



Oracle Application Express: Developing Database Web Applications

Hands-On-Labs Guide

Unit 12: Using Themes and Theme Styles

This exercise includes two hands-on-labs.

HOL 12-1 uses the Demo Projects application.

HOL 12-2 uses the Budget App application.

HOL 12-1 Updating the Team Members Pages: In this hands-on lab, you create a Classic Report region and update the report template to use Cards. You also specify template options.

HOL 12-2 Creating and Using Theme Styles: In this hands-on lab, you use the Budget App application. You use the Theme Roller to save the changes made to the Theme Style and then enable users to apply this Theme Style in the running application.

HOL 12-1: Updating the Team Member Pages

In this lab, you update the Team Member pages by replacing the interactive report with a card region. This provides a directory of your team members' contact information and roles as though you had a stack of their business cards at hand.

1. In the Demo Projects application runtime environment, click **Team Members** in the navigation menu.
In the Developer Toolbar, click **Edit Page 2**.
2. Update the interactive report region title from **Proj Team Members** to **Team Members**.
3. This page is an interactive report. You want to convert the report type to a Classic Report type, so that you can utilize one of the built-in templates. Update the interactive report to a Classic Report, and apply the Cards template to display the team members in a more visually pleasing manner.
Click the **Team Members** region and input the following:
 - Identification: Type - select **Classic Report**
 - Source: Type – select **SQL Query**
4. In the SQL Query attribute, click the **Code Editor** button.

Region

Filter

Identification

Title Team Members

Type Classic Report

Source

Location Local Database

Type SQL Query

SQL Query

5. In the Code Editor window, delete the existing SQL Query and copy and paste the following code:

```
select id
, full_name card_title
, profile card_text
, nvl(email,' ') card_subtext
, dbms_lob.getlength('PHOTO_BLOB') card_initials
,
apex_util.prepare_url('f?p=||:APP_ID||:3:'||:APP_SESSION||':
::P3_ID:'||id) card_link
, photo_filename
, photo_mimetype
, photo_charset
, photo_last_updated
from demo_proj_team_members
order by created
```

Then, click **OK**.

Note: This SQL query uses specific column names, such as `card_title`, which correspond to the columns required for the Card template.

- The report region has the required Type and SQL Source, now the report needs to be enhanced to display an image and utilize the correct report template. The `DEMO_PROJ_TEAM_MEMBERS` table includes columns which store an image and the image's associated properties. You can use this information to show the team Member's stored image, instead of the member's initials in the cards report.

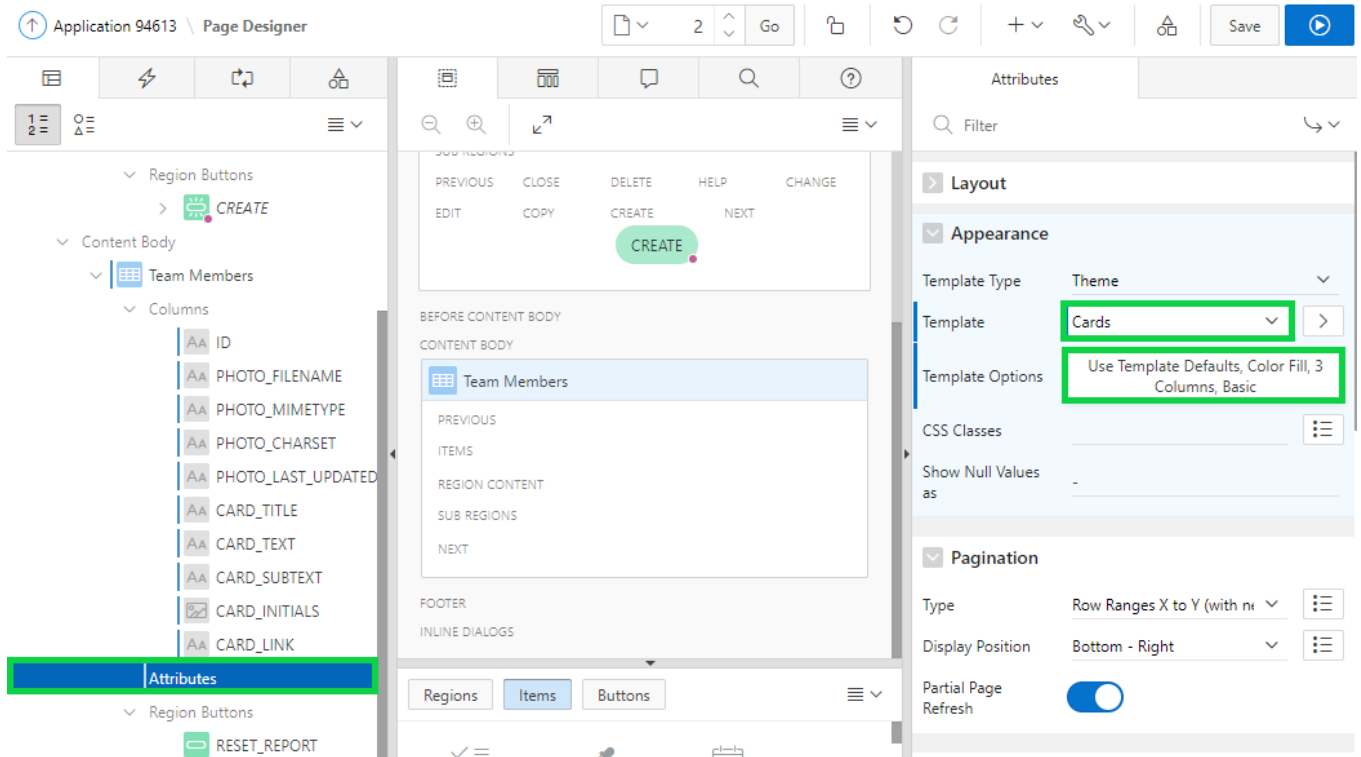
Under the **Rendering > Regions**, locate **Team Members**, and expand the **Columns** node. Select the **CARD_INITIALS** column, and input the following:

- Identification: Type - select **Display Image**
- BLOB Attributes: Table Name - select **DEMO_PROJ_TEAM_MEMBERS**
- BLOB Attributes: BLOB Column - select **PHOTO_BLOB**
- BLOB Attributes: Primary Key Column 1 - select **ID**
- BLOB Attributes: Mime Type Column - select **PHOTO_MIMETYPE**
- BLOB Attributes: Filename Column - select **PHOTO_FILENAME**
- BLOB Attributes: Last Updated Column - select **PHOTO_LAST_UPDATED**

The screenshot shows the Oracle APEX Page Designer interface for 'Application 94613 \ Page Designer'. The left pane shows the 'Team Members' region expanded to the 'Columns' node, with 'CARD_INITIALS' selected. The center pane shows a preview of the 'Team Members' region with a 'CREATE' button. The right pane shows the configuration for the 'CARD_INITIALS' column:

- Identification:**
 - Column Name: `CARD_INITIALS`
 - Type: **Display Image**
- BLOB Attributes:**
 - Table Owner: `DEMO_PROJ_TEAM_MEMBERS`
 - Table Name: `DEMO_PROJ_TEAM_MEMBERS`
 - BLOB Column: `PHOTO_BLOB`
 - Primary Key Column 1: `ID`
 - Primary Key Column 2: `- Select -`
 - Mime Type Column: `PHOTO_MIMETYPE`
 - Filename Column: `PHOTO_FILENAME`
 - Last Updated Column: `PHOTO_LAST_UPDATED`

7. Under Rendering, expand the **Team Members** region. Select **Attributes**. In the property editor, locate **Appearance**. For Template, select **Cards**. Click **Template Options**.



8. In the Template Options dialog:
- Icons - select **Display Initials**
 - Layout - select **4 Columns**
 - Body Text - select **3 Lines**
- Click **OK**.

Template Options

▼ Common

General

☒ Use Template Defaults

☐ Apply Theme Colors

☐ Display Subtitle

Style

Basic

▼

Icons

Display Initials

▼

Layout

4 Columns

▼

Body Text

3 Lines

▼

Icon Shape

Circle

▼

Animation

Color Fill

▼

▼ Advanced

Pagination Display

Default

▼

Cancel

OK

9. Click **Save and Run Page** to see the new cards.

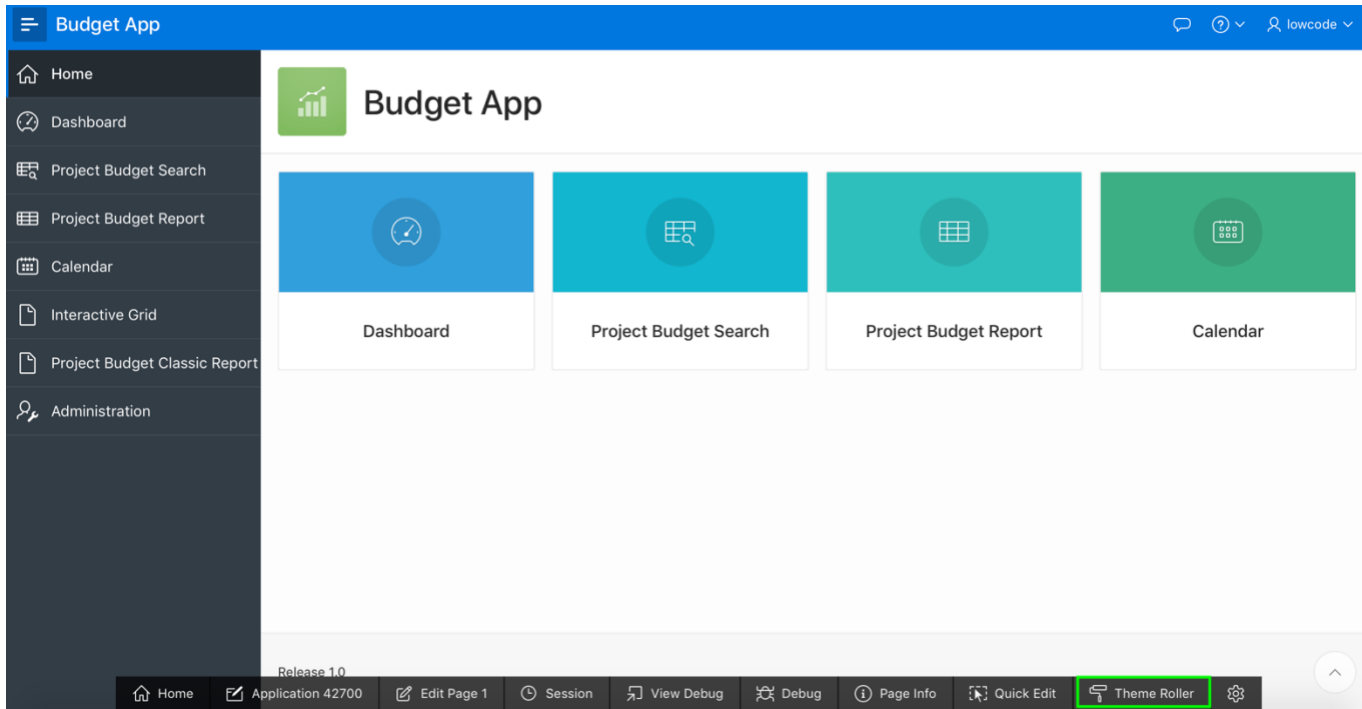
The screenshot displays the 'Team Members' page in an Oracle APEX application. The page features a red header bar with the title 'Demo Projects' and a user profile 'lowcode'. A left-hand navigation menu includes links for Home, Team Members (selected), Projects, Milestones, Tasks, Dashboard, and Administration. The main content area is titled 'Team Members' and contains a grid of 12 team member cards. Each card displays a profile picture, a name, a short bio, and an email address. A red 'Add Team Member' button is located in the top right corner of the grid area. At the bottom of the page, a dark footer bar contains various utility links and icons.

| Name | Bio | Email |
|-------------------|--|-------------------------|
| Lowcode | I'm the one who ran this data script to populate these demo tables. | |
| Lucille Beattie | I have extensive experience running development teams. If I can't bring in a project on | lucy.beattie@email.com |
| Nina Herschel | I'm a consummate team player who likes to explore and learn new things. My belief is to | nina.herschel@email.com |
| Tameka Hall | I am all business and thrive on developing the lowest-level code. Point me at some obtuse | tamika.hall@email.com |
| Eva Jelinek | I will tell you directly what I think and expect you to tell me the same. If you are sensitive | eva.jelinek@email.com |
| Mei Yu | I have extensive experience in all aspects of application development. If you need help | mei.yu@email.com |
| Madison Smith | Mady to my friends - I love being creative and coming up with beautiful solutions. | madison.smith@email.com |
| Tyson King | No problem too big, no problem too small! | alonso.king@email.com |
| Daniel James Lee | | |
| Brock Shilling | | |
| Miyazaki Yokohama | | |
| Bernard Jackman | | |

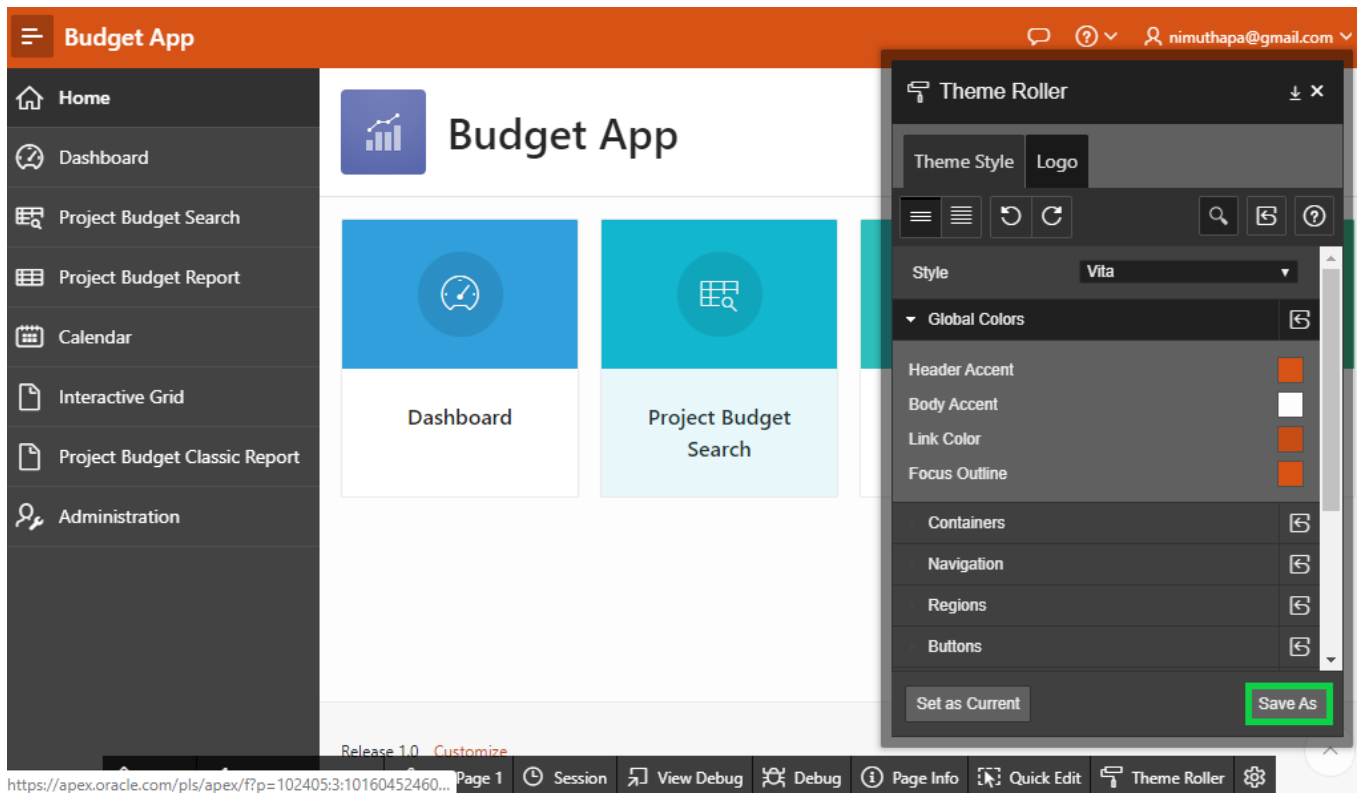
HOL 12-2: Using Themes and Theme Styles

In this hands-on lab, you use the Theme Roller to save a Theme Style. Then, you enable end users to apply this style while running the application.

1. Navigate to **App Builder** and then run the **Budget App** application.
In the Developer Toolbar, click **Theme Roller**.









2. The current Theme Style is Vita.
Under Global Colors, click the color swatch to select new colors.
To edit a specific component, expand a group and select new colors or styling of the component you wish to edit.
Modify the look by specifying colors of your choice and preview the changes. Once you are done, click **Save As**.



3. In the Save As dialog, enter **Vita (Copy)** for Style Name and click **Save**.
4. Click **OK**.
5. Click **Application < n >** in the Developer Toolbar.
In the application home page, click **Shared Components**.
Under User Interface, click **User Interface Attributes**.

Application 102405 \ Shared Components

| Application Logic | Security | Other Components |
|---|---|--|
|  Application Definition Attributes Application Items Application Processes Application Computations Application Settings Build Options |  Security Attributes Authentication Schemes Authorization Schemes Application Access Control Session State Protection Web Credentials > |  List of Values Plug-ins Component Settings Shortcuts Email Templates |
| Navigation | User Interface | Files |
|  Lists Navigation Menu Breadcrumbs Navigation Bar List |  User Interface Attributes Themes Templates |  Static Application Files Static Workspace Files |

6. Under User Interfaces, click the **Edit** icon for Desktop.

Application 102405 \ User Interfaces



Definition Security Globalization **User Interface**

Application 102405

Cancel Apply Changes

Show All User Interfaces General Properties Logo Favicon User Interface Detection

User Interfaces

| | Name | Type | Default | Auto Detect | Global Page | Theme | Theme Style |
|---|---------|---|---------|-------------|-------------|----------------------|--------------|
|  | Desktop |  | ✓ | | 0 | Universal Theme - 42 | Vita - Slate |

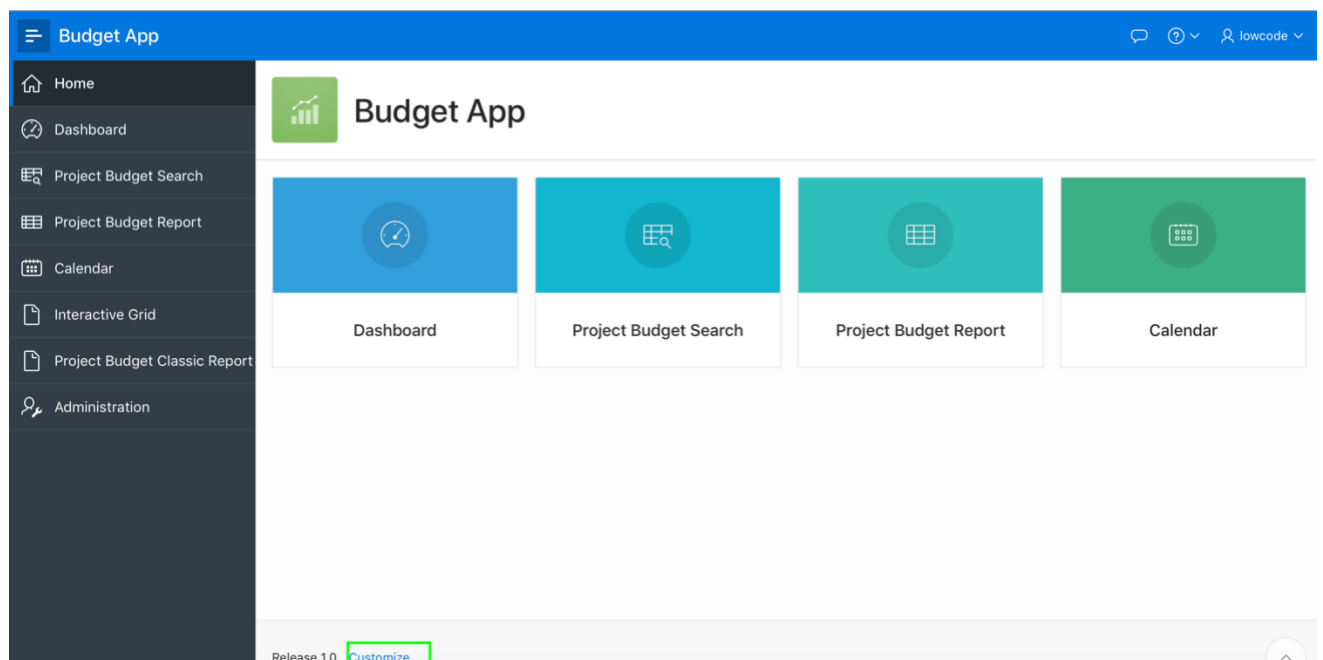
General Properties

7. Under Attributes, click **Enable End Users to Choose Theme Style**. Make sure this attribute is set to On.
 Notice that the new Theme Style you saved is displayed under Theme Style list.

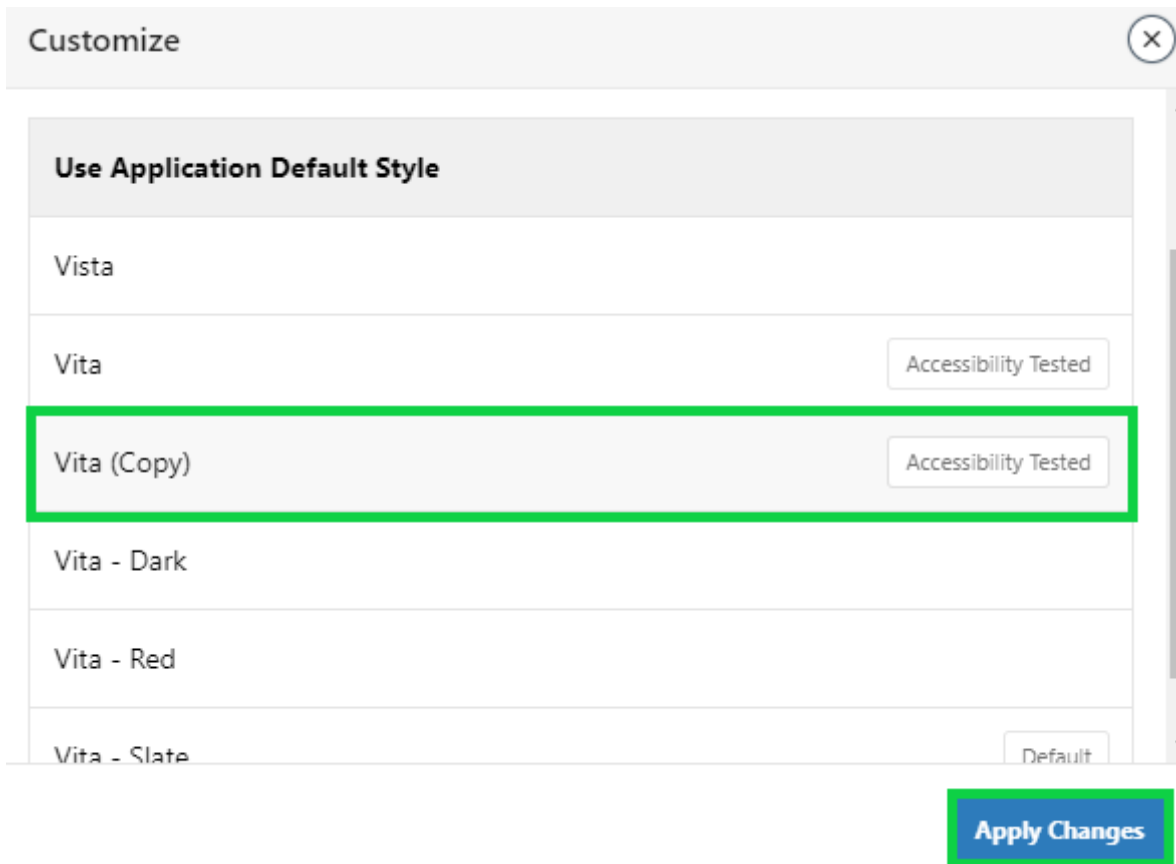
Click **Apply Changes**.

The screenshot shows the 'User Interface Details' configuration page in Oracle APEX. The 'Attributes' tab is active. The 'Enable End Users to choose Theme Style' toggle is highlighted with a green box. A dropdown menu is open for 'Theme Style', showing options: Vista, Vita (Copy) (highlighted with a blue box), Vita - Dark, and Vita - Red. Other settings like 'Auto Detect', 'Default', and 'Add "Built with APEX" to Footer' are also visible.

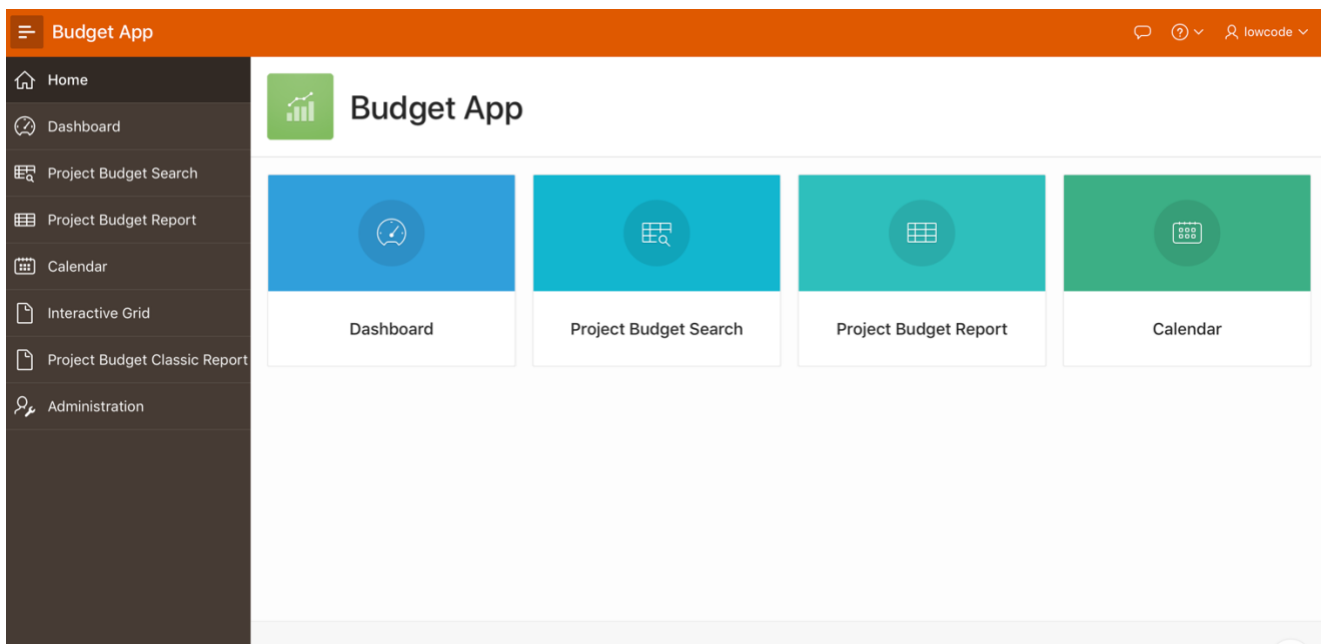
8. Now, run the application. At the bottom of the page, click the **Customize** link.



9. Using the Customize dialog, users can specify their Theme Style while running the application. Select the Theme Style that you saved in step 3 above and click **Apply Changes**.



10. The Theme Style is applied, and you see a message that says **Preferences changed for user < username >**.





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