Different color bars chart with Popup Box in ADF

Department wise employee count graph with popup Box in ADF:

(popup box shows Employees names and manager name for particular department).

I am going to explain how we can create the model value for bar graph which we can pass in the tabular data attribute of bar graph and popupbox.

1.Start JDeveloper by selecting Start > Programs > Oracle Fusion Middleware 11.1.6.0.0 > JDeveloper Studio 11.1.1.6.0.



2. In the Select Role dialog, choose "Default Role" and click "OK".

| 🕌 Select Role | × |
|--|---|
| Select the role that matches your requirements. You can also change roles using the Roles page in preferences. | |
| <u>R</u> ole: | |
| Oefault Role | |
| Enables all technologies. | |
| Customization Developer | |
| Configures the product for customizing metadata. | |
| O Database Edition | |
| Includes only features for core database development. | |
| Java EE Edition | |
| Includes only features for core Java EE development. | |
| Java Edition | |
| Includes only features for core Java development. | |
| ✓ <u>A</u> lways prompt for role selection on startup | |
| OK Cancel | |

3.File > New then selecting the Applications menu item in the left side of the new dialog, select the **Fusion Web Application (ADF)** type and click "**OK**".

| All Technologies Current Project Technologies This list is filtered according to the current project's selected technologies. Search Categories: Items: |
|--|
| |
| Applications Image: Connections Image: Connections Image: Connections Image: Deployment Descriptors Image: Connection from EAR File Image: Deployment Profiles Image: Connection from EAR File Image: D |
| ADF Business Components Data Controls Security All Items Help OK Cancel |

4. Create the application name as GrapWithColors click "Next".

| े Create Fusion Web A | pplication (ADF) - Step 1 of 5 | | X |
|--|---|---------------------|----------|
| Name your applicatio | n | | E |
| Application Name Project 1 Name Project 1 Java Settings Project 2 Name Project 2 Java Settings | Application Name: GrapWithColors Directory: E:\JDEV\mywork\GrapWithColors Application Package Prefix: com.tad | | Browse |
| Help | | < Back Next > Finis | h Cancel |

5.It will create model project click "Next".

| े Create Fusion Web A | pplication (ADF) - Step 2 of 5 |
|--|---|
| Name your project | |
| Application Name Project 1 Name | Project Name: Model Directory: E:\JDEV\mywork\GrapWithColors\Model Browse |
| Project 1 Java Settings Project 2 Name Project 2 Java Settings | Project Technologies Generated Components Associated Libraries Available: Selected: ADF Desktop Integration ADF Faces ADF Faces ADF Library Web Application Support ADF Mobile Browser Image: Components ADF Page Flow Image: Components ADF Swing Image: Components Ant Image: Components Database (Offline) Image: Components EJB Image: Components HTML Image: Components is the business services API provided by the Oracle Application Development Framework (Oracle ADF). ADF Business Components governs interaction between the rest of the application and the data stored in the |
| Help | < <u>B</u> ack <u>N</u> ext > <u>F</u> inish Cancel |

6.It will create javaSettings click "Next".

| 🗅 Create Fusion Web A | pplication (ADF) - Step 3 of 5 🛛 🛛 🔀 |
|--|---|
| Configure Java settin | ngs |
| Application Name Project 1 Name Project 1 Java Settin Project 2 Name Project 2 Java Settings | Your new project starts with a default package, a source root directory, and an output directory. Default Package: <u>com.tad.model Java Source Path: EthIDEV/mywork/GranWithColors/Model/scr. Browse</u> |
| | Output Directory: E:\JDEV\mywork\GrapWithColors\Model\classes Browse |
| Help | < <u>Back</u> <u>Next</u> <u>Finish</u> Cancel |

7.click "Next".

| 🍐 Create Fusion Web A | pplication (ADF) - Step 4 of 5 |
|---|---|
| Name your project | an 2010101010101010101010 |
| Application Name Project 1 Name Project 1 Java Settings | Project Name: WiewController Directory: E:\JDEV\mywork\GrapWithColors\ViewController Project Technologies Generated Components Associated Libraries |
| 🗼 Project 2 Name | <u>A</u> vailable: <u>S</u> elected: |
| Project 2 Java Settings | ADF Business Components ADF Desktop Integration ADF Library Web Application Support ADF Page Flow ADF Mobile Browser Image: Second |
| Help | < <u>B</u> ack <u>N</u> ext > <u>F</u> inish Cancel |

8.Click"Finish".

| 🔷 Create Fusion Web A | pplication (ADF) - Step 5 of 5 🛛 🛛 🔀 |
|--|---|
| Configure Java settir | ngs |
| Application Name Project 1 Name Project 1 Java Settings Project 2 Name | Your new project starts with a default package, a source root directory, and an output directory. Default Package: com.tad.view Java Source Path: |
| Settin | E:\JDEV\mywork\GrapWithColors\ViewController\src Browse Qutput Directory: E:\JDEV\mywork\GrapWithColors\ViewController\classes Browse |
| < | < <u>B</u> ack <u>N</u> ext > <u>Finish</u> Cancel |

9. **Right-click** on the new **Model** project and select **new**. We're going to create some business components – these are the components that interact with your database. Select **ADF Business Components** from the left side and **View Object** on the right. Then click "**OK**".

| 🕹 New Gallery | |
|---|---|
| All Technologies Current Project Technolo | ogies |
| This list is filtered according to the current pr | roject's <u>selected technologies</u> . |
| <u>C</u> ategories: | Items: Show All Descriptions |
| General Applications Connections Deployment Descriptors Deployment Profiles Diagrams Java Projects Business Tier ADF Business Components Data Controls Security All Items | Image: Second system Image: Second system Image: Second |
| | View Link View Object Launches the Create View Object wizard, which allows you to create a view object. Use view objects to retrieve data from a data source and to expose and shape the data for clients. To enable this option, you must select a project in the Application Navigator. Before you can finish creating the new view object, you will be prompted to select (or create) a database connection. |
| Help | OK Cancel |

10.In the first panel of the wizard, we're going to need to define a connection to our database. Click the **green plus symbol** "+" next to the connection drop down.

| Initialize Business Components Project |
|--|
| This project has not yet been initialized for Business Components. After specifying the following information for your Business Components Project (jpx file), you will be prompted to create your Business Component(s). |
| Specify the database connection that lets you create Business Components from existing database objects. |
| Connection: 🗾 🚽 🦉 🔍 |
| User Name: |
| Driver: |
| Connect String: |
| Choose the proper SQL flavor and type map that fits your application. SQL Flavor: Oracle |
| Type Map: Oracle |
| |
| |
| Help OK Cancel |

11.Fill in the appropriate values as shown and click "**OK**". Select "**Test Connection**" to ensure the proper credentials are entered.

| े Create Databas | se Connection | | | × |
|---------------------------|---|-----------------------------|---------------------|--------|
| Configure a new data | abase connection and add it to the current app | lication (Gr | apWithColors). | |
| | | | | |
| Create Connection I | in: Application Resources IDE Connection | ections | | |
| Co <u>n</u> nection Name: | graph | | | |
| <u>C</u> onnection Type: | Oracle (JDBC) | | | |
| <u>U</u> sername: | hr | <u>R</u> ole: | | - |
| <u>P</u> assword: | •• | <mark>∢</mark> <u>S</u> ave | Password | |
| - Oracle (JDBC) Setti | ings | | | |
| Enter Custom <u>J</u> D | BC URL | | | |
| Driv <u>e</u> r: | thin | • | | |
| H <u>o</u> st Name: | localhost | | JD <u>B</u> C Port: | 1521 |
| ID: ● SID: | XE | | | |
| ◯ Service Na <u>m</u> e: | XE | | | |
| | | | | |
| | | | | |
| Test Connection | | | | |
| juccess! | | | | |
| | | | | |
| | | | | |
| Help | | | ОК | Cancel |

12.Click "**OK**" again to close the connection dialog and you will be taken into the ADF BC wizard.

| 👌 Create Vie | w Object - Step 1 of 9 | |
|---|--|---|
| Name | | |
| 🔍 Name | View objects a task. | re for joining, filtering, projecting, and sorting your business data for the specific needs of a given application |
| 🖕 🦕 <u>Entity Obj</u> | ects Package: | com.tad.model Bro <u>w</u> se |
| Attributes | Na <u>m</u> e: | GrapPopupVO |
| Attribute : | Settings Display Name: | Grap Popup Vo |
| Query Bind Varia Java Application Summary | bles Extends: Property Set: Module Select the data Updatable Read-only Rows popu Rows popu | Browse Browse Browse Receive type you want to use as the basis for this view object. access through entity objects access through SQL query lated programmatically, not based on a query lated at design time (Static List) |
| Help | | < Back Next > Einish Cancel |

13. Mention the View Object Name as GraphPopupVO then click "Next".

14.Click Button "Query Builder.."

| े Create View Object | - Step 2 of 9 |
|----------------------|--|
| Query | 010101010101010101010101010 |
| 🙊 <u>Name</u> | Enter your custom SELECT statement and click Test to check its syntax. Provide the ORDER BY clause separately. |
| 🥥 Query | -Query Statement |
| Bind Variables | |
| Attribute Mappings | |
| Attributes | |
| Attribute Settings | |
| y Java | |
| Application Module | |
| O Summary | |
| | |
| | -Query Clauses |
| | Cudar Du |
| | |
| | Binding Style: Oracle Named Query Builder Explain Plan Iest |
| · | SQL Mode: Expert - |
| Help | < <u>Back</u> <u>Mext</u> Einish Cancel |

15.Click "Query" Button.

| e 🌢 SQL Statement | X |
|--|--|
| Quick-pick objects FROM clause SELECT clause | Quick-pick objects Schema: HR Yupe Filter: OFF Filter: % |
| WHERE clause GROUP BY clause HAVING clause Bind Variables Entire SQL Query | Querying Database Retrieving available objects from the database. Cancel Image: Cancel |
| Help | OK Cancel |

16.Select your table which is available in oracle DB,click "Ok".

Note: In this example I am maintaining employee, department, manager information in same table

| 👌 Crea | 🕹 SQL Statement | | | X |
|--|--|---|-------------------------------|------------|
| Query | Search | Quick-pick objects Schema: HR | Type Filter: OFF Filter Types | |
| Na Qu D At O At O At O At O At O At O Su | Quick-pick objects FROM clause SELECT clause GROUP BY clause HAVING clause Bind Variables Entire SQL Query | Schema: HR Name Filter: % Available: Available: APPLN APPLN CONTRACTOR COUNTRIES COUNTRIES COUNTRIES EMPDESIG EMPLOYEE EMPLOYEE EMPLOYEES EMPLOYEES EMPLOYEES EMPLOYEES EMPLOYEES EMPLOYEES DOB_HISTORY LOCATIONS LOCATIONS LOCATIONS MANDATORY_TRAINING MEDICARE MEDICARE1 MEDICLAIM | | it Iest |
| Hel | Help | | OK Cancel ar | ncel |

17.Click "Next".

| <u>ی</u> | reate View Object | - Step 2 of 9 |
|----------|--------------------|--|
| Qu | ery | |
| 4 | Name | Enter your custom SELECT statement and click Test to check its syntax. Provide the ORDER BY clause separately. |
| 0 | Query | Cuery Statement |
| Ý | Bind Variables | SELECT |
| ψ | Attribute Mappings | TESTEMP.ID ID, |
| ģ | Attributes | TESTEMP.NAME NAME, TESTEMP.DEPTID. |
| ģ | Attribute Settings | TESTEMP.DEPTNAME DEPTNAME, |
| Ŷ | Java | TESTEMP. MANAGERNAME MANAGERNAME |
| ģ | Application Module | TESTEMP |
| 0 | Summary | |
| | | |
| | | |
| | | Cuery Clauses |
| | | Order By: |
| | | Pinding Stules Overse Manuel |
| | | |
| | | SQL Mode: Expert |
| | Help | < <u>B</u> ack <u>N</u> ext > Einish Cancel |

18.Just click "Next" button for step3 to step7.

19.In Step8 Enable" Application Module" check box then click "Next".

| 👌 Create View Object - | Step 8 of 9 | X |
|--|--|--|
| Application Module | | |
| Query Bind Variables | Select the checkbox to add an instance of this view object to an application module exist, it will be created. Image: Application Module | . If the specified application module does not |
| Attribute Mappings | Package: com.tad.model Nam <u>e</u> : AppModule | Bro <u>w</u> se B <u>r</u> owse |
| Attribute Settings Java Application Module | | |
| Summary | | |
| | | |
|)) | | |
| : <u>H</u> elp | < <u>B</u> | ack <u>N</u> ext > <u>F</u> inish Cancel |

20.GrapPopVO.xml file create bind variable(Click plus simble)



21. Give the bind variable name as pDeptName

| 🔷 Bind Varia | ıble | × |
|----------------|---------------------------------|--------------|
| Variable | Custom Properties Control Hints | |
| <u>N</u> ame: | pDeptName | |
| <u>T</u> ype: | String 🗸 | Browse |
| Value Type: | Literal Expression | Test |
| <u>V</u> alue: | | <u>E</u> dit |
| | ✓ Updatable | |
| Help | ОК | Cancel |

22.GrapPopVO.xml file create ViewCriteria(Click plus simble)



23. Give the criteria name as getEmployees

| 🧁 Create View Criteria | |
|--|---|
| <u>C</u> riteria Name: getEmployees Criteria Definition UI Hints | Query Execution Mode: Database 💌 |
| View Criteria: GrapPopVOCriteria Criteria Criteria Criteria Deptname = :pDeptName | View Object Where Clause: (((UPPER(DEPTNAME) = UPPER(:pDeptName)))) |
| Add Item Add Group Add Criteria Add Named Criteria. — Criteria Item | Delete Explain Plan Test |
| Conjunction: AND Attribute: Deptname Operator: Equals Operand: Bind Variable Parameter: pDeptName | ✓ Ignore <u>Case</u> ✓ Ignore Null Values <u>V</u>alidation: Optional |
| Help | OK Cancel |

24. Again we need to create another criteria in GrapPopVO.xml file,

Give the criteria name as getManager

| 📥 Create Vi | ew Criteria | |
|-----------------------------------|---|---|
| <u>C</u> riteria Nam | e: getManager | Query Execution Mode: Database 💌 |
| Criteria Defi | nition UI Hints | |
| <u>Vi</u> ew Criteria: | | Vie <u>w</u> Object Where Clause: |
| GrapPop) ف⊷ه Crite ف⊷ () د | VOCriteria ria Group Ima Deptname = :pDeptName | ((UPPER(DEPTNAME) = UPPER(:pDeptName)))) |
| | | |
| | | |
| | | |
| Add Item | Add <u>G</u> roup Add <u>C</u> riteria Add <u>N</u> amed Criteria | Delete Explain Plan |
| — Criteria Ite | m | |
| Conjunction: | AND | ✓ Ignore <u>C</u> ase |
| Attri <u>b</u> ute: | Deptname | ✓ Ignore Null Values |
| Ope <u>r</u> ator: | Equals | Validation: Optional |
| Operand: | Bind Variable 👻 | |
| <u>P</u> aramete | er: pDeptName 🔹 🗣 | |
| Help | | OK Cancel |

26.Create another view object name as GrapEmpCountVO

| 4 | Create View Object | Step 1 of 9 | | |
|--------|---|--|---|-----------------|
| Ν | Name | | 01 | |
| ļ | 🔍 Name | View objects an task. | e for joining, filtering, projecting, and sorting your business data for the specific needs of a give | n application |
| | Entity Objects | Package: | com.tad.model | Bro <u>w</u> se |
| C C | Attributes | Na <u>m</u> e: | GrapEmpCountVO | |
| | 4 Attribute Settings | Display Name: | Grap Emp Count Vo | Q |
| 3 | Ú Query | E <u>x</u> tends: | | Browse |
| 4 | O Bind Variables | Property Set: | <none></none> | • |
| | Java Application Module Summary | Select the data Updatable a Read-only a Rows popula | source type you want to use as the basis for this view object. ccess through entity objects ccess through SQL query ated programmatically, not based on a query ated at design time (Static List) | |
| | Help | | < <u>B</u> ack <u>N</u> ext > Einis | h Cancel |

27. In query section modify the query as given below.

(We need to count the employees in department wise)

| 3 | Create View Object | - Step 2 of 9 |
|----|--------------------|--|
| Qu | iery | |
| A | Name | Enter your custom SELECT statement and click Test to check its syntax. Provide the ORDER BY clause separately. |
| | Query | -Query Statement |
| Ý | Bind Variables | SELECT |
| ý | Attribute Mappings | |
| ģ | Attributes | count (*) |
| ý | Attribute Settings | |
| Ý | Java | TESTEMP group by DEPTNAME |
| Ý | Application Module | |
| 6 | Summary | |
| | | |
| | | -Ouery Clauses |
| | | |
| | | Qrder By: |
| | | Binding Style: Oracle Named 🔻 Query Builder Explain Plan Iest |
| | | SQL Mode: Expert - |
| | Help | < <u>B</u> ack <u>N</u> ext > Einish Cancel |

28.Click Test button to test the query is valid or not.

| 🕹 Create View Object | - Step 2 of 9 | × |
|--|--|---|
| Query | 01 | |
| 🙊 <u>Name</u> | Enter your custom SELECT statement and click Test to check its syntax. Provide the ORDER BY clause separately. | |
| Query <u>Bind Variables</u> Attribute Mappings Attributes Attribute Settings Attribute | Query Business Components SELE Query is valid. coum OK | 1 |
| Application Module | TESTEMP group by DEPTNAME | |
| | Order By: Edit Binding Style: Oracle Named SQL Mode: Expert | t |
| Help | < <u>Back</u> Einish Cancel | |

29.In Step8 Enable" Application Module" check box then click "Next".

| | త (| Create View Object - | Step 8 of | f 9 | | | | | | | | | | X |
|-------------|----------------|--------------------------------------|---------------------------|---------------------------------|--------------------|------------|-------------|-------------|---------------|----------------|------------------|----------|-----------|-----------------|
| | Арј | plication Module | | | | | | | | | | | bio / | |
| | Ŷ | Name Query | Select the exist, it w | e checkbox to ill be created | o add an in: d. | istance of | f this view | object to a | an applicatio | on module. D | (f the specifie | d applic | ation moo | dule does not |
| 8 1 | | Bind Variables Attribute Mappings | Package: | com.tad.mo | odel | | | | | | | | | Bro <u>w</u> se |
| | 0 | Attributes Attribute Settings | Nam <u>e</u> : | AppModule | | | | | | | | | | Browse |
| | | Application Module | - | | | | | | | | | | | |
| L | | | | | | | | | | | | | | |
| , | | | | | | | | | | | | | | |
| e 11 | | | | | | | | | | | | | | |
|) | | Help | | | | | | | | < <u>B</u> ack | . <u>N</u> ext > | | Einish | Cancel |

30.We will now edit the **AppModule**,**Double click** this item to open it for editing. Select "**Java**" Tab then click "Edit" (Pencil Symbol).

| Application × 🕞 | GrapWithColors Ov | erview 🗴 🖄 GraphVO.xml 🗴 💼 AppModule.xml 🗴 | | l | | | |
|--|--|--|-------------|---|--|--|--|
| 🔁 GrapWithColors 🔹 🖃 🔹 | | (| ? ^ | | | | |
| 🗢 Projects 🛛 💽 🖓 🖓 🕶 🔚 🗸 🗌 | General | | | l | | | |
| | Data Model | Java Classes 🧪 | 1 | | | | |
| Application Sources | Java | . Click the edit icon to generate and configure java | | | | | |
| | EJB Session Bean implementation classes for this object. | | | | | | |
| | Service Interface | | | | | | |
| | Configurations | | | | | | |
| | | 🗆 Client Interface 🥼 | P | | | | |
| ModelBundle.properties | | The client interface contains the methods from the application | - | | | | |
| ViewController | | module class that are available for clients using this object. | | | | | |
| | | | | | | | |
| adfc-config.xml | | | | | | | |
| Faces-config.xml | | | | | | | |
| trinidad-config.xml | | | | Ŀ | | | |
| web.xml | | | | | | | |
| ' ⊞⊡ Page Flows | | | | | | | |
| | | | ~ | | | | |
| | Overview Source Hi | story | 2 | | | | |
| | Messages - Log × | | | | | | |
| | WARNING: Failed | to validate the xml content. cvc-complex-type | e. 2 ^ | | | | |
| | Jul 21, 2013 5:3 MADNING: Reiled | 4:35 PM oracle.security.jps.internal.common.u | ati. sel | | | | |
| | Jul 21, 2013 5:3 | 94:35 PM oracle.security.jps.internal.common.u | ati. | | | | |
| | WARNING: Failed | to validate the xml content. cvc-complex-type | e.2 | | | | |
| | Jul 21, 2013 6:3 | 81:00 PM oracle.jdbc.driver.OraclePreparedStat | cem, | | | | |
| | SEVERE: EF25BF 1 | Throwing SQLException: 3 | | | | | |
| | SEVERE: 645C36 1 | Throwing SQLException: 3 | | | | | |
| | Jul 21, 2013 6:3 | 1:00 PM oracle.jdbc.driver | - | | | | |
| Application Resources Data Capturals | SEVERE: 1FCD190 | Throwing SQLException: ORA-00936: missing exp | pre | | | | |
| Data Controls Controls Controls Recently Opened Files | 936 | | ** | | | | |
| (CCC Contraction of the second secon | < . | | > | | | | |
| Loading com.tad.model.AppModule | | Selected: Appl | Module | | | | |

31. Enable the check Box Generate "Application Module Class", then click "OK".



Now We are going to see how to write code to create different colors bars graph with popup box in ADF.

1.Get Data From Table

2. Mention Different colors and popup logic in bean.

3.Call your method in ADF barGraph tabular data attribute and listener.

1.Get Data From Table:

a) Get Data for graph

b)Get Data for popup box information

a) Get Data for graph

Following code explains we are creating List<String> from VO , each element of the list holds particular Department Name and Employees count of the particular department .

Because Name is the x-axis of the graph and Employees count is the bars length of the graph.

To add the following java method in your AppModuleImpl.java file

Code for to create graph programmatically:

```
public List<String> deptGraph()throws Exception{
```

int i=0;

List <String> list1=new ArrayList<String>();

try{

ViewObjectImpl impl=getGrapEmpCount1();

impl.executeQuery();

while(impl.hasNext()){

Row row=impl.next();

i++;

String st=row.getAttribute("Deptname")+","+row.getAttribute("Count1")+"";

```
list1.add(st);
```

```
}
}
catch(Exception e){
    e.printStackTrace();
}
```

return list1;

}

To get Employess in particular department:

public List<String> getEmployees(String deptName){
 List<String> list=new ArrayList<String>();
 ViewObjectImpl vo=getGrapPopVO1();
 ViewCriteria vc=vo.getViewCriteria("getEmployees");
 vo.setNamedWhereClauseParam("pDeptName", deptName);
 vo.applyViewCriteria(vc);
 vo.executeQuery();
 while(vo.hasNext()){
 Row row=vo.next();
 list.add(row.getAttribute("Name").toString());

}

```
return list;
```

}

To get Manager name:

public String getManager(String deptName){

ViewObjectImpl vo=getGrapPopVO1();

ViewCriteria vc=vo.getViewCriteria("getManager");

vo.setNamedWhereClauseParam("pDeptName", deptName);

vo.applyViewCriteria(vc);

vo.executeQuery();

while(vo.hasNext()){

Row row=vo.next();

return row.getAttribute("Managername").toString();

}

return null;

}

32.Create Bean class in view controller

33.Right-click on the new **View Controller** project and select **new**. We're going to create a Bean Class to interact UI. Select **java** from the left side and **Java Package** on the right. Then click "**OK**".

| 🖕 New Gallery | | × |
|--|---|--|
| All Technologies Current Project Technologies This list is filtered according to the current profession Search | ogies roject's <u>selected technologies</u> . | Show All Descriptions |
| | Java Class Java Interface Java Package Opens the Create Package dialog, in which you To enable this option, you must select a projet the Application Navigator. Annotation Enum Java Class Diagram | ou define a new empty package. act or a package within a project in |
| Help | | OK Cancel |

34. Metion The package name as beans then click "OK".

| Create Java Package |
|--|
| Enter the name and source directory for the new package. |
| Package Name beans |
| Source Directory |
| E:\JDEV\mywork\GrapWithColors\ViewController\src Browse |
| Help OK Cancel |

35.**Right-click** on the new **beans** package and select **new**.. Select **java** from the left side and **Java Class** on the right. Then click **"OK**".

| 🖕 New Gallery | | |
|---|--|-----------------------|
| All Technologies Current Project Technologies This list is filtered according to the current p | ogies roject's <u>selected technologies</u> . | |
| <u>Categories:</u> General Connections Deployment Descriptors Deployment Profiles Diagrams Projects XML Web Tier Applet HTML JSF JSP Servlets All Items | Items: Java Class Opens the Create Java Class dialog, in the new class. To enable this option, you must select Application Navigator. Java Interface Java Package Annotation Enum Java Class Diagram | Show All Descriptions |
| Help | | OK Cancel |

36. Metion your class name as GraphBean then click "OK".

| Create J | ava Class | | |
|------------------|----------------------------------|--------------------|--------|
| Enter the | details of your new class. | | |
| | | | |
| <u>N</u> ame: | GraphBean | | |
| <u>P</u> ackage: | beans | | Q, |
| <u>E</u> xtends: | java.lang.Object | | Q, |
| _ Optional | Attributes | | |
| Implen | nents: | | + 🗶 |
| | | | |
| | | | |
| | | | |
| Acces | s Modifiers | Other Modifiers | |
| <u>о</u> р Ор | upiic ackage protected | e> <ivone></ivone> | |
| | | ⊖ <u>f</u> inal | |
| 🔽 Cor | structors from Superclass | | |
| 🗹 Imp | lement A <u>b</u> stract Methods | | |
| <u>M</u> air | n Method | | |
| Hel | P | ОК | Cancel |

37.In GraphBean.java we need to write following logic to create graph. 2.Mention Different colors and popup logic in bean: a)Different color bars Logic. b)Popup box logic in Bean. In GraphBean.java Code: package beans; import com.tad.model.AppModuleImpl; import java.util.ArrayList; import java.util.List; import javax.faces.application.FacesMessage; import javax.faces.context.FacesContext; import oracle.adf.view.faces.bi.event.ClickEvent; import oracle.dss.dataView.Attributes; import oracle.dss.dataView.ComponentHandle; import oracle.dss.dataView.DataComponentHandle; import oracle.jbo.client.Configuration;

```
public class GraphBean {
```

```
public GraphBean() {
```

```
super();
```

```
}
```

```
public static void main(String[] args) {
  GraphBean graphBean = new GraphBean();
  graphBean.getListObject2();
```

```
}
```

```
private List<Object[]> listObject2=new ArrayList<Object[]>();
```

```
public void setListObject2(List<Object[]> listObject2) {
```

```
this.listObject2 = listObject2;
```

}

```
public List<Object[]> getListObject2() {
```

try{

int j=0;

AppModuleImpl impl =

(AppModuleImpl)Configuration.createRootApplicationModule("com.tad.model.AppModule",

"AppModuleLocal");

// listObject1 = impl.salaryGraph();

```
List<String> list= impl.deptGraph();
```

for(int i=0;i<list.size();i++){</pre>

//System.out.println(list.get(i));

j++;

```
String[] st=list.get(i).split(",");
```

Object[] obj1 = { st[0], "Series_"+j, Integer.parseInt(st[1]) };

listObject2.add(obj1);

}

System.out.println(impl.getEmployees("sales"));

```
System.out.println(impl.getManager("sales"));
```

System.out.println(list);

Configuration.releaseRootApplicationModule(impl, true);

```
}
```

catch(Exception e){

e.printStackTrace();

}

return listObject2;

}

```
public void onPieClick(ClickEvent clickEvent) {
```

```
String deptName = null;
```

```
ComponentHandle handle = clickEvent.getComponentHandle();
```

```
if (handle instanceof DataComponentHandle) {
```

DataComponentHandle dhandle = (DataComponentHandle)handle;

```
Attributes[] groupInfo = dhandle.getGroupAttributes();
```

```
if (groupInfo != null) {
```

```
for (Attributes attrs : groupInfo) {
```

deptName =

```
(String)attrs.getValue(Attributes.LABEL_VALUE);
```

```
}
```

```
}
```

```
AppModuleImpl impl =
```

(AppModuleImpl) Configuration.createRootApplicationModule ("com.tad.model.AppModule", and the second seco

```
"AppModuleLocal");
```

List<String> list=impl.getEmployees(deptName);

```
String managerName=impl.getManager(deptName);
```

```
Configuration.releaseRootApplicationModule(impl, true);
```

```
FacesContext ctx = FacesContext.getCurrentInstance();
```

```
FacesMessage msg =
```

```
new FacesMessage("Employees in "+ deptName+" Department : " +list);
```

```
FacesMessage msg1 =
```

new FacesMessage("Manager Name:"+ managerName);

```
msg.setSeverity(FacesMessage.SEVERITY_INFO);
```

```
msg1.setSeverity(FacesMessage.SEVERITY_INFO);
```

```
ctx.addMessage(null, msg);
```

```
ctx.addMessage(null, msg1);
```

```
}
```

}

```
.
```

```
}
```

```
a)Different color bars Logic.
```

```
private List<Object[]> listObject2=new ArrayList<Object[]>();
```

```
public void setListObject2(List<Object[]> listObject2) {
```

```
this.listObject2 = listObject2;
```

}

```
public List<Object[]> getListObject2() {
```

try{

```
int j=0;
```

```
AppModuleImpl impl =
```

(AppModuleImpl) Configuration.createRootApplicationModule ("com.tad.model.AppModule", and a constraint of the second se

"AppModuleLocal");

// listObject1 = impl.salaryGraph();

List<String> list= impl.deptGraph();

for(int i=0;i<list.size();i++){</pre>

//System.out.println(list.get(i));

j++;

String[] st=list.get(i).split(",");

Object[] obj1 = { st[0], "Series_"+j, Integer.parseInt(st[1]) };

listObject2.add(obj1);

}

System.out.println(impl.getEmployees("sales"));

System.out.println(impl.getManager("sales"));

System.out.println(list);

Configuration.releaseRootApplicationModule(impl, true);

}
catch(Exception e){
 e.printStackTrace();
}
return listObject2;

}

1.In this existing code we just call the list which we prepared in Application module.

2. ADF barGraph tabular data attribute expecting List<Object[]>.

Object[] should contain x-axis, color, bars.

"maintenance", "Series_1", 7 :i)it is x axis value
ii)it is series name (here only one series is present and that is Series_1)
iii)it is data point value or y axis value which always be integer or double.

3.So we generated setter and getter attribute for private List<Object[]> listObject2=new ArrayList<Object[]>();

4.Getter method of the listObject1 we need to mention colors of the bars.

5. Here series_1 represent one color and series_2 represent another color ... series_3....etc.

6.so when we iterate the list which we prepared in Application module

We create one object array in this array we mentioned different color.

For example:

for(int i=0;i<list.size();i++){</pre>

j++;

String[] st=list.get(i).split(",");

Object[] obj1 = { st[0], "Series_"+j, Integer.parseInt(st[1]) };

listObject2.add(obj1);

}

7. Finally all the object arrays are added in list, each object array having puticular Department name, bar color, Department employee count.

b)Popup box logic in Bean:

when click the any bar automatically this method will be called.

```
public void onPieClick(ClickEvent clickEvent) {
```

String deptName = null;

ComponentHandle handle = clickEvent.getComponentHandle();

if (handle instanceof DataComponentHandle) {

DataComponentHandle dhandle = (DataComponentHandle)handle;

Attributes[] groupInfo = dhandle.getGroupAttributes();

if (groupInfo != null) {

for (Attributes attrs : groupInfo) {

deptName =

(String)attrs.getValue(Attributes.LABEL_VALUE);

}

}

AppModuleImpl impl =

(AppModuleImpl)Configuration.createRootApplicationModule("com.tad.model.AppModule",

"AppModuleLocal");

List<String> list=impl.getEmployees(deptName);

String managerName=impl.getManager(deptName);

Configuration.releaseRootApplicationModule(impl, true);

FacesContext ctx = FacesContext.getCurrentInstance();

FacesMessage msg =

new FacesMessage("Employees in "+ deptName+" Department : " +list);

FacesMessage msg1 =

new FacesMessage("Manager Name:"+ managerName);

```
msg.setSeverity(FacesMessage.SEVERITY_INFO);
```

msg1.setSeverity(FacesMessage.SEVERITY_INFO);

ctx.addMessage(null, msg);

ctx.addMessage(null, msg1);

```
}
```

}

1)From the existing code (String)attrs.getValue(Attributes.LABEL_VALUE); explains , Get label value of the particular bar that means department name.

2) FacesMessage msg =

new FacesMessage("Employees in "+ deptName+" Department : " +list);

FacesMessage msg1 =

new FacesMessage("Manager Name:"+ managerName);

explains Employess names list and manager name are added faces message.

38.To add following code in adf-config.xml file:

<?xml version="1.0" encoding="windows-1252" ?>

<adfc-configxmlns="http://xmlns.oracle.com/adf/controller" version="1.2">

<managed-bean id="__4">

<managed-bean-name id="__2">graph</managed-bean-name>

<managed-bean-class id="__1">beans.GraphBean</managed-bean-class>

<managed-bean-scope id="__3">request</managed-bean-scope>

</managed-bean>

</adfc-config>

Existing code explains graph is the alias name for beans.GraphBean java Class and this class will be in request scope.

39.**Right-click** on the new **Web Content** Folder and select **new**. Select **jsf**from the left side and **JSF Page** on the right. Then click "**OK**".

| 🖕 New Gallery | | × |
|---|---|-------------------------|
| All Technologies Current Project Technolo | gies | |
| This list is filtered according to the current pr | oject's <u>selected technologies</u> , | |
| Categories: | Items: | Show All Descriptions |
| | ADF Task Flow | |
| Connections | 📳 ADF Task Flow Template | |
| Deployment Descriptors Deployment Profiles | 骨 JSF Declarative Component | |
| Java Projects | JSF Page Launches the Create JSF Page dialog, in which you creat JavaServer Faces (.jsp or .jspx) file. | te a new skeleton |
| uXML ⊡Web Tier | To enable this option, you must select a project or a file Application Navigator. | within a project in the |
| Applet HTML | ISF Page Flow and Configuration (faces-config.xml) | |
| JSF | 🚰 JSF Page Fragment | |
| Serviets | 🛐 JSF Page Template | |
| ·····All Items | | |
| | 1 | |
| Help | | OK Cancel |

40.Metion The Page name as graphWithPopup.jspx then click "OK".

| 🖕 Create JSF Page 🛛 🔀 | |
|--|--|
| Enter the name, directory, and choose a type for the JSF Page. Optionally reference a <u>Page Template</u> to include its content in this page, or apply a <u>Quick</u> Start Lavout to add and configure an initial set of lavout components. | |
| Eile Name: grapWithPopup, jspx | |
| Directory: E:\JDEV\mywork\GrapWithColors\ViewController\public_html | |
| ✓ Create as XML Document (*.jspx) | |
| Render in Mobile Device | |
| Initial Page Layout and Content | |
| Islank Page | |
| O Page Template Oracle Three Column Layout 💌 | |
| O Quick Start Layout | |
| One Column (Stretched) Browse | |
| Page Implementation (UI components are not exposed in managed bean) | |
| Help OK Cancel | |

41. To add following code to create graph in graphWithPopup.jspx page

<?xml version='1.0' encoding='UTF-8'?>

<jsp:root xmlns:jsp="http://java.sun.com/JSP/Page" version="2.1"

xmlns:f="http://java.sun.com/jsf/core"

xmlns:h="http://java.sun.com/jsf/html"

xmlns:af="http://xmlns.oracle.com/adf/faces/rich"

xmlns:dvt="http://xmlns.oracle.com/dss/adf/faces">

<jsp:directive.page contentType="text/html;charset=UTF-8"/>

<f:view>

<af:document id="d1">

<af:messages id="m1"/>

<af:form id="f1">

<dvt:barGraph id="barGraph1" shortDesc="aa" threeDEffect="true"</pre>

subType="BAR_VERT_CLUST"

<dvt:background>

<dvt:specialEffects/>

</dvt:background>

<dvt:graphPlotArea/>

<dvt:seriesSet>

<dvt:series/>

</dvt:seriesSet>

<dvt:o1Axis/>

<dvt:y1Axis/>

<dvt:legendArea rendered="false"/>

<dvt:y1MajorTick tickStyle="GS_NONE"/>

<dvt:graphTitle text="Department Wise Employee Count Graph"/>

</dvt:barGraph>

</af:form>

</af:document>

</f:view>

</jsp:root>

- a) tabularData="#{graphBean.listObject2}" → Graph details
- b) clickListener="#{graphBean.onPieClick}"-→when the user click any bar this method will be invoked.

Output:



When user click the Marketing bar



When user click the Maintenance bar





Thank you, Keep Breathing & Keep Learning