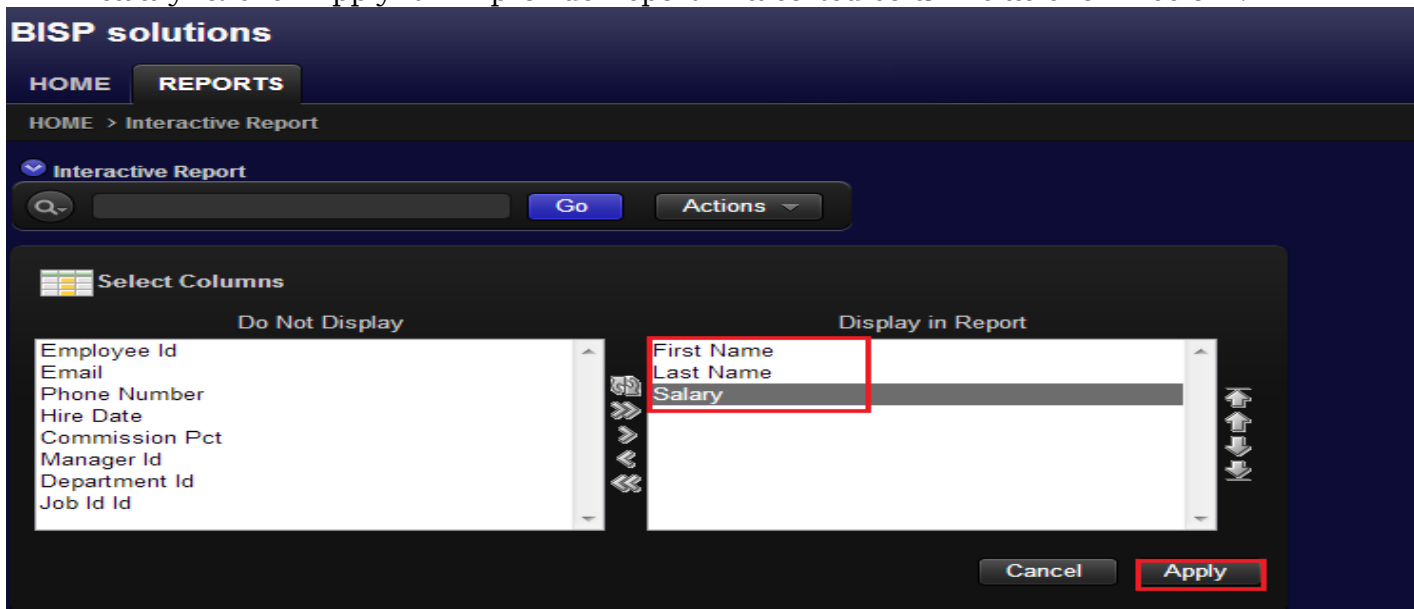
Aggregate

Chart

Group By

## Functionality Of Action Button

- ❖ **Select Columns** : Click on Select Columns & select Columns like First name , Last name & salary & click Apply it will provide Report in a sorted columns as shown below :

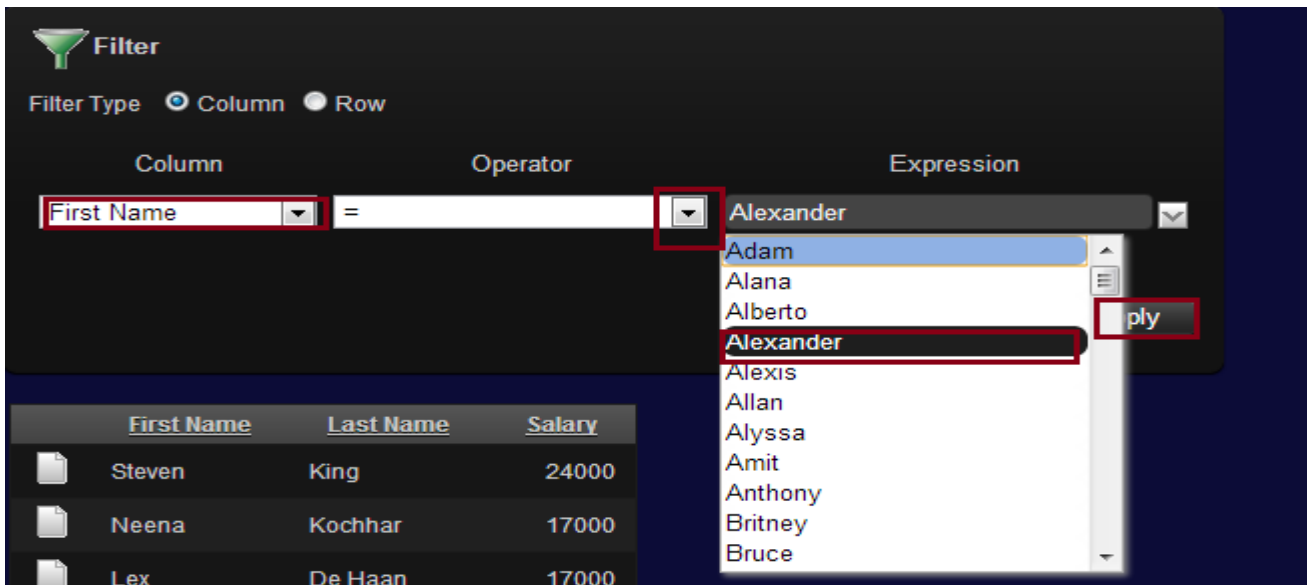


Interactive Report

Q- [ ] Go Actions

	First Name	Last Name	Salary
	Steven	King	24000
	Neena	Kochhar	17000
	Lex	De Haan	17000
	Alexander	Hunold	9000
	Bruce	Ernst	6000
	David	Austin	4800
	Valli	Pataballa	4800
	Diana	Lorentz	4200

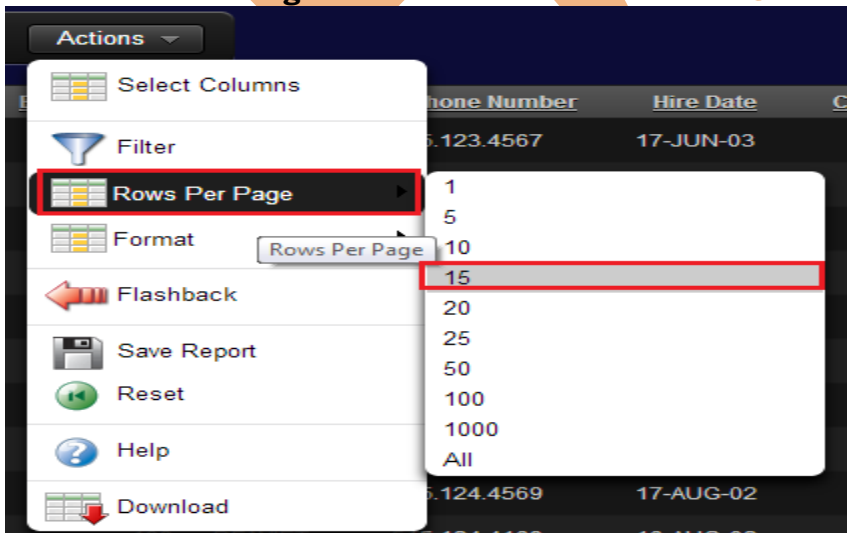
- ❖ **Filter** : This Action is used to filter Report data either column wise or row wise  
Click on Actions ---> Filter  
Choose Filter Type as Column or Row , For Example choose Column Type  
So Filter detail of Alexander from report by Writing " First name = Alexander  
then click on Apply



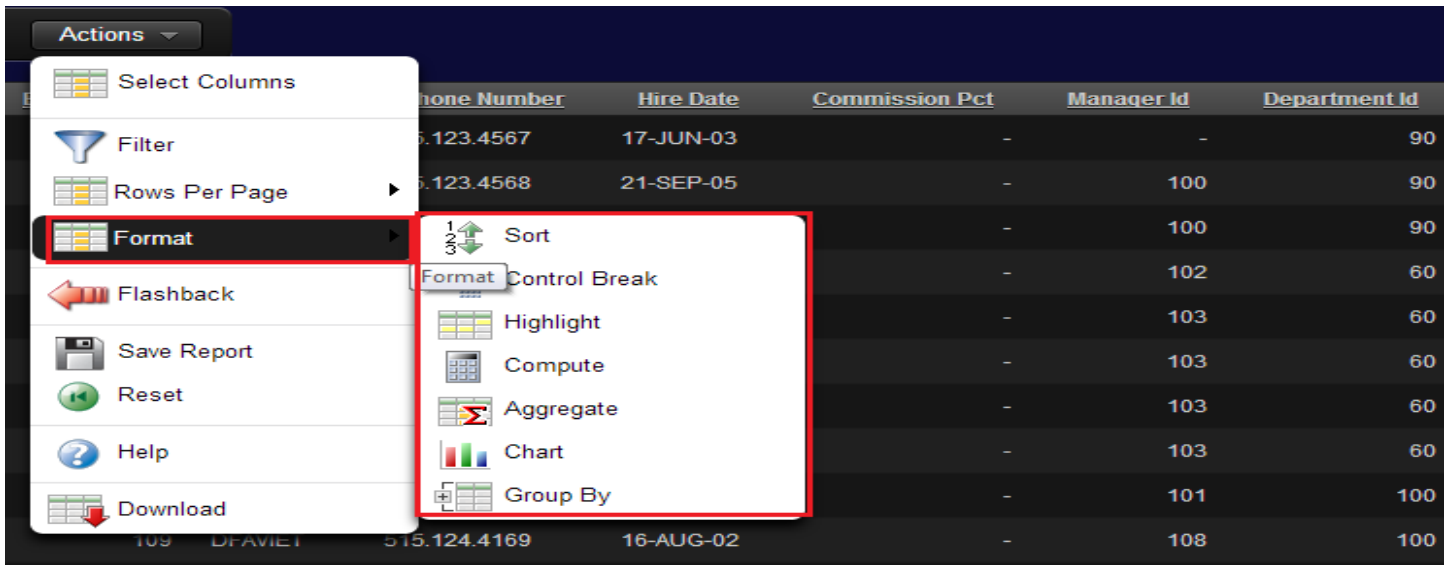
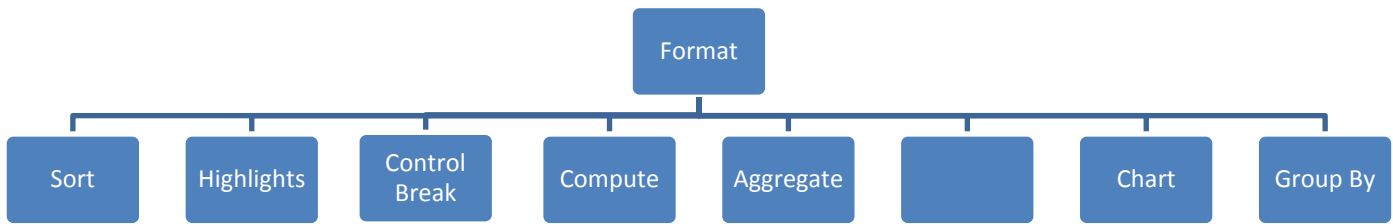
Now Observe Filtered data



❖ **Rows Per Page** : This action is used to select number of rows to display on report page



❖ **Format** : This Format Action does following tasks:



1. **Sort:** Sort data either in Ascending or Descending order & also either Null always last or first
2. **Control Break :** Control Break is mostly used to break entire table into desired groups as shown below :

Salary : 2100									
First Name	Last Name	Employee Id	Email	Phone Number	Hire Date	Commission Pct	Manager Id	Department Id	Job Id
TJ	Olson	132	TJOLSON	650.124.8234	10-APR-07	-	121	50	18
Salary : 2200									
First Name	Last Name	Employee Id	Email	Phone Number	Hire Date	Commission Pct	Manager Id	Department Id	Job Id
Hazel	Philtanker	136	HPHILTAN	650.127.1634	06-FEB-08	-	122	50	18
Steven	Markle	128	SMARKLE	650.124.1434	08-MAR-08	-	120	50	18
Salary : 2400									
First Name	Last Name	Employee Id	Email	Phone Number	Hire Date	Commission Pct	Manager Id	Department Id	Job Id
James	Landry	127	JLANDRY	650.124.1334	14-JAN-07	-	120	50	18
Ki	Gee	135	KGEE	650.127.1734	12-DEC-07	-	122	50	18
Salary : 2500									
First Name	Last Name	Employee Id	Email	Phone Number	Hire Date	Commission Pct	Manager Id	Department Id	Job Id
James	Marlow	131	JAMLOW	650.124.7234	16-FEB-05	-	121	50	18
Joshua	Patel	140	JPATEL	650.121.1834	06-APR-06	-	123	50	18
Karen	Colmenares	119	KCOLMENA	515.127.4566	10-AUG-07	-	114	30	13

3. **Highlights:** It is used to perform highlighting rows or cells by using particular condition or logic as shown below in snapshot .

First Name	Last Name	Salary	Employee Id	Email	Phone Number	Hire Date	Commission Pct	Manager Id	Department Id	Job Id
John	Seo	2700	139	JSEO	650.121.2019	12-FEB-06	-	123	50	18
John	Russell	14000	145	JRUSSEL	011.44.1344.429268	01-OCT-04	.4	100	80	15
Jonathon	Taylor	8600	176	JTAYLOR	011.44.1644.429265	24-MAR-06	.2	149	80	16
Jose Manuel	Urman	7800	112	JMURMAN	515.124.4469	07-MAR-06	-	108	100	6
Joshua	Patel	2500	140	JPATEL	650.121.1834	06-APR-06	-	123	50	18
Julia	Nayer	3200	125	JNAYER	650.124.1214	16-JUL-05	-	120	50	18
Julia	Dellinger	3400	186	JDELLING	650.509.3876	24-JUN-06	-	121	50	17
Karen	Colmenares	2500	119	KCOLIMENA	515.127.4566	10-AUG-07	-	114	30	13
Karen	Partners	13500	146	KPARTNER	011.44.1344.467268	05-JAN-05	.3	100	80	15
Kelly	Chung	3800	188	KCHUNG	650.505.1876	14-JUN-05	-	122	50	17

**4. Compute :** It is used to perform calculations.

**5. Aggregate :** It is used to perform operations such as sum , average, count , count distinct, minimum, maximum etc.

**Aggregate**

Aggregation: Sum : Salary

Function: Sum

Column: Salary

Cancel Delete Apply

**Chart**

Chart Type: Bar

Label: First Name

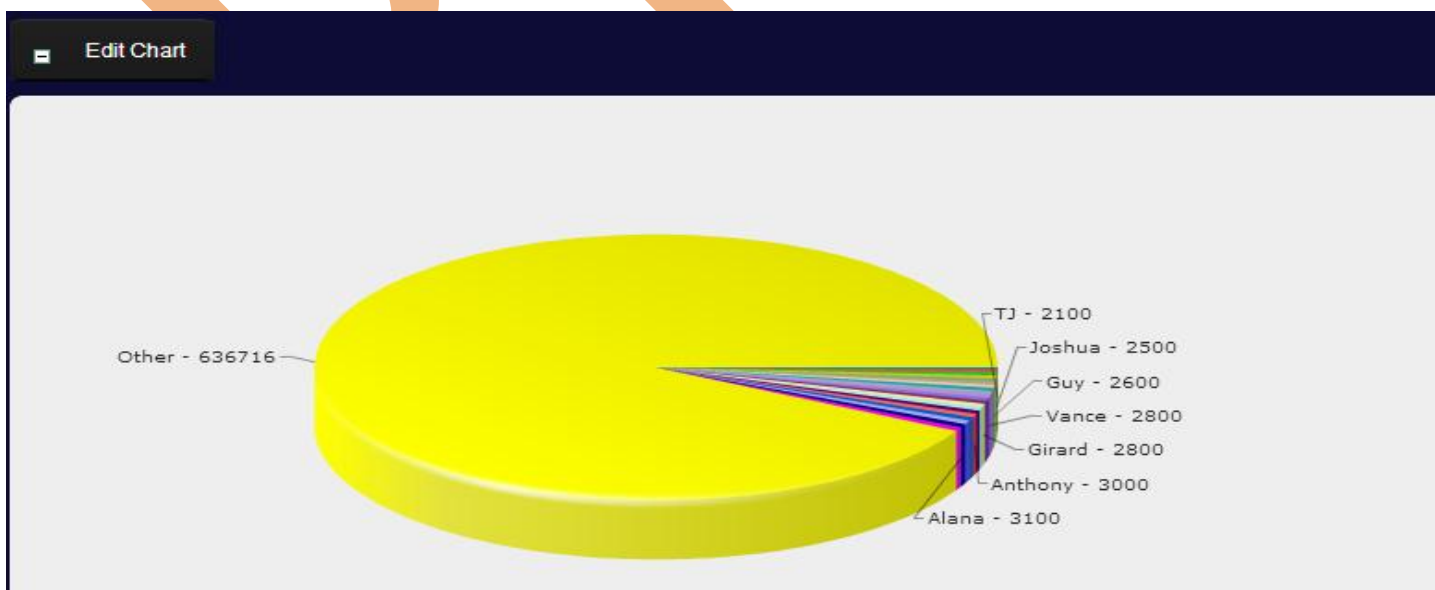
Value: Salary

Function: Sum

Sort: Value - Ascending

Cancel Apply


**6. Chart :** It is used to view report into chart as shown below



**7. Group By :** It is used to group columns with specific condition.

Edit Group By			
First Name	Last Name	Salary	kkkkkkkkkkkk
Alexander	Hunold	9000	9,000.00
Daniel	Faviet	9000	9,000.00
Ismael	Sciarra	7700	7,700.00
Shelli	Baida	2900	2,900.00
Karen	Partners	13500	13,500.00
David	Bernstein	9500	9,500.00
Sarath	Sewall	7000	7,000.00
Sundita	Kumar	6100	6,100.00
Ellen	Abel	11000	11,000.00
Jean	Fleaur	3100	3,100.00
Randall	Perkins	2500	2,500.00
John	Chen	8200	8,200.00
Jose Manuel	Urman	7800	7,800.00
Guy	Himuro	2600	2,600.00
Stephen	Stiles	3200	3,200.00

- ❖ **Flashback:** A flash back query allows you to view data as it existed at a previous point in time .




**Flashback**

A flashback query allows you to view the data as it existed at a previous point in time.

As of  minutes ago.

- ❖ **Save Report :** It is used to save report for future use .
- ❖ **Reset :** It is used to restore report to the default setting .
- ❖ **Help:** It is used for more assistance .
- ❖ **Download :** It is used to Download report .

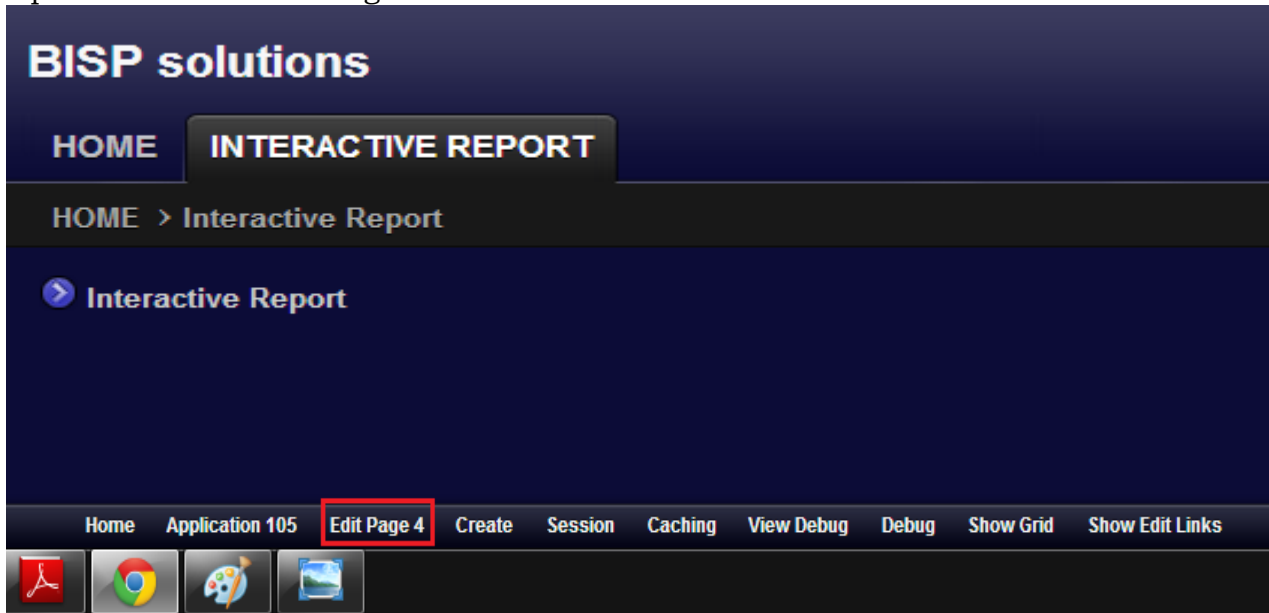
**Step 22:** Click on blank page icon to edit particular row detail.

	First Name	Last Name	Salary
	Adam	Fripp	8200
	Alana	Walsh	3100

Report View		Row 1 of 107
Employee Id	100	
First Name	Steven	
Last Name	King	
Email	SKING	
Phone Number	515.123.4567	
Hire Date	17-JUN-03	
Salary	24000	
Commission Pct	-	
Manager Id	-	
Department Id	90	
Job Id Id	4	

## Procedure to create Classic Report

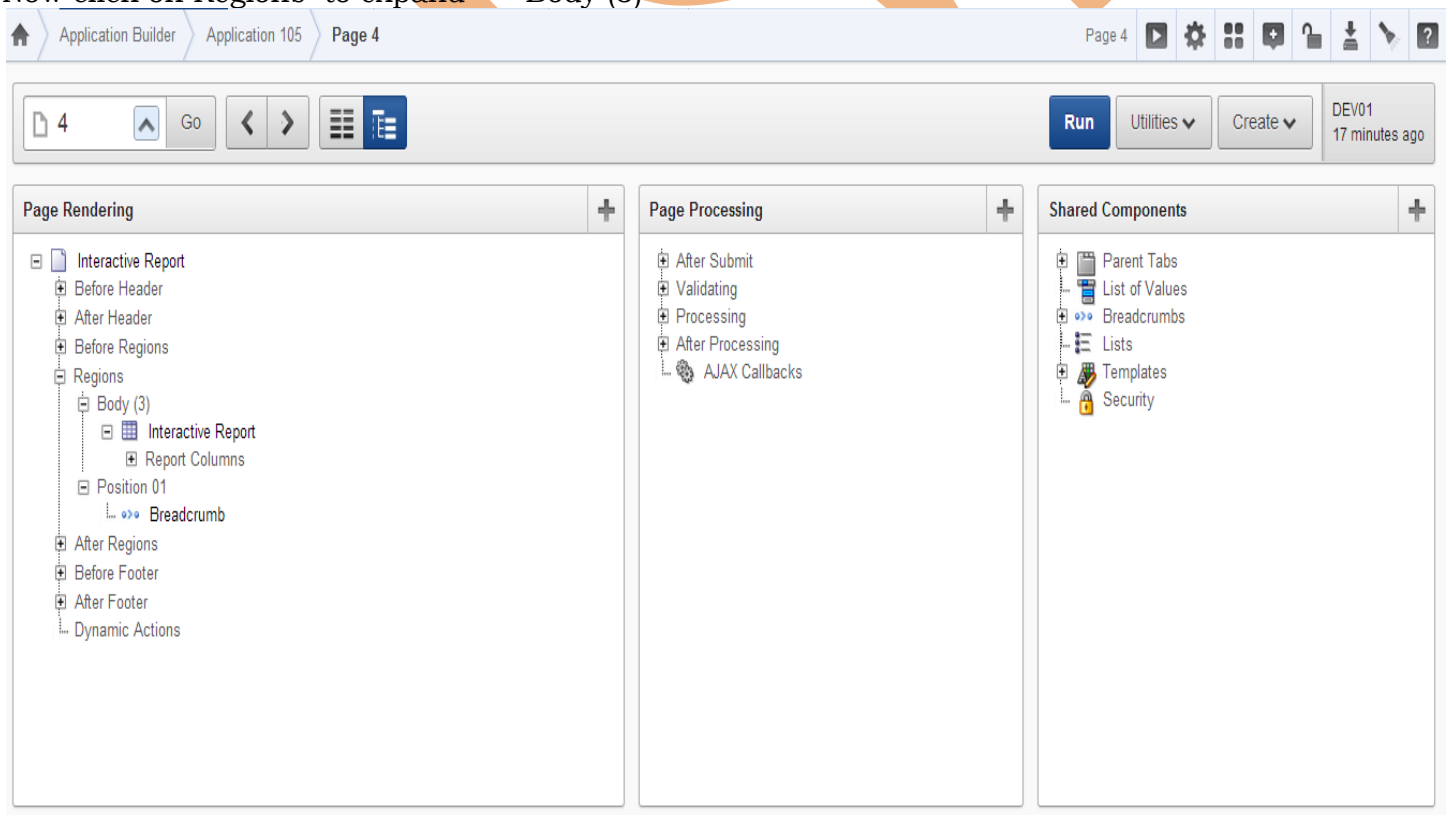
**Step 23:** Open Interactive Report page to create classic report on the same page of interactive report so click on Edit Page 4 located at the bottom



**Step 24:** Its Page 4 . Page is mainly divided into three parts 1) page rendering 2) Page processing 3) Shared components

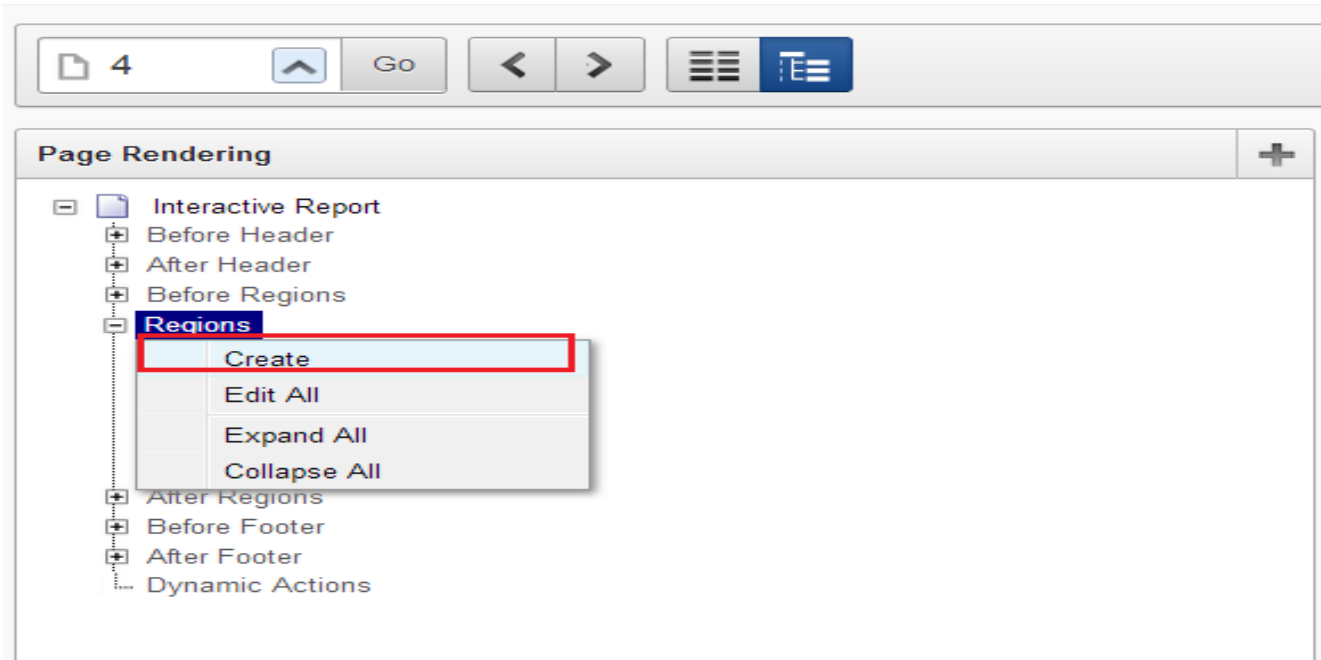
Page Rendering section is used to render page design whereas Page processing is used for processing purpose . Shared components section is mainly used to share components .

Now click on Regions to expand --> Body (3)

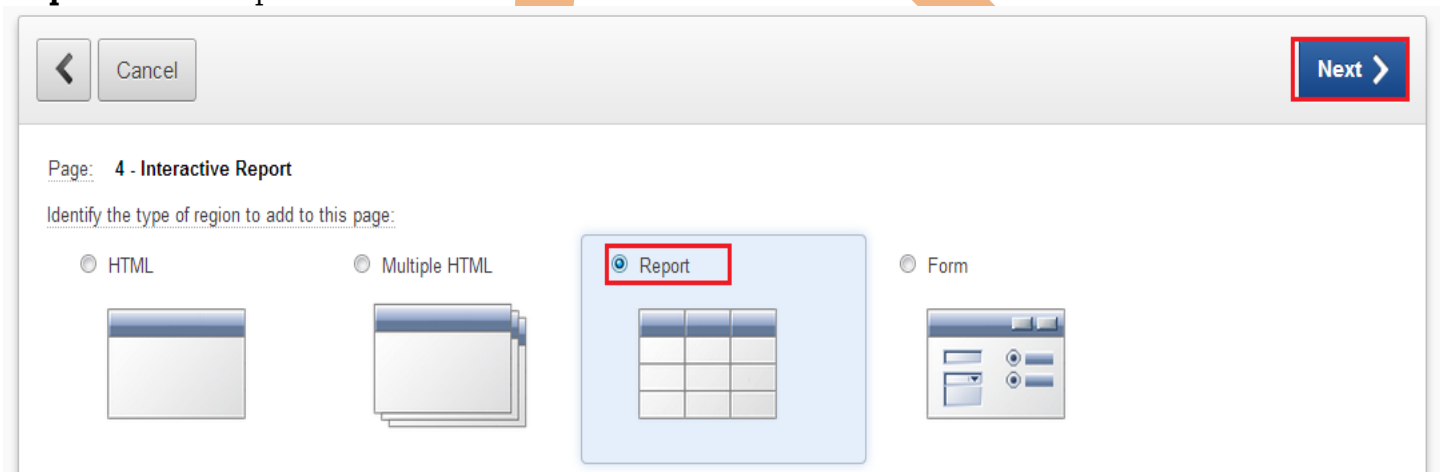


**Step 25:** Right click on Regions ---> Create





**Step 26:** Click Report then click on Next



**Step 27:** To create Report place radio button on Classic Report & click Next



**Step 28:** Fill the following required details :

- Title = Classic Report

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[www.bispsolutions.com](http://www.bispsolutions.com)

- Region template = Hide & Show Region
- Parent Region = leave as it is (optional as per requirement )
- Display point = Page Template Body (3)
- Sequence = 20
- Click on Next

Page: 4 - Interactive Report

Region Source Type: SQL Query

\* Title: Classic Report

Region Template: Hide and Show Region

Parent Region: - Select a Parent -

Display Point: Page Template Body (3)

[Body] [Pos.1] [Pos.2] [Pos.3] [Pos.4] [Pos.5]

\* Sequence: 20

> Top Region Templates

**Step 29:** Enter SQL query to add table on a report so click on Query builder

Enter SQL Query or PL/SQL function returning a SQL Query:

**Query Builder**

Page Items to Submit

Columns Headings: ☒ Derived from query columns ☐ Generic columns

Max.Columns: 60

**Step 30:** Click on Countries & Select all Columns & then click on **Run**

Schema **HR**

Cancel Return **Run**

**COUNTRIES**

<input checked="" type="checkbox"/>	COUNTRY_ID	A
<input checked="" type="checkbox"/>	COUNTRY_NAME	A
<input checked="" type="checkbox"/>	REGION_ID	289

Conditions **SQL** Results Saved SQL

**Step 31:** Click on SQL to see sql query.

Conditions **SQL** Results Saved SQL

```
select COUNTRIES.COUNTRY_ID as COUNTRY_ID,
       COUNTRIES.COUNTRY_NAME as COUNTRY_NAME,
       COUNTRIES.REGION_ID as REGION_ID
from COUNTRIES COUNTRIES
```

**Step 32:** Click on Return

Cancel **Return** Run

**Step 33:** Click on Next

< Cancel Create Region **Next >**

Enter SQL Query or PL/SQL function returning a SQL Query:

```
select COUNTRIES.COUNTRY_ID as COUNTRY_ID,
       COUNTRIES.COUNTRY_NAME as COUNTRY_NAME,
       COUNTRIES.REGION_ID as REGION_ID
from COUNTRIES COUNTRIES
```

**Query Builder**

Page Items to Submit

Columns Headings: ☒ Derived from query columns ☐ Generic columns

Max Columns 60

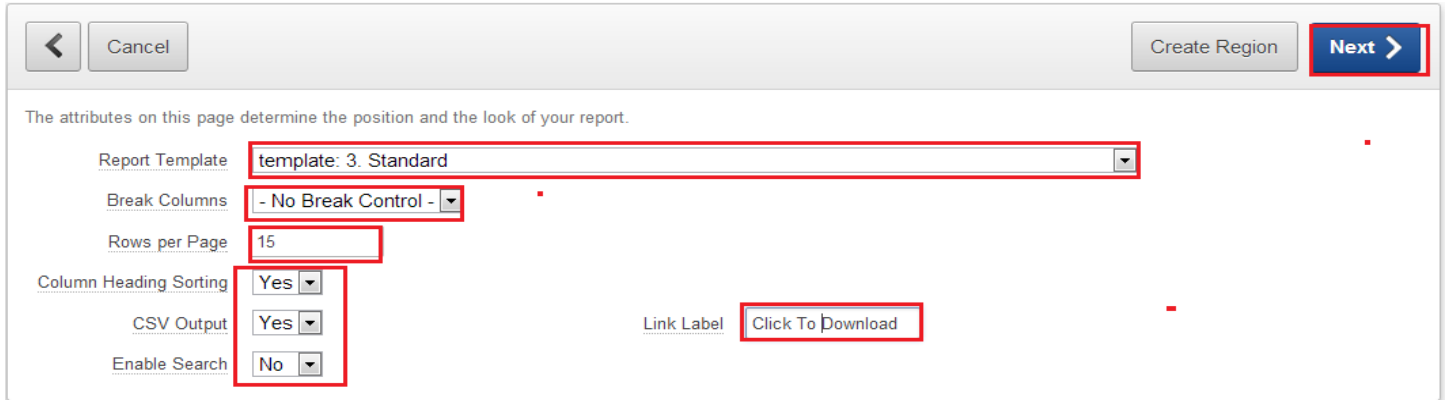
**Step 34:** Fill the following attributes such as

- Report Template = template :3 Standard

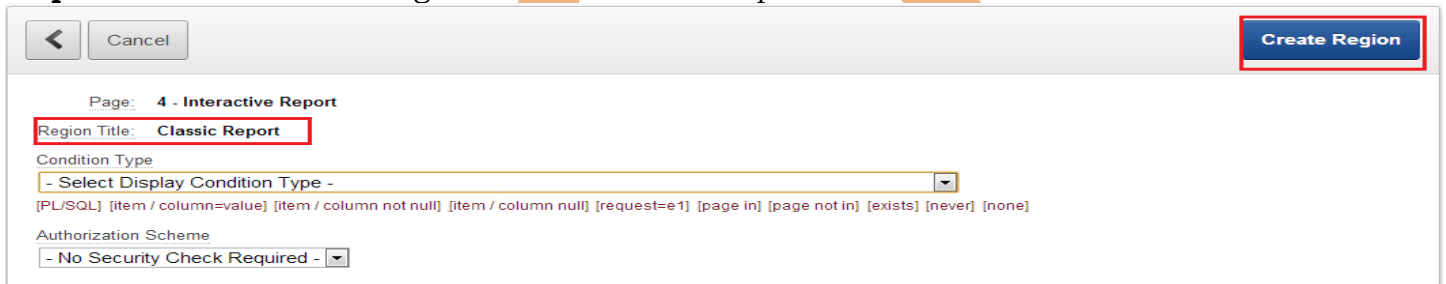
[www.bisptrainings.com](http://www.bisptrainings.com)

[www.bispsolutions.com](http://www.bispsolutions.com)

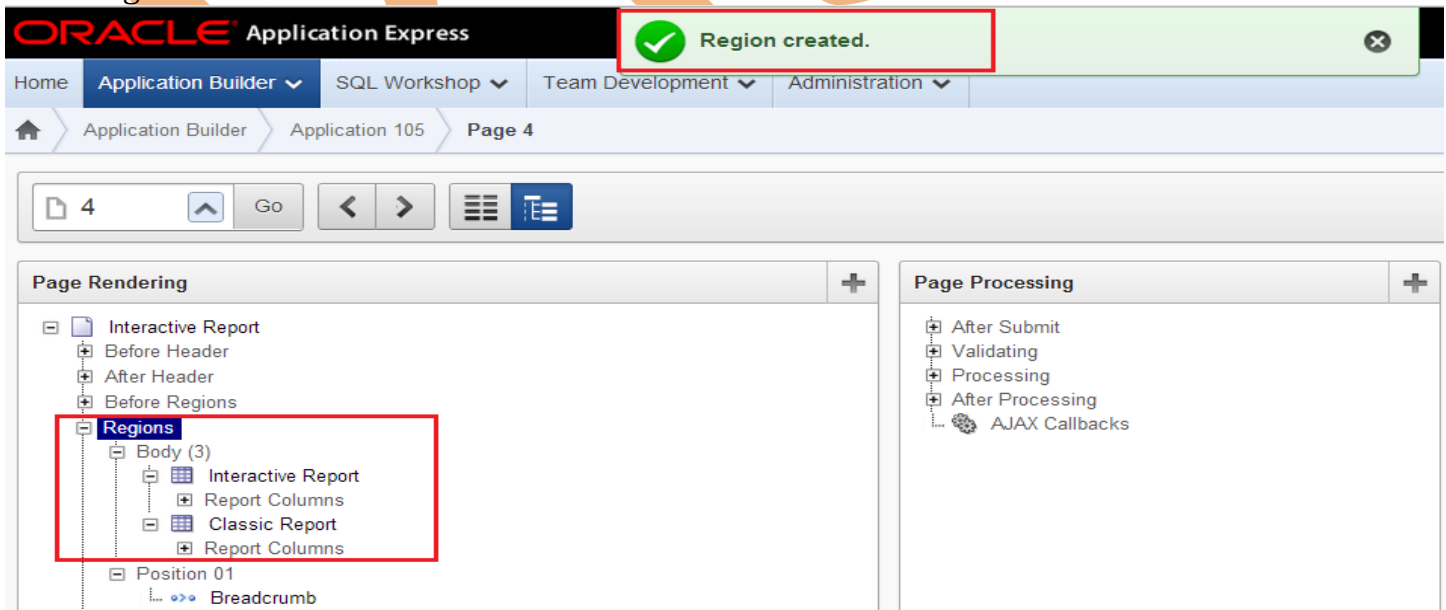
- Break columns = No Break Control
- Rows per page = 15
- Column Heading Sorting =Yes
- CSV Output = Yes
- Enable Search = No
- Link Label = Click To Download
- Click to Next



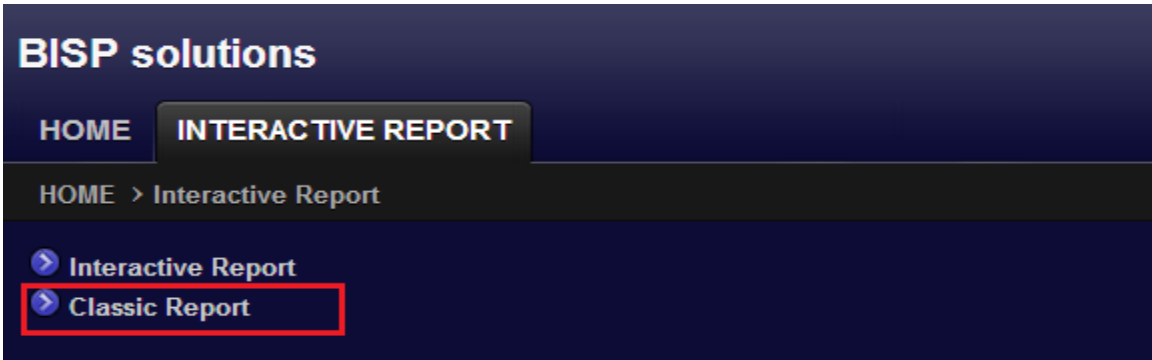
**Step 35:** Click on Create Region to create Classic report



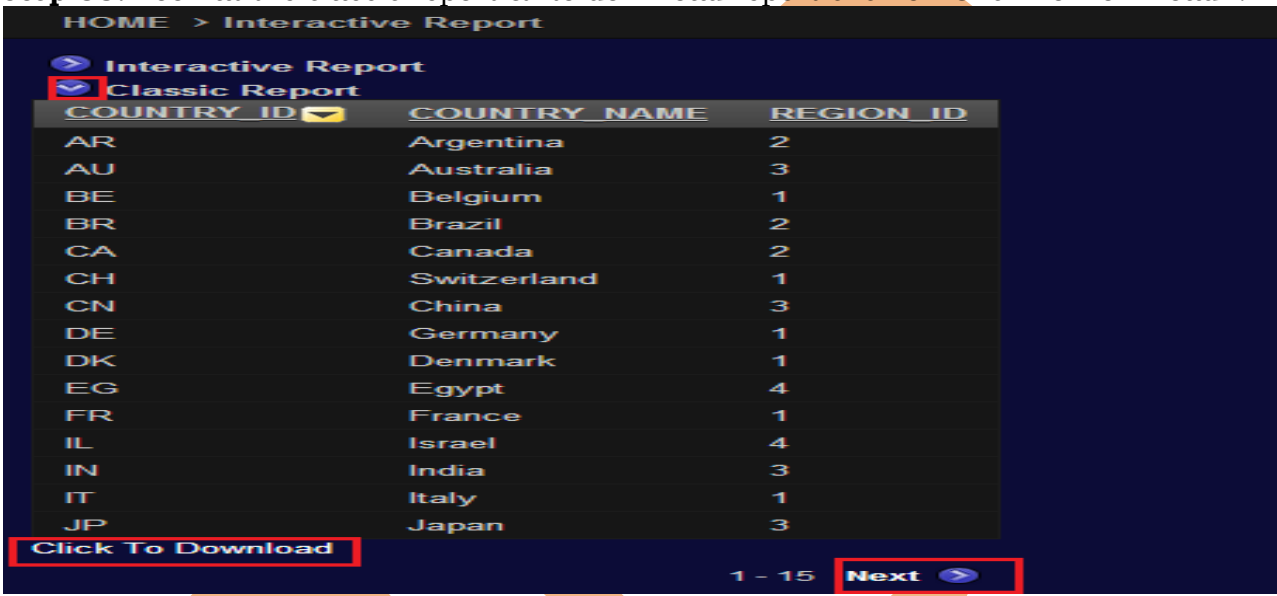
**Step 36:** Classic report created successfully & it is visible under Interactive reports in the page rendering section then click on **Run**



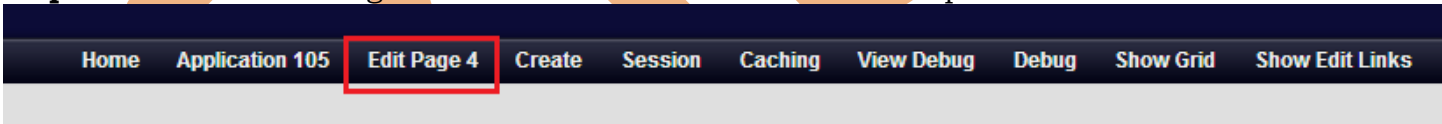
**Step 37:** Classic report created successfully with Hide & Show Region so click on Classic Report



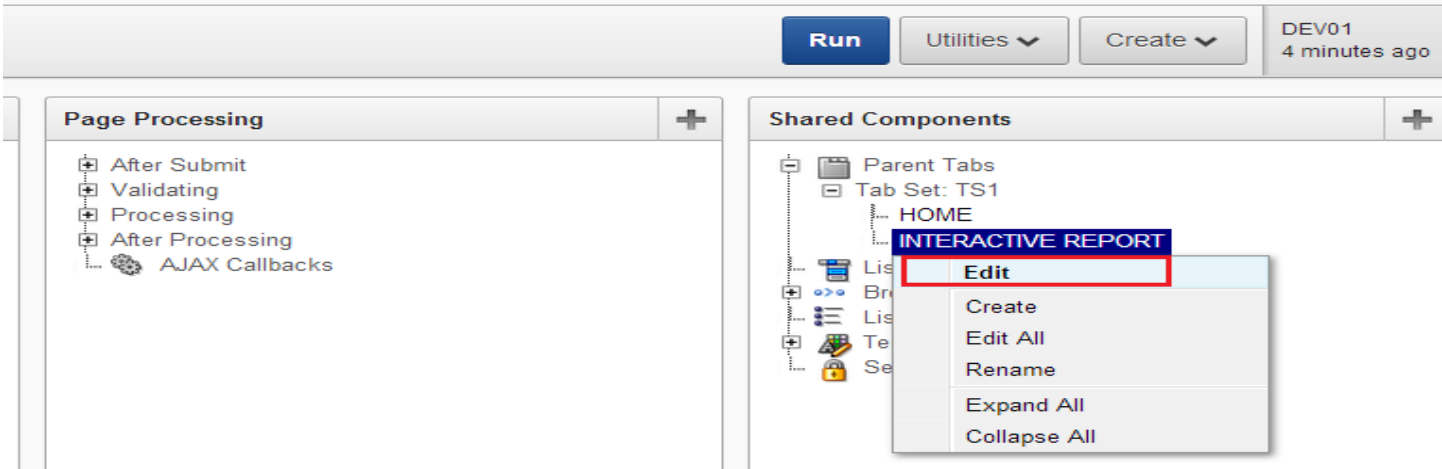
**Step 38:** Look at the classic report & to download report click on Click To Download .



**Step 39:** Click on Edit Page 4 to Edit Tab name from Shared Components



**Step 40 :** Click on Parent Tabs --> Tab Set:TS1--> INTERACTIVE REPORT  
Right click on INTERACTIVE REPORT then click on **Edit**



**Step 41:** Click on Names tab & Edit Tab Label = REPORTS & click on **Apply Changes** & then Click **Run**

Standard Tab

Cancel Delete **Apply Changes**

Show All Name Current For Pages Conditions Images Parent Tab Set Authorization Configuration Comments

Name

Application: 105 BISP solutions

\* Tab Name Interactive Reports

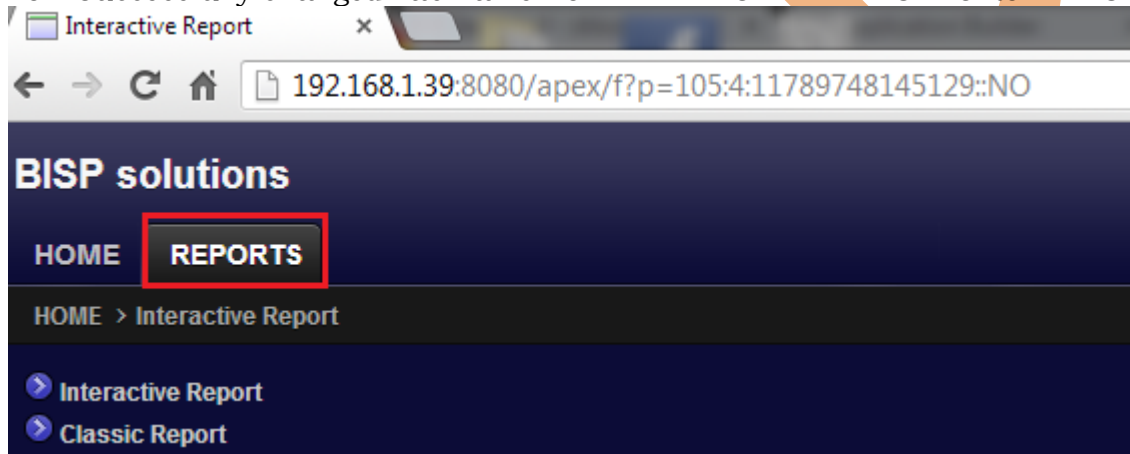
\* Sequence 20

Standard Tab Set TS1 (HOME, REPORTS)

\* Tab Label **REPORTS**

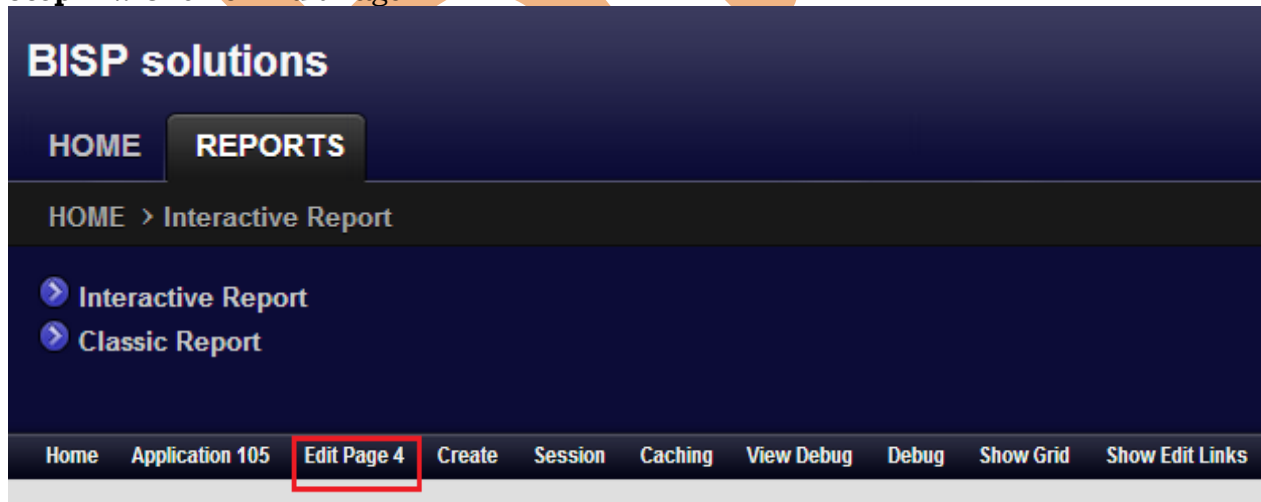
Updated: 17 seconds ago - DEV01

Now Successfully changed Tab name from INTERACTIVE REPORTS to REPORTS

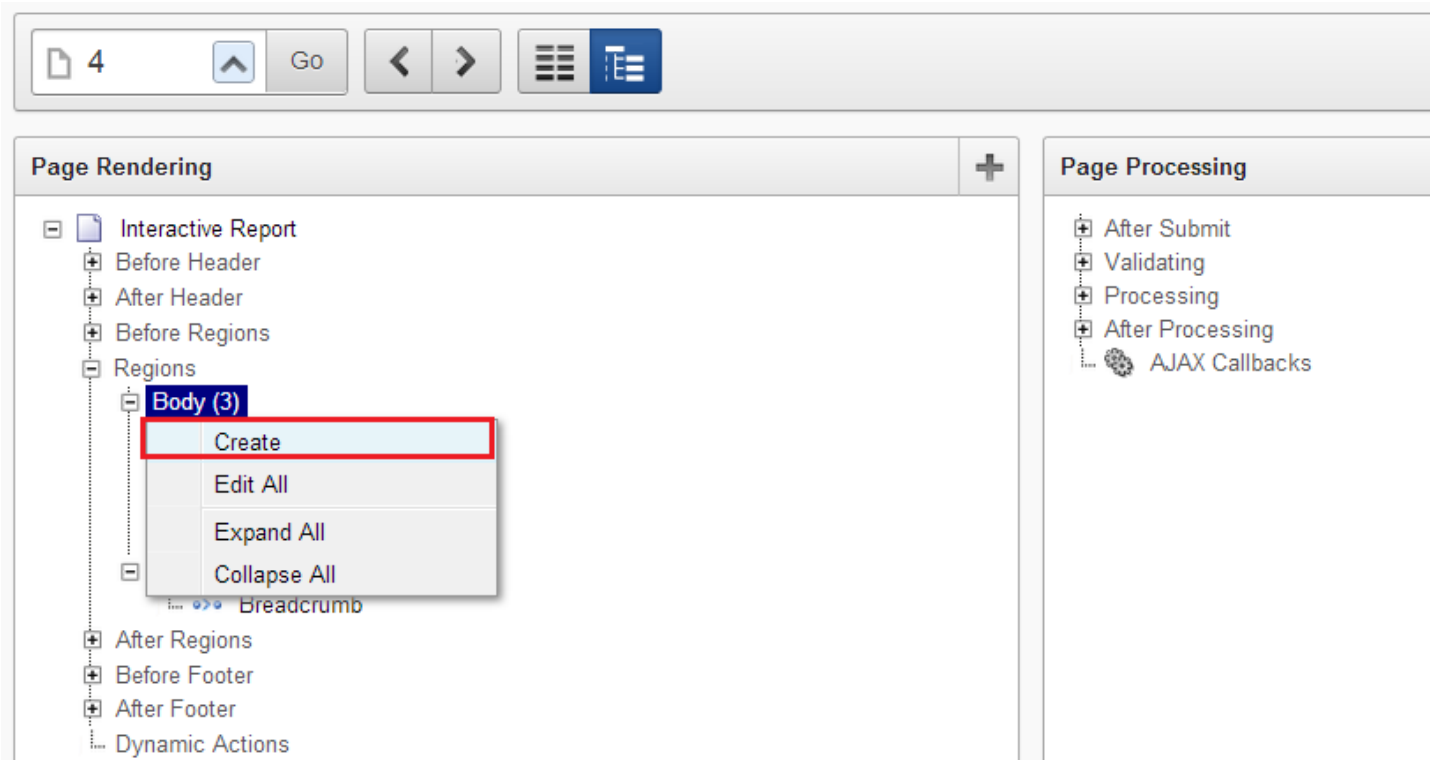


## Procedure to create Wizard Report

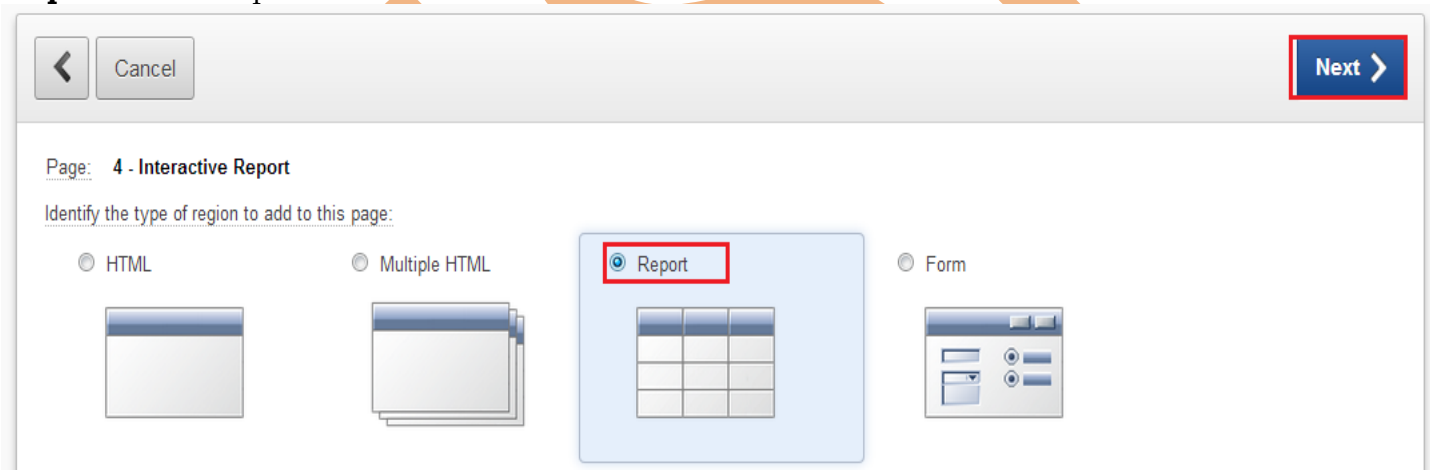
**Step 42:** Click on Edit Page 4



**Step 43:** Right click on Regions or Body(3) ---> Create



**Step 44:** Click Report then click on Next



**Step 45:** To create Report place radio button on Wizard Report & click Next



**Step 46:** Fill the following required details :

- Title = Wizard Report

- Region template = Hide & Show Region
- Parent Region = leave as it is (optional as per requirement )
- Display point = Page Template Body (3)
- Sequence = 30
- Click on Next

Page: 4 - Interactive Report

Region Source Type: SQL Query (Structured Query)

\* Title: Wizard Report

Region Template: Hide and Show Region

Parent Region: - Select a Parent -

Display Point: Page Template Body (3)

\* Sequence: 30

> Top Region Templates

#### Step 47: Add Table from HR schema & select Columns

- Table/ View Owner = HR
- Table /View Name = ACCOUNT
- Show related table only = Yes
- Select All Columns
- Click Next

Table/ View Owner: HR

Table / View Name: ACCOUNT

Show Related Tables Only: ☐ No ☒ Yes

Select Columns:

Columns Selected:

- ACCOUNT.ACNUM
- ACCOUNT.BRANCHCODE
- ACCOUNT.ACTYPECODE
- ACCOUNT.CUSTOMERTYPECODE