



## Oracle APEX - Creating Master Detail & Tabular Form

### **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 Data forms. **Join our professional training program and learn from experts.**

### **History:**

<b>Version</b>	<b>Description Change</b>	<b>Author</b>	<b>Publish Date</b>
0.1	Initial Draft	Shiva Kant Pandey	Aug 2012
0.1	Review#1	Amit Sharma	Aug 2012

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BIS

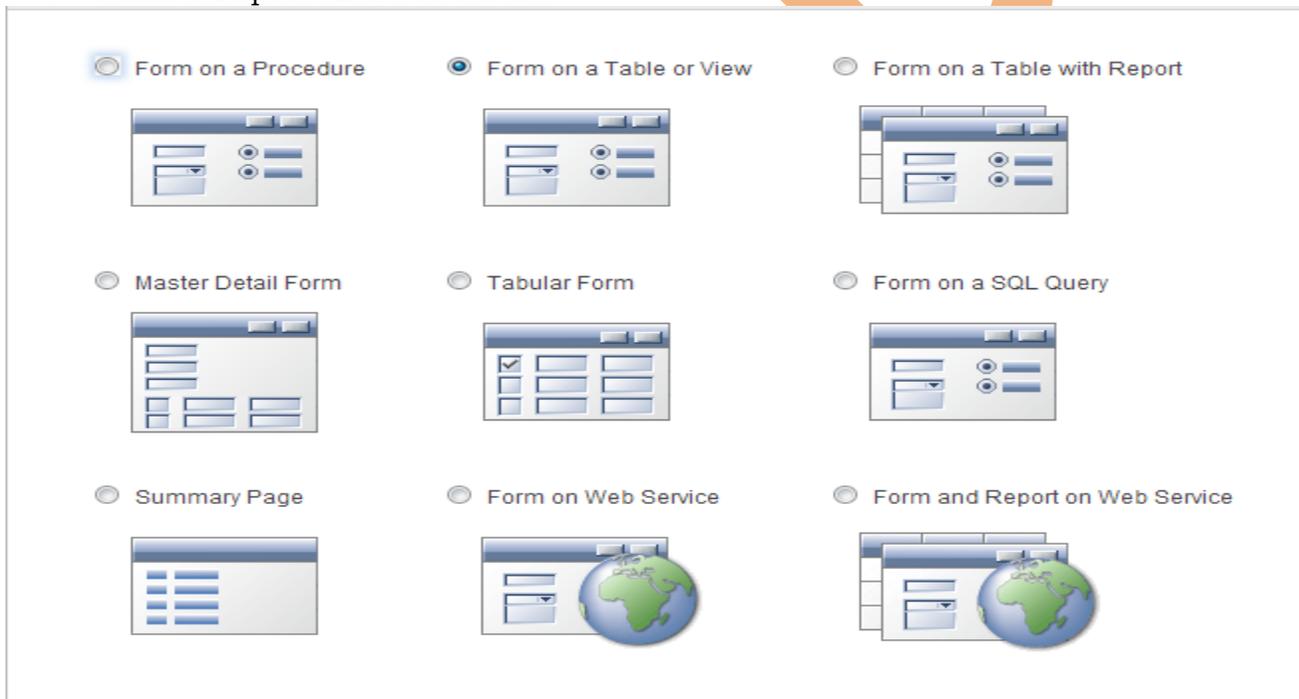
## Creating Master Detail Form on Oracle Apex through Application Builder

Form: A form in database is an interface that allows a user to have access to the data stored. It makes it possible for manipulations such as data entry, modification and even retrieval. Form have direct access to table used to store information. In simple words forms are basically used to insert data into the database.

### Types of Forms Created Through Oracle APEX Application Builder:

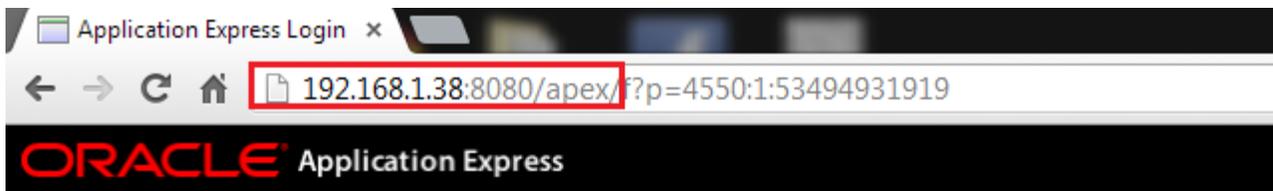
Forms are classified into following nine types in oracle Apex :

- Form on procedure
- form on a table or view
- Form on a Table with Report
- Master Detail Form
- Tabular Form
- Form on a SQL Query
- Summary Page
- Form on a web service
- Form & Report on a web service



### Step wise procedure of creating Master Detail Form :

**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

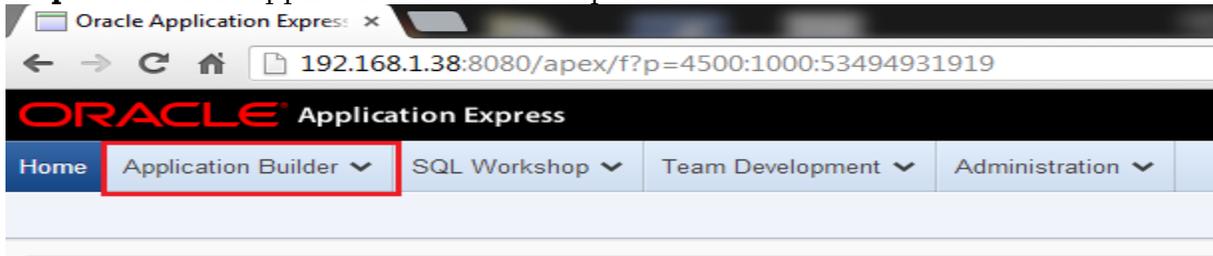
- Workspace = gosales

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

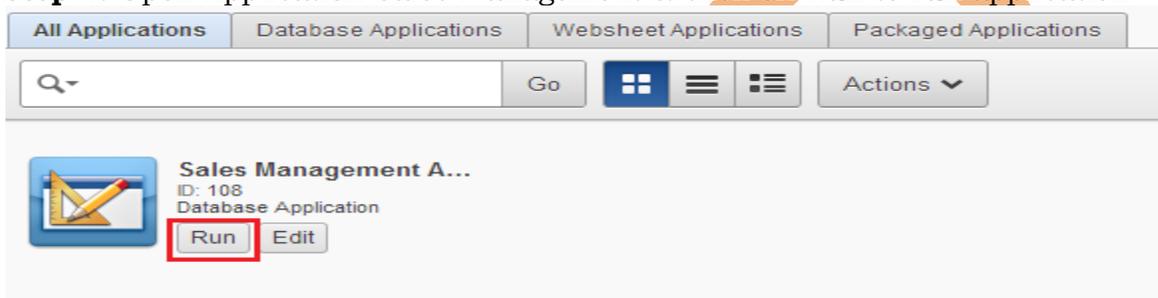
[www.bispsolutions.com](http://www.bispsolutions.com)

- username =developer1
- Password =\*\*\*\*\*
- Click on **Login to Application Express**

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

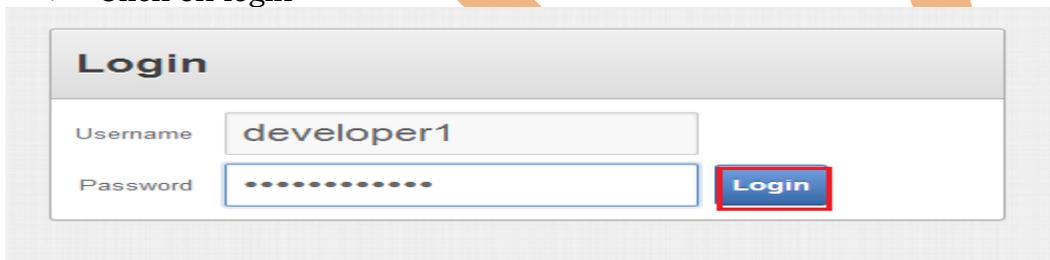


**Step 4:** Open Application Sales Management & click on Run to run application

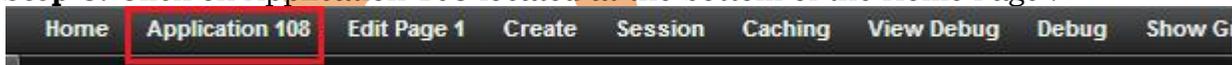


**Step 5:** To Login Inside Application Provide following credential

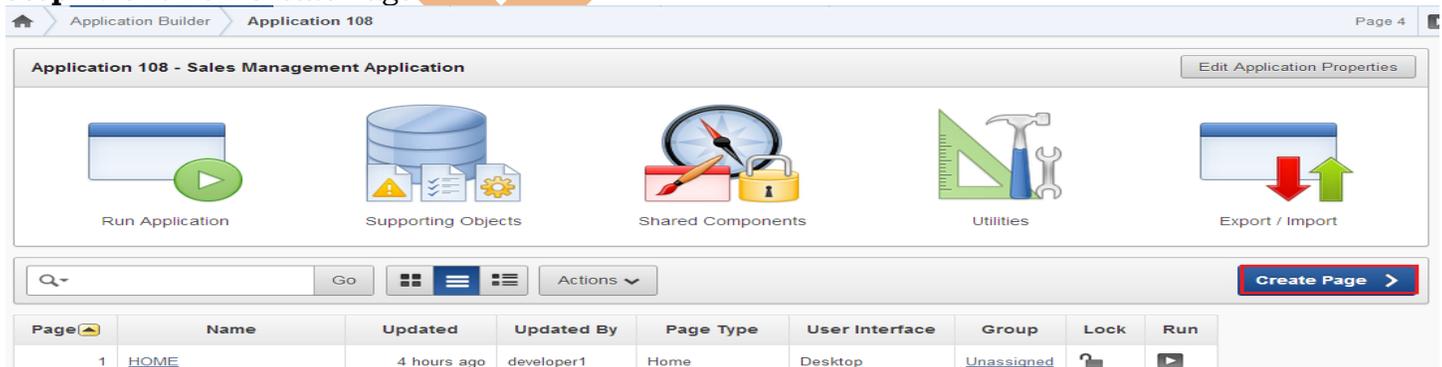
- Username =developer1
- Password = \*\*\*\*\*
- Click on login



**Step 6:** Click on Application 108 located at the bottom of the Home Page .



**Step 7:** Click on Create Page



**Step 8:** To create a new form put radio button on Form & then click on Next button

Application: 108 - Sales Management Application

\* User Interface  Desktop

Select a page type:

Blank Page     Multiple Blank Pages     Report     Form

**Step 9:** Choose Master Detail Form & then click on Next

Form on a Procedure     Form on a Table or View     Form on a Table with Report

Master Detail Form     Tabular Form     Form on a SQL Query

**Step 10:** Select Table or View which contains the columns to be included in the master page. So select columns like product\_brand\_code & product\_brand\_en & then click on Next

Select the table or view which contains the columns to be included in the master page.

\* Table / View Owner: GOSALES

\* Table / View Name: PRODUCT\_BRAND (table)

\* Select Columns:

PRODUCT_BRAND_DE	PRODUCT_BRAND_CODE
PRODUCT_BRAND_FR	PRODUCT_BRAND_EN
PRODUCT_BRAND_JA	
PRODUCT_BRAND_CS	
PRODUCT_BRAND_DA	
PRODUCT_BRAND_EL	
PRODUCT_BRAND_ES	
PRODUCT_BRAND_FI	
PRODUCT_BRAND_HU	

Use User Interface Defaults:  No     Yes

> User Interface Defaults

**Step 11:** Now select the table or view which contain the column to be included in the detail page . So select following :

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

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

- ❖ Table or View Owner = GOSALES
- ❖ Table or View name = PRODUCT
- ❖ select columns = product\_number , base\_product\_number , introduction\_date , discontinued\_date , product\_type\_code , product\_color\_code , product\_size\_code , product\_brand\_code
- ❖ Then click on Next

Select the table or view which contains the columns to be included in the detail page.

Master Table: GOSALES.PRODUCT\_BRAND

Show Only Related Tables:  No  Yes

Table / View Owner: GOSALES

Table / View Name: PRODUCT

\* Select Columns

PRODUCT_IMAGE	PRODUCT_NUMBER
GROSS_MARGIN	BASE_PRODUCT_NUMBER
PRODUCTION_COST	INTRODUCTION_DATE
	DISCONTINUED_DATE
	PRODUCT_TYPE_CODE
	PRODUCT_COLOR_CODE
	PRODUCT_SIZE_CODE
	PRODUCT_BRAND_CODE

**Step 12:** Choose Primary Key Type for both master & detail for example

For Master Table

- ❖ Primary Key type = put radio button on select primary key column(s)
- Primary key column 1 = Product\_brand\_code

For Slave Table

- ❖ Primary Key type = put radio button on select primary key column(s)
- Primary key column 1 = Product\_number

& then click on Next

Forms perform insert, update and delete operations on table rows in the database. The rows are identified using either a primary key defined on the table, or the ROWID pseudo column, which uniquely identifies a row in a table. Select "Managed by Database" if you would like to use the ROWID. Otherwise select the primary key column(s) defined for your table. Forms support up to two columns in the primary key. For tables using primary keys with more than two columns, the ROWID option should be used.

Master Table: GOSALES.PRODUCT\_BRAND

\* Primary Key Type:  Managed by Database (ROWID)  Select Primary Key Column(s)

\* Primary Key Column 1: PRODUCT\_BRAND\_CODE

Primary Key Column 2: - Select Column -

---

Detail Table: GOSALES.PRODUCT

\* Primary Key Type:  Managed by Database (ROWID)  Select Primary Key Column(s)

\* Primary Key Column 1: PRODUCT\_NUMBER

Primary Key Column 2: - Select Column -

**Step 13:** There are three types of Source Type for master 1) Existing trigger 2) Custom PL/SQL function

3) Existing Sequence. So here put radio button on Existing Trigger & click on Next

Table Name: **GOSALES.PRODUCT\_BRAND**  
 Primary Key Column 1: **PRODUCT\_BRAND\_CODE**

\* Primary Key Source:

Existing trigger       Custom PL/SQL function       Existing sequence

**Step 14:** There are three types of Source Type for detail 1) Existing trigger 2) Custom PL/SQL function 3) Existing Sequence. So here put radio button on Existing Trigger & click on Next

Select the method by which the detail table primary key is populated.

- Choose Existing Trigger if there is already a trigger to populate the primary key.
- Choose Custom PL/SQL Function to define custom PL/SQL logic to generate the primary key value.
- Choose Existing Sequence if an existing sequence will be used to generate the primary key.

Table Name: **GOSALES.PRODUCT**  
 Primary Key Column 1: **PRODUCT\_NUMBER**

\* Primary Key Source:

Existing trigger       Custom PL/SQL function       Existing sequence

**Step 15:** Select following to determine whether to include master row navigation :

- ❖ Include master row navigation ? = YES
- ❖ master row navigation order = Product\_brand\_en
- ❖ secondary navigation order = select column if required
- ❖ Include master report ?= Yes

Navigation buttons: < Cancel      Finish      **Next >**

Determine whether to include master row navigation. If you include master row navigation, define navigation order column(s). If a navigation order column is not defined, the master update form will navigate by the primary key column.

By default, this wizard creates a master report page. You can choose to not create master report page if you already have a report page.

Master Table: **GOSALES.PRODUCT\_BRAND**

Include master row navigation? **Yes** ▼

Master Row Navigation Order: **PRODUCT\_BRAND\_EN** ▼

Secondary Navigation Order: - Select Column - ▼

Include master report?       No       Yes

**Step 16:** Build master detail with either on same page or on separate page , so put radio button on Edit detail on separate page .

Build Master Detail with:

Edit detail as tabular form on same page
  Edit detail on separate page



**Step 17:** This page specifies master & detail page information . If the page you specify do not exist, the page will be created for you . click on **Next**

This page specifies master and detail page information. If the pages you specify do not exist, the pages will be created for you.

Master Table: GOSALES.PRODUCT\_BRAND

Detail Table: GOSALES.PRODUCT

	* Page	* Page Title	* Region Title
Master	22	Product Brand	Product Brand
Detail	23	Master Detail	Product Brand
			Product
Detail 2	24	Product	Product

Breadcrumb - do not use breadcrumbs on page -

**Step 18:** Choose Tab Options

- ❖ Put radio button on Use an existing tab set and create a new tab within the existing tab set.
- ❖ New Tab Label = Master Detail Form

**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**

**Step 19:** Now check Summary & confirm selections & then click on **Create**

You have requested to create master detail pages with the following attributes. Please confirm your selections.

Application	108
Master Table	GOSALES.PRODUCT_BRAND
Master Display Column(s)	PRODUCT_BRAND_CODE PRODUCT_BRAND_EN
Detail Table	GOSALES.PRODUCT
Detail Display Column(s)	PRODUCT_NUMBER BASE_PRODUCT_NUMBER INTRODUCTION_DATE DISCONTINUED_DATE PRODUCT_TYPE_CODE PRODUCT_COLOR_CODE PRODUCT_SIZE_CODE PRODUCT_BRAND_CODE
Navigate master record by	PRODUCT_BRAND_EN
Include master report?	Yes
Master Detail Layout	Three page master detail

**Step 20:** The master detail pages have been created successfully so Click on Run Page



**The master detail pages have been created successfully.**

**Step 21:** Mater Detail form created successfully so on clicking on master detail form tab the master report will be display & so on clicking to Edit Link icon to see the detail of Hailstorm, Detail form will be display as shown in next step

HOME    Master Detail    Forms    Order    MD    **Master Detail Form**

**Product Brand**

Edit	Product Brand En
	Hailstorm
	Relief
	Alpha
	Antoni
	Epoch
	Navigator
	Relax
	Trakker
	Xray
	Unspecified
	TrailChef
	Star

**Step 22:** Now Detail Form contains complete information of Product as shown below in snap but client needs to view column headings clearly & also we need to display name of color , size , brand instead of their codes so to make detail form in well format **click on edit page at the bottom of same page to change page properties &** hence from there we can edit all aliases & provide proper select list to the columns .

HOME    Master Detail    Forms    Order    MD    **Master Detail Form**

**Product Brand**

Product Brand En  14 of 29

---

**Product**

Edit	Base Product Number	Introduction Date	Discontinued Date	Product Type Code	Product Color Code	Product Size Code	Product Brand Code
	45	20-MAR-14	20-APR-14	960	911	851	719
	107	13-JAN-04		969	905	852	719
	108	27-DEC-03		969	916	852	719
	101	15-DEC-03		968	923	851	719
	103	10-DEC-03		968	923	852	719
	105	27-DEC-03		969	905	851	719

**Step 23:** To Edit Items double click on P23\_PRODUCT\_BRAND\_CODE under Product Brand as shown below

The screenshot shows the Oracle APEX Page Editor interface. On the left, the 'Page Rendering' tree is expanded to show the 'Product Brand' region, which contains an 'Items' sub-region. The 'P23\_PRODUCT\_BRAND\_CODE' item is highlighted with a red box. On the right, the 'Page Processing' tree shows various processes and branches, including 'Go To Page 23' and 'Process Row of PRODUCT\_BRAND'.

**Step 24:** Click on Identification & Provide on **Display As = Number Field** then Click on **Apply Changes** .

The screenshot shows the 'Edit Page Item' dialog for the 'P23\_PRODUCT\_BRAND\_CODE' item. The 'Identification' tab is selected, and the 'Display As' dropdown is set to 'Number Field'. The 'Apply Changes' button is highlighted with a red box. The dialog also shows the page name '23 Master Detail' and the item name 'P23\_PRODUCT\_BRAND\_CODE'.

**Step 25:** Click on **Run** button

The screenshot shows the Oracle APEX interface with a success message: 'Page "23" item "P23\_PRODUCT\_BRAND\_CODE" processed.' The 'Run' button is highlighted with a red box. The interface also shows the page name 'Page 23' and a 'Utilities' dropdown menu.

**Step 26:** Look at the Product Brand Code it looks according our desire , Now to Create a New Product Brand fill all the required blank such as

- ❖ Product Brand Code = 10000093
- ❖ Product Brand = BISP1
- ❖ Then click on Create Button

Sales Management Application

developer1 Logout

HOME Master Detail Forms Order MD Master Detail Form

Product Brand

Product Brand Code 10000093

Product Brand BISP1

Cancel Create

**Step 27:** Now check Bisp1 under Product Brand & click on edit icon to Create Detail product for BISP1 Brand .

Product Brand

Edit	Product Brand
	Extreme
	Canyon Mule
	EverGlow
	Husky
	Granite
	Mountain Man
	Polar
	Edge
	Seeker
	Glacier
	BugShield
	Sun
	Course Pro
	bisp
	BISP1

< Previous row(s) 16 - 30 of 30

**Step 28:** Click on Create Button to create Products under Brand BISP1

Product Brand Cancel Delete Apply Changes < >

Product Brand Code

Product Brand

3 of 30

Product Create

No data found.

**Step 29 :** Now It will provide you a blank required fields to create product but before this add select list at the required columns therefore to change display type to select list's click on Edit Page 24 at the bottom of form page as shown below

## Sales Management Application

HOME Master Detail Forms Order MD Master Detail Form

**Product**

Product Number

Base Product Number

Introduction Date  

Discontinued Date  

Product Type Code \*

Product Color Code

Product Size Code

Product Brand Code 10000093

Home Application 108 **Edit Page 24** Create Session Caching View Debug Debug Show Grid Show Edit Links

**Step 30:** Change **Display As** to **Select List** & then click on **List of Values** tab

Application Builder Application 108 Page 24 Edit Page Item Page 24

Page Item: P24\_PRODUCT\_TYPE\_CODE

Cancel Delete Apply Changes < >

Show All Identification User Interface Grid Layout Label Settings List of Values Element Source Default Quick Picks Conditions Read Only Security Configuration Help Text Comments

Identification

Page: 24 Product

\* Name P24\_PRODUCT\_TYPE\_CODE

Display As Select List

Text , Number , Date , Textarea , Select List , Radio , Popup List of Values , Checkbox , Display Only , Hidden

When List of Value tab is clicked then it is asked for following detail :

- Named LOV = PRODUCT\_TYPE\_LIST
- Display Extra values = Yes
- Display Null Values = Yes
- Null Display value = -----
- Click on Forward button

Page Item: P24\_PRODUCT\_TYPE\_CODE

Cancel Delete Apply Changes < >

Show All Identification User Interface Grid Layout Label Settings List of Values Element Source Default Quick Picks Conditions Read Only Security Configuration Help Text Comments

List of Values

Named LOV PRODUCT\_TYPE\_LIST

Display Extra Values Yes

Display Null Value Yes

Null Display Value ----- Null Return Value

Cascading LOV Parent Item(s)

List of values definition

**NOTE :** In previous Document it is mentioned that how to create Select List & also Created Some Select Lists from Lookup Tables .

**Step 31:** Change **Display As** to **Select List** & then click on **List of Values** tab

Page Item: P24\_PRODUCT\_COLOR\_CODE

Cancel Delete Apply Changes < >

Show All Identification User Interface Grid Layout Label Settings List of Values Element Source Default Quick Picks Conditions Read Only Security Configuration Help Text Comments

Identification

Page: 24 Product

\* Name P24\_PRODUCT\_COLOR\_CODE

Display As Select List

Text , Number , Date , Textarea , Select List , Radio , Popup List of Values , Checkbox , Display Only , Hidden

When List of Value tab is clicked then it is asked for following detail :

- Named LOV = PRODUCTCOLOR\_TYPE
- Display Extra values = Yes
- Display Null Values = Yes
- Null Display value = -----
- Click on Forward button

Page Item: P24\_PRODUCT\_COLOR\_CODE

Cancel Delete **Apply Changes** < >

Show All Identification User Interface Grid Layout Label Settings **List of Values** Element Source Default Quick Picks Conditions Read Only Security Configuration Help Text Comments

**List of Values** ^

Named LOV **PRODUCTCOLOUR\_TYPE** ▾

Display Extra Values **Yes** ▾

Display Null Value **Yes** ▾

Null Display Value **----** Null Return Value

Cascading LOV Parent Item(s)

List of values definition

**Step 32:** Change **Display As** to **Select List** & then click on **List of Values** tab

Page Item: P24\_PRODUCT\_SIZE\_CODE

Cancel Delete **Apply Changes** < >

Show All Identification User Interface Grid Layout Label Settings **List of Values** Element Source Default Quick Picks Conditions Read Only Security Configuration Help Text Comments

**Identification** ^

Page: 24 Product

\*Name P24\_PRODUCT\_SIZE\_CODE

Display As **Select List** ▾

Text , Number , Date , Textarea , Select List , Radio , Popup List of Values , Checkbox , Display Only , Hidden

When List of Value tab is clicked then it is asked for following detail :

- Named LOV = PRODUCTSIZE\_LIST
- Display Extra values = Yes
- Display Null Values = Yes
- Null Display value = -----
- Click on Apply Changes

Page Item: P24\_PRODUCT\_SIZE\_CODE

Cancel Delete **Apply Changes** <

Show All Identification User Interface Grid Layout Label Settings **List of Values** Element Source Default Quick Picks Conditions Read Only Security Configuration Help Text

**List of Values** ^

Named LOV **PRODUCTSIZE\_LIST** ▾

Display Extra Values **Yes** ▾

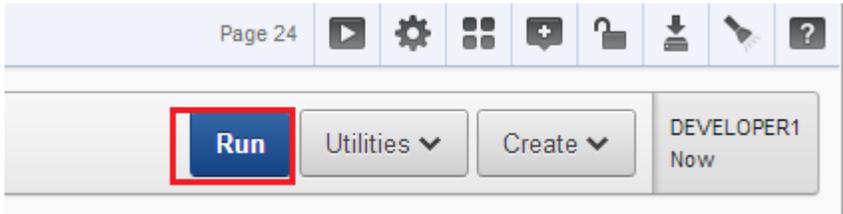
Display Null Value **Yes** ▾

Null Display Value **----** Null Return Value

Cascading LOV Parent Item(s)

List of values definition

**Step 33:** Click on Run



Now again we come back to our Master Detail Form so you observe that we have successfully added select lists on few column fields for our ease of selection

### Sales Management Application

HOME Master Detail Forms Order MD Master Detail Fo

#### Product

Product Number	<input type="text"/>
Base Product Number	<input type="text"/>
Introduction Date	<input type="text"/>
Discontinued Date	<input type="text"/>
Product Type Code *	<input type="text"/>
Product Color Code	<input type="text"/>
Product Size Code	<input type="text"/>
Product Brand Code	<input type="text"/>

**Step 34:** Now to Create New Product fill all the Require fields & Click on Create Button

### Sales Management Application

developer1 Logout

HOME Master Detail Forms Order MD Master Detail Form

#### Product

Cancel Create

Product Number	<input type="text" value="003"/>
Base Product Number	<input type="text" value="46"/>
Introduction Date	<input type="text" value="28-Mar-14"/>
Discontinued Date	<input type="text" value="29-Mar-14"/>
Product Type Code *	<input type="text" value="Eyewear"/>
Product Color Code	<input type="text" value="Multicolored"/>
Product Size Code	<input type="text" value="Large"/>
Product Brand Code	<input type="text" value="10000093"/>

Observe that Action Processed successfully means that new product created under brand BISP1 also click on Edit Page 23 at the bottom of same page to edit page property

## Product Brand

Product Brand Code

Product Brand

3 of 30

## Product

Edit	Base Product Number	Introduction Date	Discontinued Date	Product Type Code	Product Color Code	Product Size Code	Product Brand Code
	45	28-MAR-14	29-MAR-14	955	918	850	10000093
	46	28-MAR-14	29-MAR-14	961	917	840	10000093

1 - 2

**Edit Page 23** Create Session Caching View Debug Debug Show Grid Show Edit Links

**Step 35:** Explore Product & then double click on Product\_type\_code under Report Columns

Application Builder > Application 108 > Page 23

23 Go < > [Grid Icon] [List Icon]

### Page Rendering

- [-] P23\_PRODUCT\_BRAND\_CODE\_PREV
- [-] P23\_PRODUCT\_BRAND\_CODE\_COUNT
- [-] Region Buttons
  - [-] CANCEL
  - [-] DELETE
  - [-] SAVE
  - [-] CREATE
  - [-] GET\_PREVIOUS\_PRODUCT\_BRAND\_CODE
  - [-] GET\_NEXT\_PRODUCT\_BRAND\_CODE
- [-] Product
  - [-] Report Columns
    - [-] PRODUCT\_NUMBER
    - [-] BASE\_PRODUCT\_NUMBER
    - [-] INTRODUCTION\_DATE
    - [-] DISCONTINUED\_DATE
    - [-] PRODUCT\_TYPE\_CODE**
    - [-] PRODUCT\_COLOR\_CODE
    - [-] PRODUCT\_SIZE\_CODE
    - [-] PRODUCT\_BRAND\_CODE
  - [-] Region Buttons

### Page Processing

- [-] After Submit
  - [-] Processes
  - [-] Branches
    - [-] Go To Page 23
    - [-] Go To Page 23
  - [-] Computations
    - [-] P24\_PRODUCT\_NUMBER
- [-] Validating
- [-] Processing
  - [-] Branches
  - [-] Processes
    - [-] Process Row of PRODUCT\_BRAND
    - [-] reset.page
- [-] After Processing
  - [-] Branches
    - [-] Go To Page 22
  - [-] AJAX Callbacks

**Step 36:** To change Column Attributes for Product\_Type\_Code

❖ First click on Column Definition & rename column Heading = **Product Type**

- ❖ Click on Column Attribute then set Display As = Display as Text (based on LOV, does not save state )
- ❖ Click on List of Values from header menu

Application Builder > Application 108 > Page 23 > Report Attributes > Column Attributes

Column Attributes: PRODUCT\_TYPE\_CODE

Cancel Apply Changes

Show All Column Definition Column Attributes List of Values Tabular Form Attributes Column Formatting Column Link Authorization Conditional Display Comments

Column Attributes

Display As Display as Text (based on LOV, does not save state)

Number / Date Format

Numeric format mask: 999G999G999G999G990

**Step 37:** When List of Value tab is clicked then it is asked for following detail :

- Named LOV = PRODUCT\_TYPE\_LIST
- Display Extra values = Yes
- Display Null Values = Yes
- Null Display value = -----
- Click on Forward button

Column Attributes: PRODUCT\_TYPE\_CODE

Cancel Apply Changes

Show All Column Definition Column Attributes List of Values Tabular Form Attributes Column Formatting Column Link Authorization Conditional Display Comments

List of Values

Named LOV PRODUCT\_TYPE\_LIST

Display Extra Values Yes Display Null Yes

Null display value ----- Null return value

**Step 37:** To change Column Attributes for Product\_Color\_Code

- ❖ First click on Column Definition & rename column Heading = **Product Color**
- ❖ Click on Column Attribute then set Display As = Display as Text (based on LOV, does not save state )
- ❖ Click on List of Values from header menu

Column Attributes: PRODUCT\_COLOR\_CODE

Cancel Apply Changes

Show All Column Definition Column Attributes List of Values Tabular Form Attributes Column Formatting Column Link Authorization Conditional Display Comments

Column Attributes

Display As Display as Text (based on LOV, does not save state)

Number / Date Format

**Step 38:** When List of Value tab is clicked then it is asked for following detail :

- Named LOV = PRODUCTCOLOUR\_LIST
- Display Extra values = Yes

- Display Null Values = Yes
- Null Display value = -----
- Click on Forward button

Column Attributes: PRODUCT\_COLOR\_CODE

Cancel Apply Changes < >

Show All Column Definition Column Attributes **List of Values** Tabular Form Attributes Column Formatting Column Link Authorization Conditional Display Comments

List of Values

Named LOV **PRODUCTCOLOUR\_TYPE**

Display Extra Values Yes Display Null Yes

Null display value ----- Null return value

**Step 39:** To change Column Attributes for Product\_size\_Code

- ❖ First click on Column Definition & rename column Heading = **Product Size**
- ❖ Click on Column Attribute then set Display As = Display as Text (based on LOV, does not save state )
- ❖ Click on List of Values from header menu

Column Attributes: PRODUCT\_SIZE\_CODE

Cancel Apply Changes <

Show All Column Definition **Column Attributes** **List of Values** Tabular Form Attributes Column Formatting Column Link Authorization Conditional Display Comments

Column Attributes

Display As **Display as Text (based on LOV, does not save state)**

Number / Date Format

Numeric format mask: 999G999G999G999G990

**Step 40:** When List of Value tab is clicked then it is asked for following detail :

- Named LOV = PRODUCTSIZE\_LIST
- Display Extra values = Yes
- Display Null Values = Yes
- Null Display value = -----
- Click on Forward button

Column Attributes: PRODUCT\_SIZE\_CODE

Cancel Apply Changes < >

Show All Column Definition Column Attributes **List of Values** Tabular Form Attributes Column Formatting Column Link Authorization Conditional Display Comments

List of Values

Named LOV **PRODUCTSIZE\_LIST**

Display Extra Values Yes Display Null Yes

Null display value ----- Null return value

**Step 41:** To change Column Attributes for Product\_Brand\_Code

- ❖ First click on Column Definition & rename column Heading = **Product Brand Name**
- ❖ Click on Column Attribute then set Display As = Display as Text (based on LOV, does not save state )

❖ Click on List of Values from header menu

Column Attributes: PRODUCT\_BRAND\_CODE Cancel Apply Changes ←

Show All Column Definition Column Attributes **List of Values** Tabular Form Attributes Column Formatting Column Link Authorization Conditional Display Comments

**Column Definition**

Column Name: PRODUCT\_BRAND\_CODE

Column Heading:

Show Column:  Heading Alignment: center

Compute Sum:  Column Alignment: right

Sortable Column:  Column Width:

Use As Row Header:  Include In Export:

**Column Attributes**

Display As:

Number / Date Format:

**Step 42:** When List of Value tab is clicked then it is asked for following detail :

- Named LOV = PRODUCTBRAND\_LIST
- Display Extra values = Yes
- Display Null Values = Yes
- Null Display value = ----
- Click on Apply Changes

Column Attributes: PRODUCT\_BRAND\_CODE Cancel Apply Changes ←

Show All Column Definition Column Attributes **List of Values** Tabular Form Attributes Column Formatting Column Link Authorization Conditional Display Comments

**List of Values**

Named LOV:

Display Extra Values:  Display Null:

Null display value:  Null return value:

List of values definition

**Step 43:** Click Again Apply changes

Region Definition Report Attributes Query Definition Print Attributes

Region Name: Product Cancel Apply Changes

Show All Column Attributes Layout and Pagination Sorting Messages Report Export Break Formatting External Processing

**Column Attributes**

Headings Type:  Column Names  Column Names (InitCap)  Custom  PL/SQL  None

**Step 44:** Report Attributes are updated now click on Run

Report attributes updated. Workspace GOSALES (Logout)

Administration Search Application Page 23

Run Utilities Create DEVELOPER1 Now

**Step 45:** Now Observe that Column attributes are updated & hence column aliases are in proper format also observe that names are displaying rather than codes .

## Sales Management Application

HOME Master Detail Forms Order MD Master Detail Form Tabular Form SQL FORM map

Product Brand

Product Brand Code 10000093

Product Brand BISP1

3 of 32

Product

Edit	Base Product Number	Introduction Date	Discontinued Date	Product Type	Product Color	Product Size	Product Brand Name
	2	28-MAR-14	29-MAR-14	Tents	Orange	Large	BISP1
	45	28-MAR-14	29-MAR-14	Lanterns	Orange	25-hour	BISP1
	46	28-MAR-14	29-MAR-14	Eyewear	Multicolored	Large	BISP1

## Creating Tabular Form on Oracle Apex Through Application Builder

### Step wise procedure of creating Tabular Form :

**Step 46:** Choose Tabular Form & then click on Next

Cancel Next

Form on a Procedure
  Form on a Table or View
  Form on a Table with Report

Master Detail Form
  Tabular Form
  Form on a SQL Query

**Step 47:** This wizard builds a form to perform update ,insert and delete operations on multiple rows in a database table

- ❖ Table or View Owner = GOSALES
- ❖ Table or View name = PRODUCT
- ❖ select columns = product\_number , base\_product\_number , introduction\_date , discontinued\_date ,product\_type\_code ,product\_color\_code , product\_size\_code ,product\_brand\_code
- ❖ Then click on Next

This wizard builds a form to perform update, insert, and delete operations on multiple rows in a database table.

\* Table / View Owner: GOSALES

\* Table / View Name: PRODUCT (table)

\* Select Columns:

- 11. PRODUCT\_IMAGE (Nvarchar2)
- 10. GROSS\_MARGIN (Float)
- 9. PRODUCTION\_COST (Number)

Allowed Operations: Update, Insert and Delete

Use User Interface Defaults:  No  Yes

#### Step 48: Choose Primary Key Type Tabular Form

- ❖ Primary Key type = put radio button on select primary key column(s)
- Primary key column 1 = Product\_number
- ❖ & then click on Next

Tabular forms perform insert, update and delete operations on table rows in the database. The rows are identified using either a primary key defined on the table, or the ROWID pseudo column, which uniquely identifies a row in a table. Select "Managed by Database" if you would like to use the ROWID. Otherwise select the primary key column(s) defined for your table. Tabular forms support up to two columns in the primary key. For tables using primary keys with more than two columns, the ROWID option should be used.

Owner: GOSALES

Table Name: PRODUCT

\* Primary Key Type:  Managed by Database (ROWID)  Select Primary Key Column(s)

\* Primary Key Column 1: 1. PRODUCT\_NUMBER (Number)

Primary Key Column 2: - Select Column -

**Step 49:** There are three types of Source Type 1) Existing trigger 2) Custom PL/SQL function 3) Existing Sequence. So here put radio button on Existing Trigger & click on Next

Table Owner: GOSALES

Table Name: PRODUCT

### Primary Key 1 Defaults

Primary Key Column 1: PRODUCT\_NUMBER

\* Source Type:

Existing trigger       Custom PL/SQL function       Existing sequence



**Step 50:** Select all columns because all columns we need to update & then click on Next

Owner: GOSALES

Table Name: PRODUCT

Primary Key Column 1: PRODUCT\_NUMBER

\* Updatable Columns

	<input checked="" type="checkbox"/> INTRODUCTION_DATE (Date)
	<input checked="" type="checkbox"/> DISCONTINUED_DATE (Date)
	<input checked="" type="checkbox"/> PRODUCT_TYPE_CODE (Number)
	<input checked="" type="checkbox"/> PRODUCT_COLOR_CODE (Number)
	<input checked="" type="checkbox"/> PRODUCT_SIZE_CODE (Number)
	<input checked="" type="checkbox"/> PRODUCT_BRAND_CODE (Number)
	<input checked="" type="checkbox"/> BASE_PRODUCT_NUMBER (Number)

**Step 51:** Fill all the required fields to create tabular form

- ❖ Owner= GOSALES
- ❖ Table Name = PRODUCT
- ❖ Page = 28
- ❖ Page Name = Update
- ❖ Region Title = Tabular Form
- ❖ Region Template = Hide & Show Region
- ❖ Report Template= Standard

If the page you specify does not exist, the page will be created.

Owner: GOSALES

Table Name: PRODUCT

\* Page: 28

\* Page Name: Update

\* Region Title: Tabular Form

\* Region Template: Hide and Show Region

Report Template: template: Standard

Breadcrumb: Breadcrumb

- ❖ Breadcrumb = Breadcrumb
- ❖ Entry Name = Update
- ❖ Parent Entry = HOME

### Create Breadcrumb Entry

Entry Name

Parent Entry

[No parent breadcrumb entry]

#### Select Parent Entry:

Name Page

38

1

### Step 52 : Choose Tab Options

- ❖ Put radio button on Use an existing tab set and create a new tab within the existing tab set.
- ❖ New Tab Label = Tabular Form
- ❖ Click on Next

< Cancel Next >

Page: 28

Tab Options:

Use an existing tab set and create a new tab within the existing tab set.

Do not use tabs

Use an existing tab set and reuse an existing tab within that tab set.

\* Tab Set

\* New Tab Label

> Tabs

### Step 53: Click on Next

< Cancel Next >

Page: 28

Owner: GOSALES

Table Name: PRODUCT

Cancel Button Label  Branch to Page

Submit Button Label  Branch to Page

Delete Button Label

Add Row Button Label

### Step 54: Now check Summary & confirm selections & then click on Create

You have requested to create a tabular form page with the following attributes. Please confirm your selections.

Application      **108**  
 Page              **28**  
 Page Name        **Update**  
 Region Title     **Tabular Form**  
 Tab Set          **TS1**  
 Tab Label        **Tabular Form**  
 Table Owner     **GOSALES**  
 Table Name      **PRODUCT**  
 Columns         **PRODUCT\_NUMBER**  
                   **INTRODUCTION\_DATE**  
                   **DISCONTINUED\_DATE**  
                   **PRODUCT\_TYPE\_CODE**  
                   **PRODUCT\_COLOR\_CODE**  
                   **PRODUCT\_SIZE\_CODE**  
                   **PRODUCT\_BRAND\_CODE**  
                   **BASE\_PRODUCT\_NUMBER**  
 Updateable Columns **INTRODUCTION\_DATE**  
                   **DISCONTINUED\_DATE**  
                   **PRODUCT\_TYPE\_CODE**  
                   **PRODUCT\_COLOR\_CODE**  
                   **PRODUCT\_SIZE\_CODE**

**Step 55:** Click on Run page



The tabular form has been created successfully.

**Step 56:** Tabular Form is created successfully & in this we can update several rows simultaneously.

**Sales Management Application** developer1 Logout

HOME Master Detail Forms Order MD Master Detail Form **Tabular Form**

HOME > Update

<input type="checkbox"/>	Product Number	Base Product Number	Introduction Date	Discontinued Date	Product Type Code	Product Color Code	Product Size Code	Product Brand Code
<input type="checkbox"/>	154151	45	20-MAR-14	20-APR-14	960	911	851	719
<input type="checkbox"/>	145140	145	01-JUL-06	01-AUG-06	960	902	851	754
<input type="checkbox"/>	129170	129	01-JAN-06		960	903	851	754
<input type="checkbox"/>	145150	145	01-JAN-03	31-DEC-04	960	918	852	754
<input type="checkbox"/>	145160	145	01-JAN-03	31-MAR-06	960	919	851	754
<input type="checkbox"/>	129180	129	01-JAN-03		960	922	851	754
<input type="checkbox"/>	145170	145	01-JAN-03		960	923	851	754
<input type="checkbox"/>	145180	145	01-APR-06		960	925	852	754
<input type="checkbox"/>	154110	154	01-JAN-03	31-JUL-06	960	903	851	757
<input type="checkbox"/>	144160	144	01-APR-06		960	903	852	758

row(s) 1 - 10 of 281

**Step 57:** Now To add Select lists on several columns use page property & then with the help of Column Attributes we can we can add select lists for various columns . I have already mentioned steps to add select list on master detail form so please take help with above master detail form .

Application Builder Application 108 Page 28

28 Go < > [List Icon] [Table Icon]

**Page Rendering**

- Update
  - Before Header
  - After Header
  - Before Regions
  - Regions
    - Body (3)
      - Tabular Form
        - Report Columns
          - [row selector]
          - PRODUCT\_NUMBER
          - PRODUCT\_NUMBER\_DISPLAY
          - BASE\_PRODUCT\_NUMBER
          - INTRODUCTION\_DATE
          - DISCONTINUED\_DATE
          - PRODUCT\_TYPE\_CODE
          - PRODUCT\_COLOR\_CODE
          - PRODUCT\_SIZE\_CODE
          - PRODUCT\_BRAND\_CODE
        - Region Buttons

**Page Processing**

- After Submit
  - Validating
    - Branches
    - Validations
      - INTRODUCTION\_DATE must be a valid date
      - DISCONTINUED\_DATE must be a valid date
      - PRODUCT\_TYPE\_CODE not null
      - PRODUCT\_TYPE\_CODE must be numeric
      - PRODUCT\_COLOR\_CODE must be numeric
      - PRODUCT\_SIZE\_CODE must be numeric
      - PRODUCT\_BRAND\_CODE must be numeric
      - BASE\_PRODUCT\_NUMBER must be numeric
  - Processing
    - Branches
    - Processes
      - ApplyMRU
      - ApplyMRD
  - After Processing
    - Branches

**Step 58:** Now finally after adding select lists & making display As Hidden for Product\_Number\_Display we obtain this tabular in a well format.

Tabular Form [Cancel] [Delete] [Submit]

Product Number	Base Product Number	Introduction Date	Discontinued Date	Product Type	Product Color	Product Size	Product Brand
154151	45	20-MAR-14	20-APR-14	Watches	Gold	Men's	Hailstorm
5	2	28-MAR-14	29-MAR-14	Tents	Orange	Large	BISP1
145140	145	01-JUL-06	01-AUG-06	Watches	Black	Men's	Epoch
129170	129	01-JAN-06		Watches	Blue	Men's	Epoch
145150	145	01-JAN-03	31-DEC-04	Watches	Orange	Women's	Epoch
145160	145	01-JAN-03	31-MAR-06	Watches	Pink	Men's	Epoch
129180	129	01-JAN-03		Watches	Red	Men's	Epoch
145170	145	01-JAN-03		Watches	Silver	Men's	Epoch
145180	145	01-APR-06		Watches	White	Women's	Epoch
154110	154	01-JAN-03	31-JUL-06	Watches	Blue	Men's	Trakker

row(s) 1 - 10 of 282 Next > [Add Row]