

ORACLE®

Oracle APEX Hands-On Lab

Creating an App from a Spreadsheet



Step Up to Modern Cloud Development

July, 2019 (v19.1.3)

Overview

This lab walks you through uploading a spreadsheet into an Oracle database table, and then creating an application based on this new table. You will then play with the Interactive Report and improve the attached form. Lastly, you will add a Calendar page and then link it to the existing form page.

Rather than trying to email a spreadsheet to gather information from different people, simply create an app in minutes, and email the URL. This single source-of-truth, multi-user, secured, scalable app is so much better than having 20 (incomplete) spreadsheets!

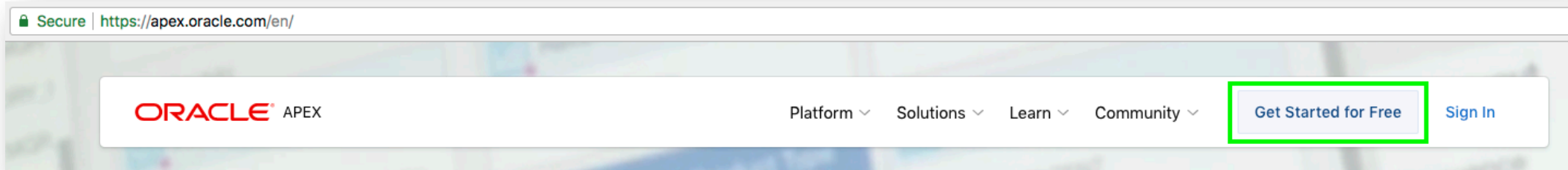
Getting Started

Obtaining a Workspace

{Note: If you already have a workspace on <https://apex.oracle.com> then you can skip this section and move to Section 2}

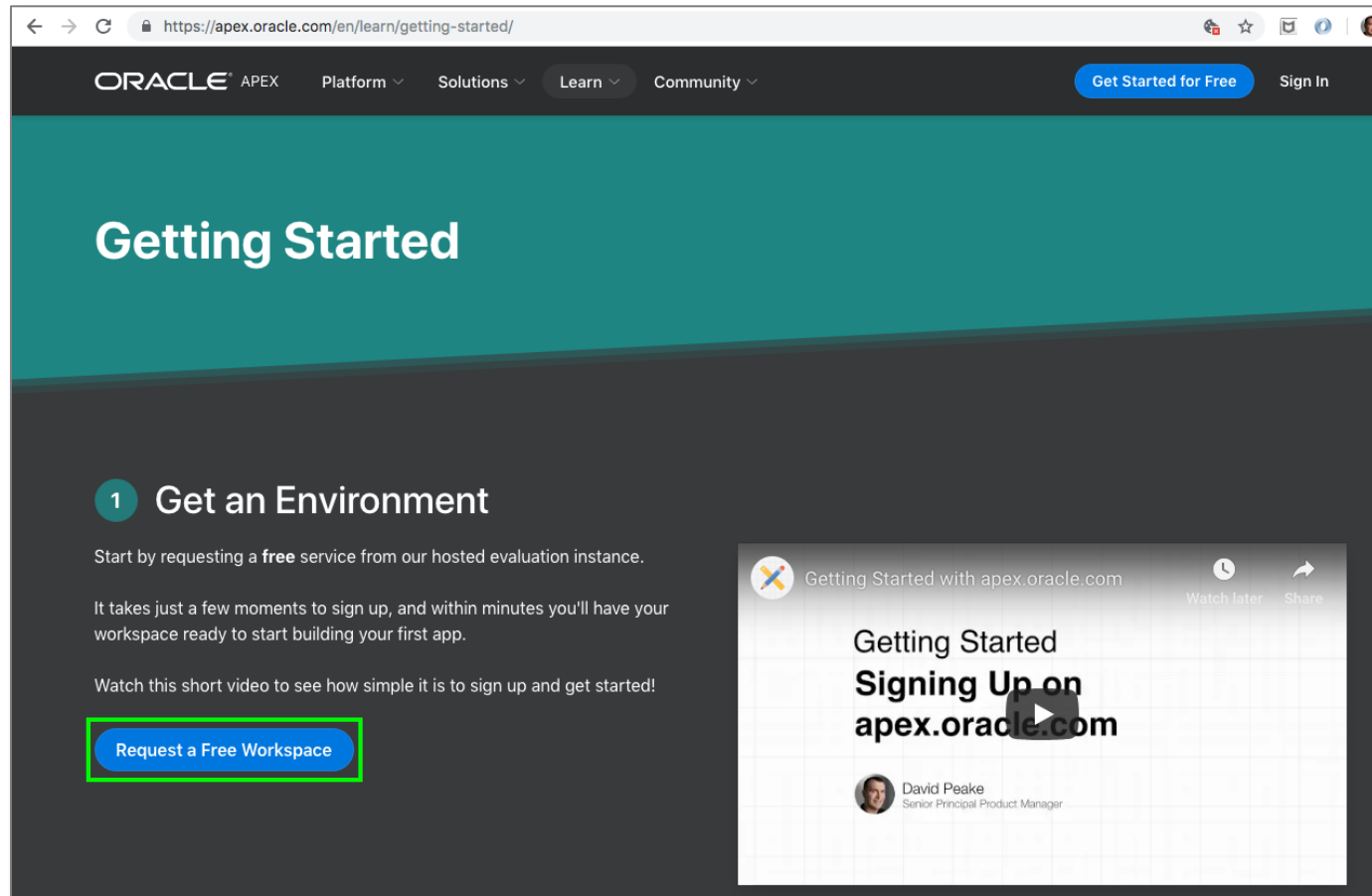
Step 1.1a

- Go to <https://apex.oracle.com>
- Click **Get Started for Free**



Step 1.1b

- Click Request a Free Workspace



ORACLE APEX Platform Solutions Learn Community [Get Started for Free](#) [Sign In](#)

Getting Started

1 Get an Environment

Start by requesting a **free** service from our hosted evaluation instance.

It takes just a few moments to sign up, and within minutes you'll have your workspace ready to start building your first app.

Watch this short video to see how simple it is to sign up and get started!

[Request a Free Workspace](#)

Getting Started with apex.oracle.com [Watch later](#) [Share](#)

Getting Started Signing Up on apex.oracle.com

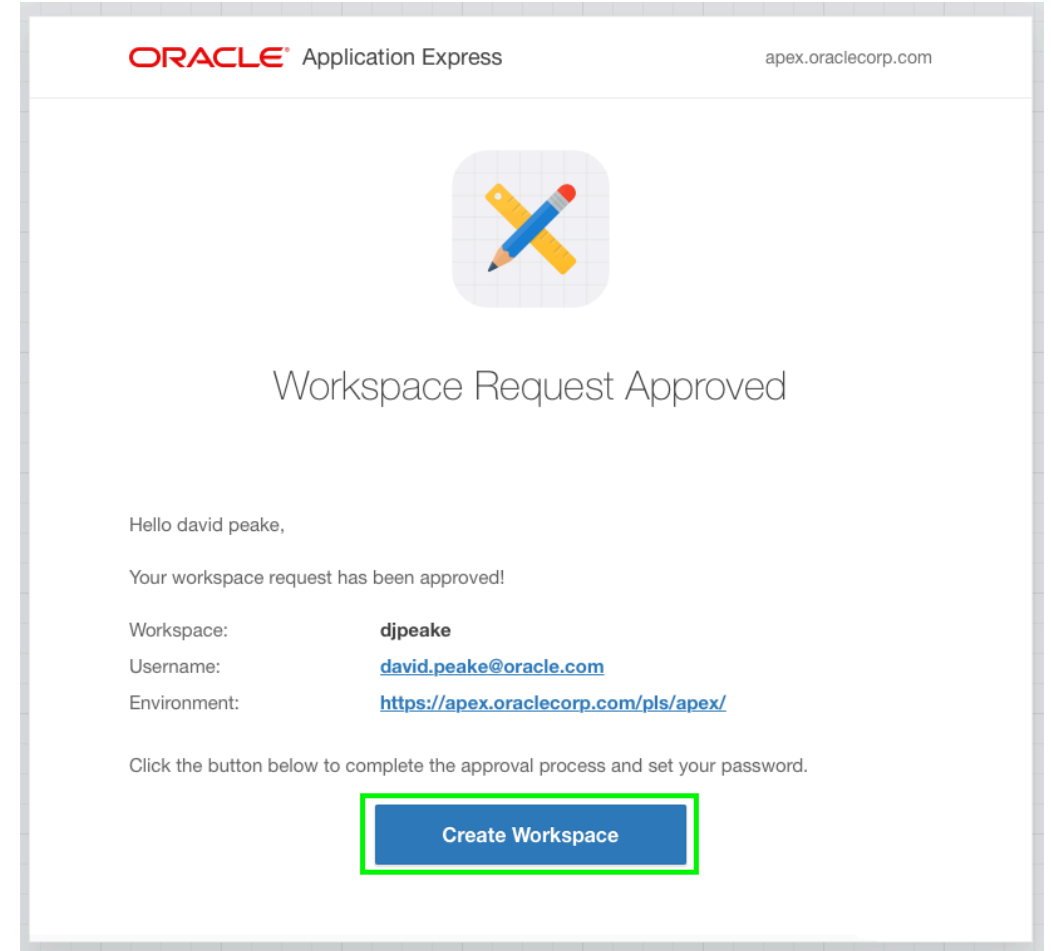
David Peake
Senior Principal Product Manager

Step 1.2

- What Type of Workspace - Click **Application Development**
- Enter your Identification details – First Name, Last Name, Email, Workspace
{Note: For workspace enter a unique name, such as first initial and last name}
- Enter Schema details – Schema Name
{Note: For schema name enter the same name as you entered for workspace}
- Complete the wizard

Step 1.3

- Check your email
You should get an email from oracle-application-express_ww@oracle.com within a few minutes
{Note: If you don't get an email go back to Step 1 and make sure to enter your email correctly}
- Click **Create Workspace**
- Click **Continue to Log In Screen**
- Reset your password

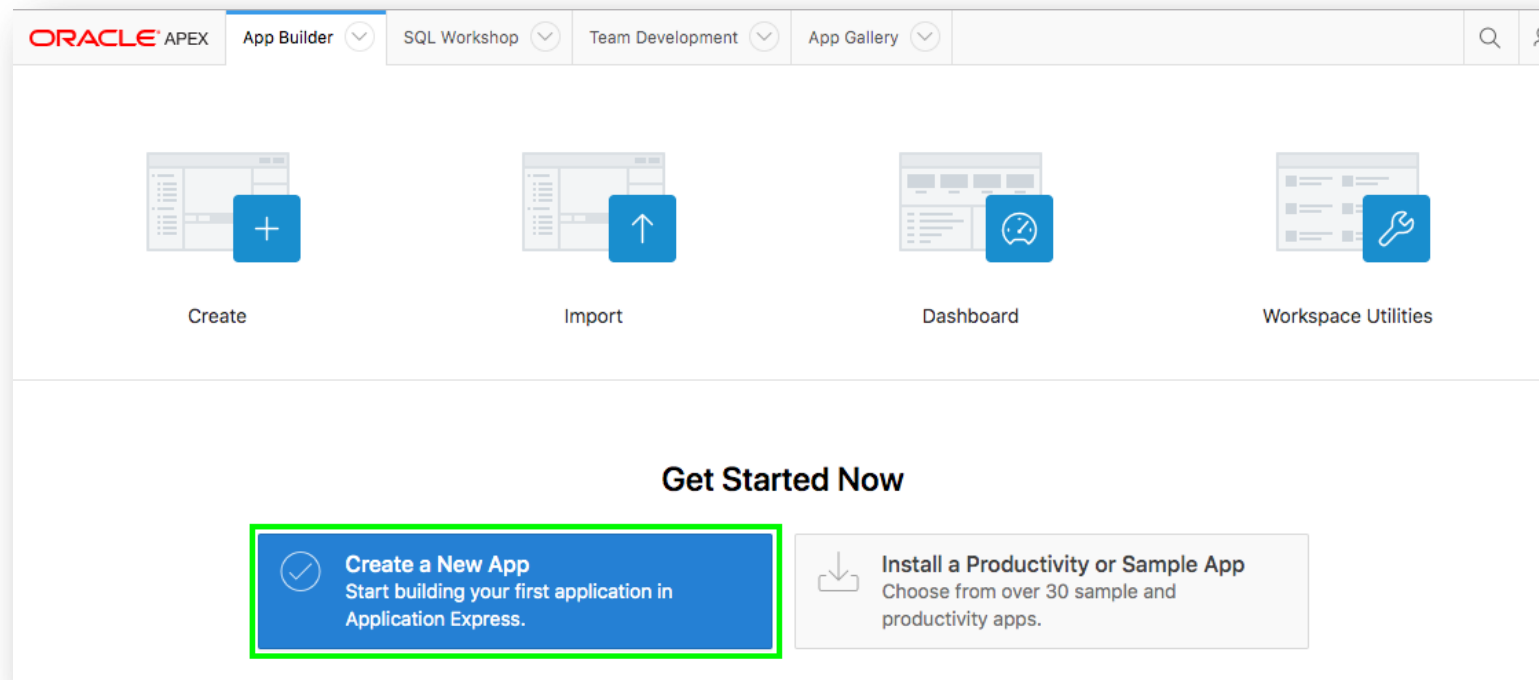


Building your first app

Creating an App from a Spreadsheet

Step 2.1 – Logging In


- Log into your workspace on <https://apex.oracle.com>
- Click **App Builder**
- Click **Create a New App**




Step 2.2 – Selecting App Type

- Click From a File


Create an Application



New Application
Add pages on existing data, select application features, set your theme, and configure other options.



From a File
Upload a CSV, XLSX, XML or JSON file, or copy and paste data, then create your application.

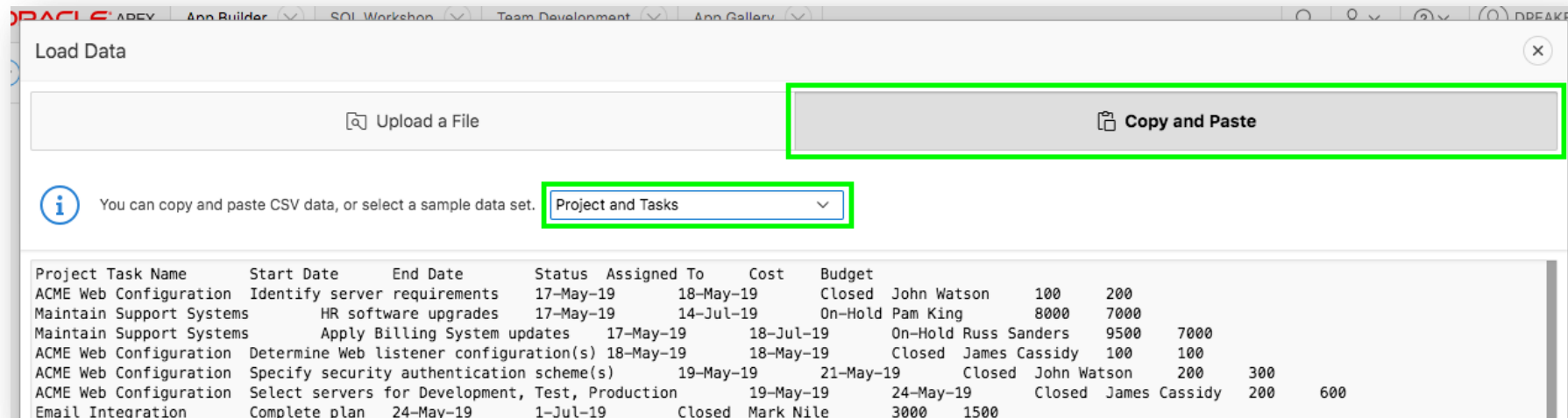


Productivity App
Install one of many included Sample and Productivity Apps from the App Gallery.

[Websheet](#) · [Quick SQL](#) · [Copy Application](#) · [Help](#)

Step 2.3 – Loading Sample Data

- Click **Copy and Paste**
- For Sample Data Set select **Project and Tasks**



Load Data

Upload a File

Copy and Paste

i You can copy and paste CSV data, or select a sample data set. Project and Tasks

Project Task Name	Start Date	End Date	Status	Assigned To	Cost	Budget
ACME Web Configuration	Identify server requirements	17-May-19	18-May-19	Closed	John Watson	100 200
Maintain Support Systems	HR software upgrades	17-May-19	14-Jul-19	On-Hold	Pam King	8000 7000
Maintain Support Systems	Apply Billing System updates	17-May-19	18-Jul-19	On-Hold	Russ Sanders	9500 7000
ACME Web Configuration	Determine Web listener configuration(s)	18-May-19	18-May-19	Closed	James Cassidy	100 100
ACME Web Configuration	Specify security authentication scheme(s)	19-May-19	21-May-19	Closed	John Watson	200 300
ACME Web Configuration	Select servers for Development, Test, Production	19-May-19	24-May-19	Closed	James Cassidy	200 600
Email Integration	Complete plan	24-May-19	1-Jul-19	Closed	Mark Nile	3000 1500

- Click **Next**

Step 2.4 – Naming the Table

- Enter Table Name {SPREADSHEET}
- Click Load Data

Load Data

Pasted Data

Settings

Column Headers First line contains headers

Column Delimiter **tab**

Enclosed By None " ' ' "

File Encoding Unicode UTF-8

Preview

Info Parsed first 74 rows to sample the column types. The preview below only displays the first 8 columns and 5 rows. To view the full preview, configure data load settings, and set which columns to load, please click **Configure** button.

1	Project	Task Name	Start Date	End Date	Status	Assigned To	Cost	Budget
2	ACME Web Configuration	Identify server requirements	17-May-19	18-May-19	Closed	John Watson	100	200
3	Maintain Support Systems	HR software upgrades	17-May-19	14-Jul-19	On-Hold	Pam King	8000	7000
4	Maintain Support Systems	Apply Billing System updates	17-May-19	18-Jul-19	On-Hold	Russ Sanders	9500	7000
5	ACME Web Configuration	Determine Web listener configuration(s)	18-May-19	18-May-19	Closed	James Cassidy	100	100

Load to Table

* Table Owner LOW_CODE

* Table Name **SPREADSHEET**

* Error Table Name SPREADSHEET_ERR\$

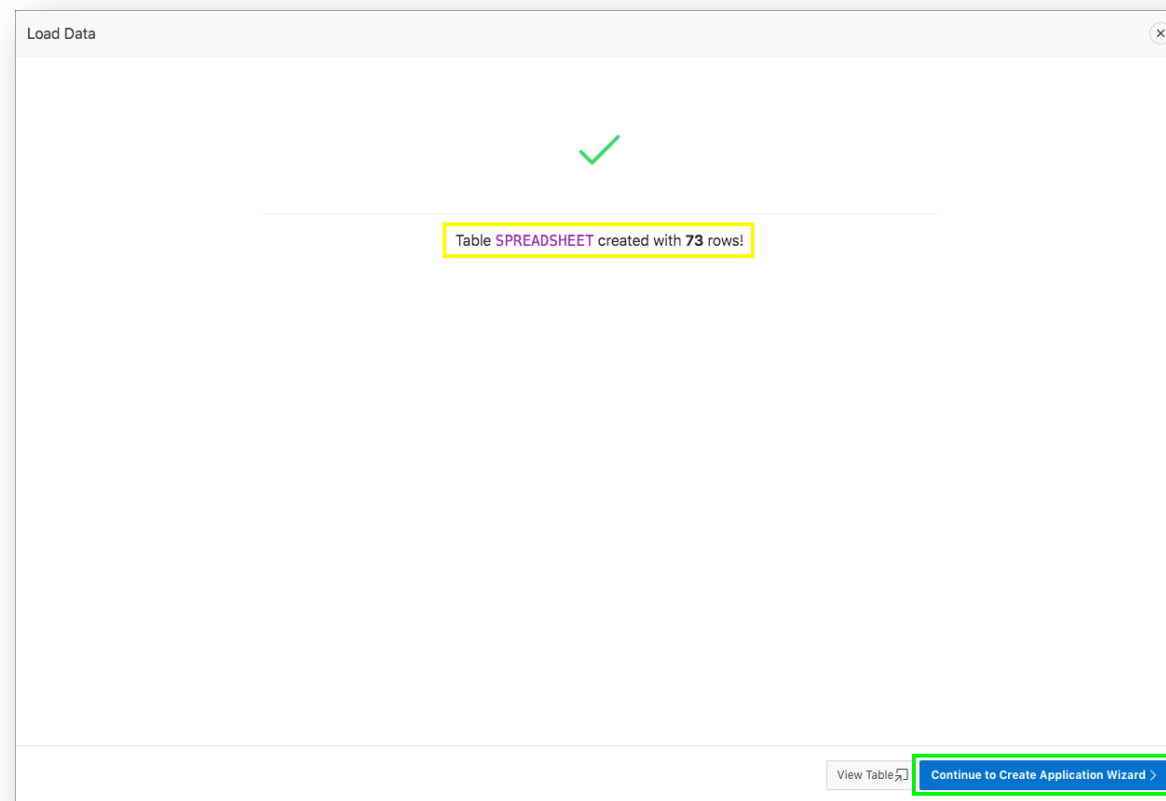
Primary Keys SYS_GUID Identity Column

Use Column Data Types

< Cancel **Load Data**

Step 2.5 – Verifying Records Loaded

- Check that 73 rows are loaded
- Click **Continue to Create Application Wizard**



Step 2.6 – Naming the App

- Enter Name
{App from a Spreadsheet}
- Next to Features,
click **Check All**

Create an Application

Name
App from a Spreadsheet

Appearance
Vita, Side Menu

Pages ?

+ Add Page

Home Blank Edit

Spreadsheet Interactive Report with Form (spreadsheet) Edit

Dashboard Dashboard Edit

Features ? **Check All**

About Page
Add about this application page

Access Control
Enable role-based user authorization

Activity Reporting
Include user activity and error reports

Configuration Options
Enable or disable application features

Feedback
Allow users to provide feedback

Theme Style Selection
Update default application look and feel

Step 2.7 – Create Application

- Click Create Application

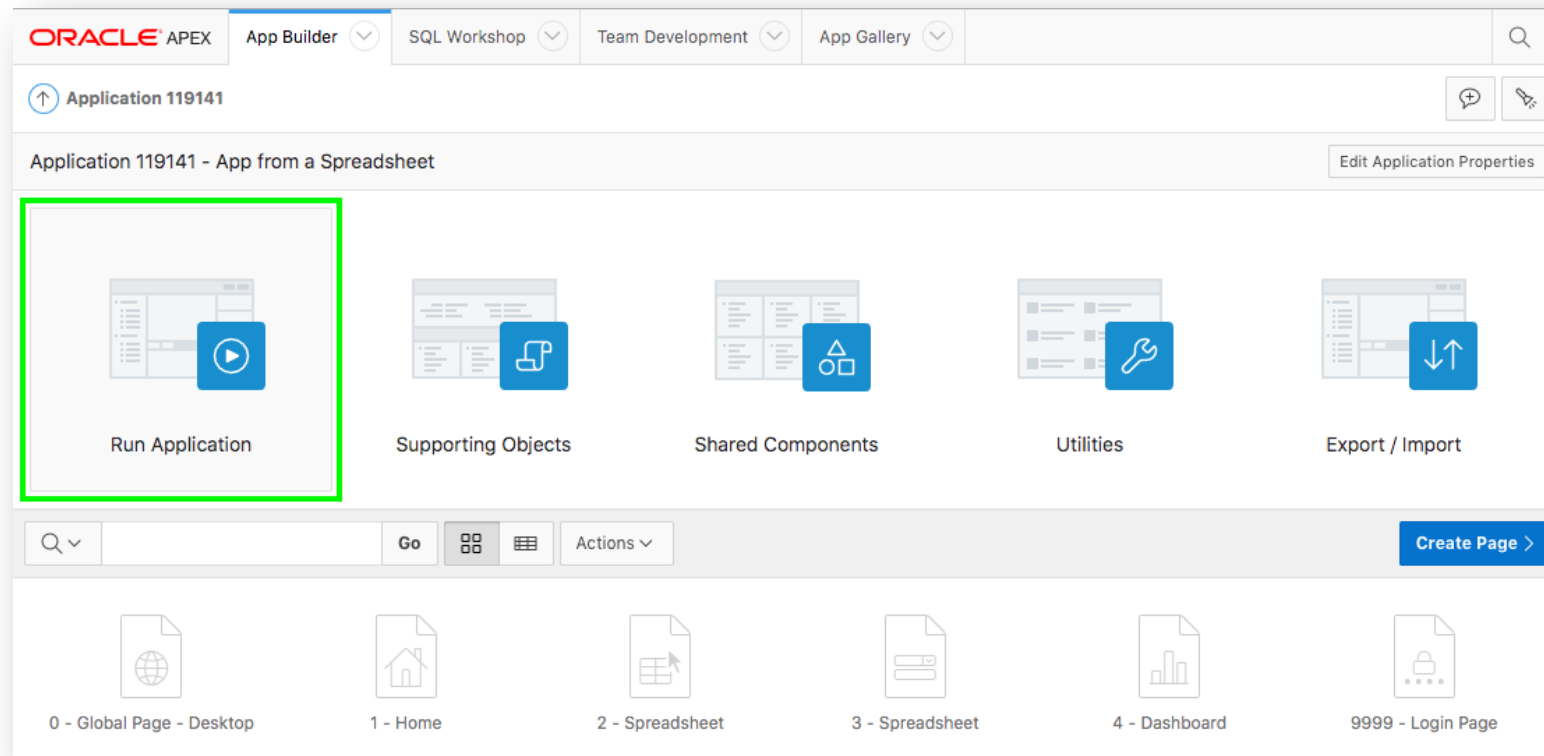
Settings ?

Application ID 62866	Schema DPEAKE	Authentication Application Express Accounts
Language English (en)	Advanced Settings	User Interface Defaults

Cancel **Create Application**

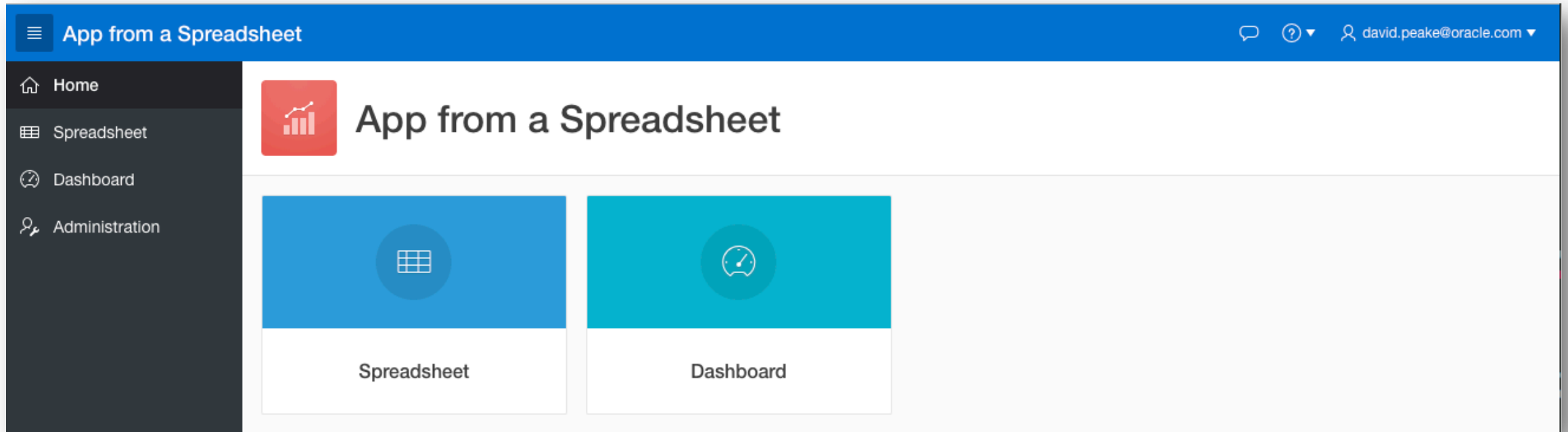
Step 2.8 – App in Page Designer

- Your new application will be displayed in Page Designer
- Click **Run Application**



Step 2.9 – Runtime App

- Enter your user credentials
- Play around with your new application



Using the Runtime Environment

Improving the Report and Form

Step 3.1 – Sort the Interactive Report

- Click **Spreadsheet**
- Click **Actions**, select **Data**, select **Sort**
- For 1, select **Start Date**; For 2, select **End Date**; click **Apply**

App from a Spreadsheet

Home

Spreadsheet

Dashboard

Administration

Go Actions

Project	Task Name	Start Date	End Date
ACME Web Configuration	Identify server requirements	7 weeks ago	7 weeks ago
ACME Web Configuration	Determine Web list		7 weeks ago

Columns

Filter

Data

Sort

Format

Sort

Column	Direction	Null Sorting
1 Start Date	Ascending	Default
2 End Date	Ascending	Default
3 - Select Column -	Ascending	Default
4 - Select Column -	Ascending	Default
5 - Select Column -	Ascending	Default
6 - Select Column -	Ascending	Default

Cancel Apply

Step 3.2 – Add a Computation

- Click **Actions**, select **Data**, select **Compute**
- Column Label enter **Budget V Cost**
- Format Mask select **\$5,234.10**
- Computation Expression enter **I – H**
- Click **Apply**

Compute

Computation: - New Computation -

Column Label: Budget V Cost Format Mask: FML999G999G999G999G99

Computation Expression: I - H

Columns	Keypad	Functions / Operators
C. Task Name	() '	!=
D. Start Date	7 8 9 -	<
E. End Date	4 5 6 +	<=
F. Status	1 2 3 *	=
G. Assigned To	0 . /	>
H. Cost	space ,	>=
I. Budget		ABS

Create a computation using column aliases. Examples:

- (B+C)*100
- INITCAP(B)||', '||INITCAP(C)
- CASE WHEN A = 10 THEN B + C ELSE B END
- ROUND(C / 1000000)

Cancel Apply

Step 3.3 – Add a Chart

- Click **Actions**, select **Chart**
- Label select **Project**
- Value select ****Budget V Cost**
- Function select **Sum**
- Sort select **Label – Ascending**
- Orientation select **Horizontal**
- Click **Apply**

Chart

Chart Type

Label: Project

Value: **Budget V Cost

Function: Sum

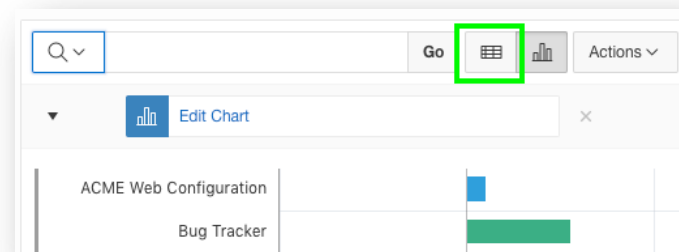
Sort: Label - Ascending

Axis Title for Label

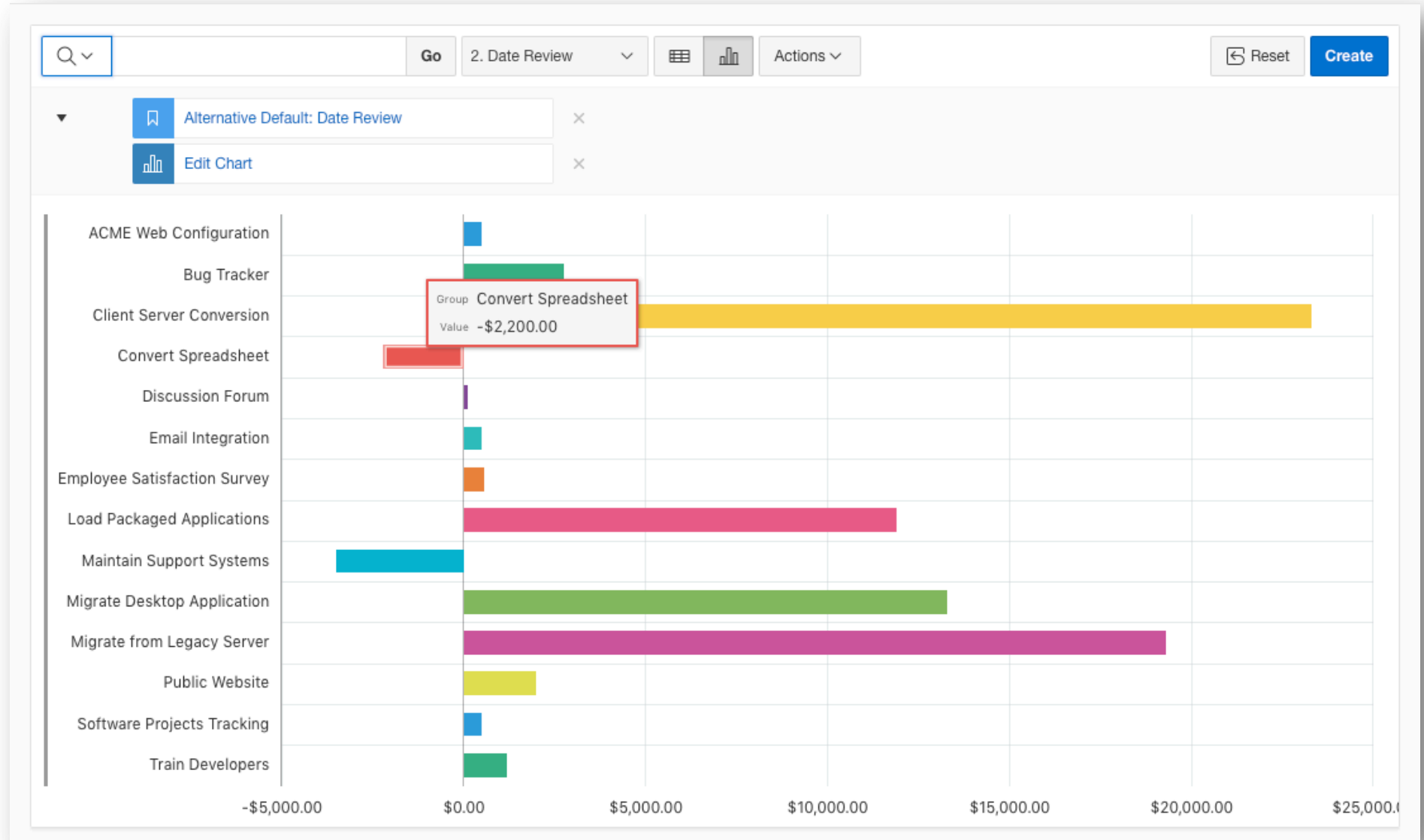
Axis Title for Value

Orientation: Horizontal

Cancel Apply

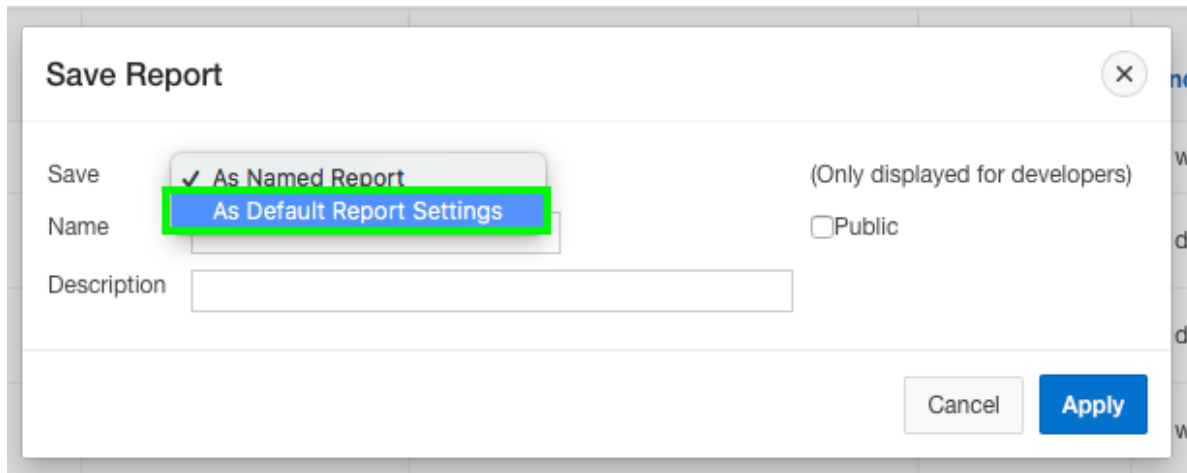


Step 3.3b – Add a Chart



Step 3.4 – Save Report

- Click **Actions**, select **Report**, select **Save Report**
- For Save, select **As Default Report Settings**
- Default Report Type, select **Alternative**
- Name, enter **Date Review**
- Click **Apply**



Save Report [Close]

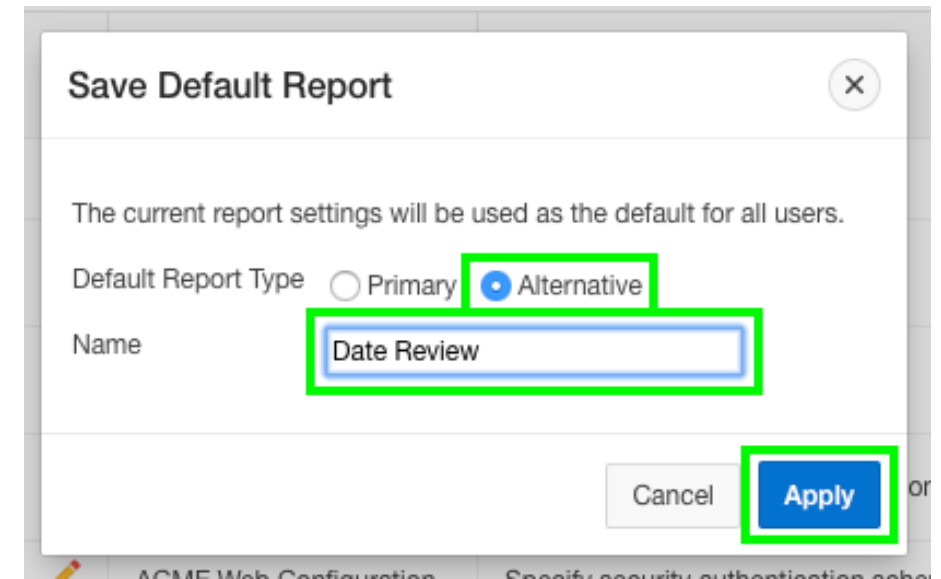
Save As Named Report (Only displayed for developers)
 As Default Report Settings

Name

Description

Public

Cancel Apply



Save Default Report [Close]

The current report settings will be used as the default for all users.

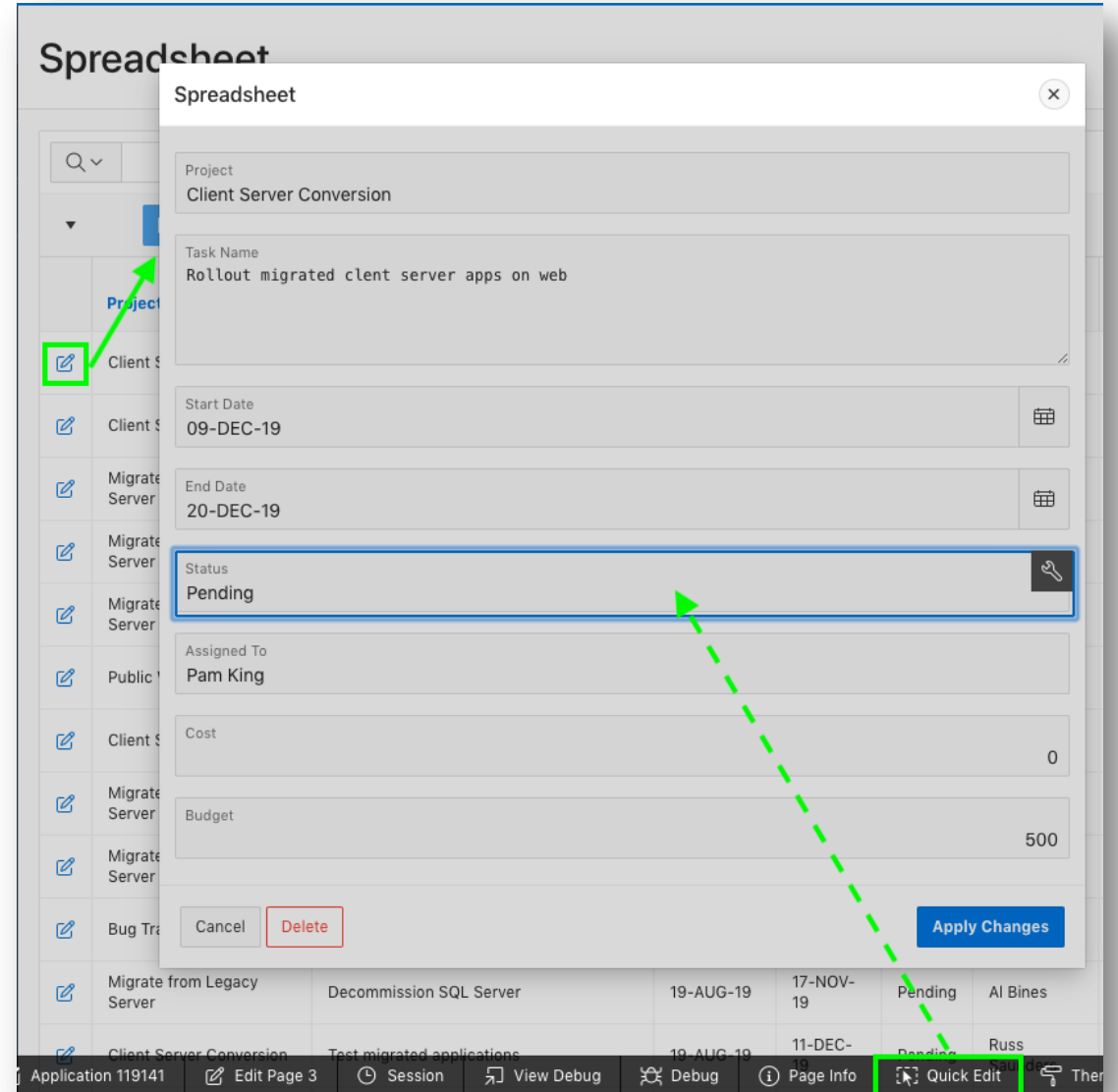
Default Report Type Primary **Alternative**

Name

Cancel **Apply**

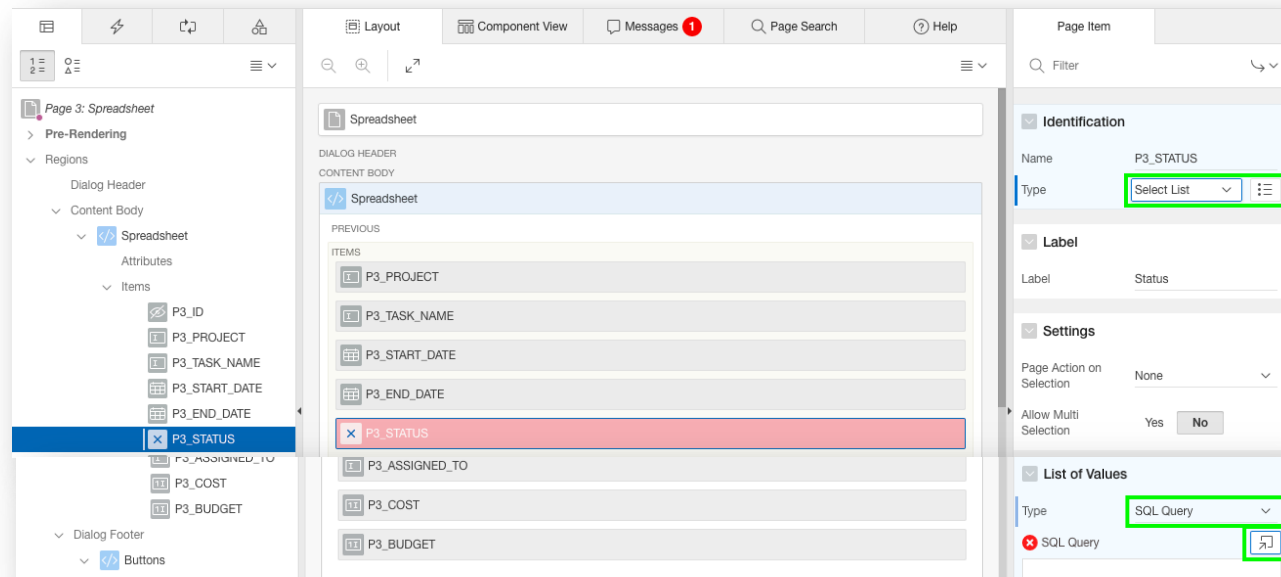
Step 3.5 – Restrict the Status

- In the runtime environment, click the edit icon on a record
- A modal page will be displayed
- In the Developer Toolbar, click **Quick Edit**
- Hover over the **Status** item (until a blue outline appears) and click the mouse
- Page Designer displays with focus on the Status item



Step 3.5b – Restrict the Status

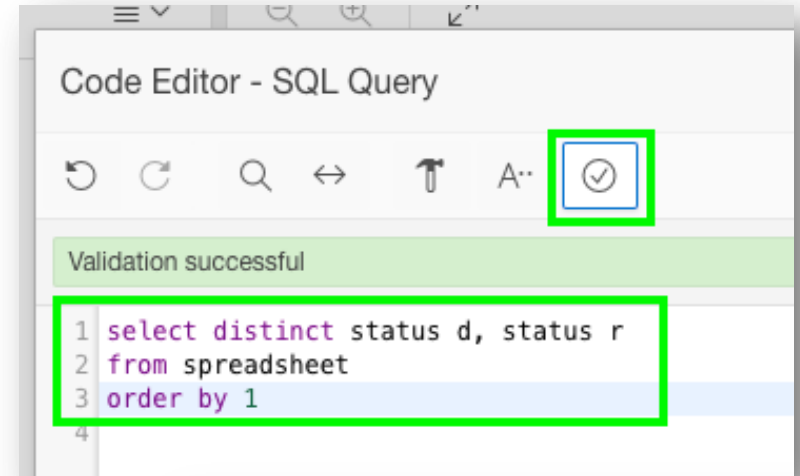
- In Page Designer, within the Property Editor (right pane), for Type select **Select List**
- Under List of Values, for Type select **SQL Query**
- Next to SQL Query, click **Code Editor**



Step 3.5c – Restrict the Status

- Within the Code Editor, enter the following:
select distinct status d, status r
from spreadsheet
order by 1
- Click **Validate**
- Click **OK**

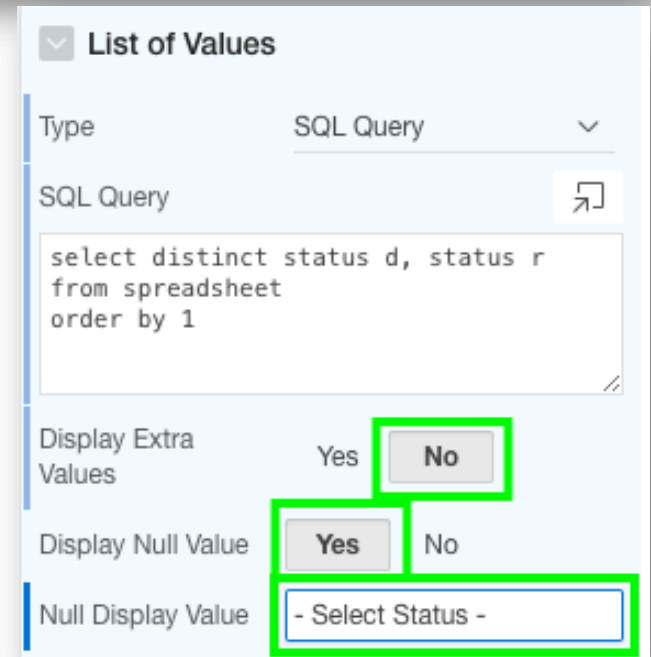
- Display Extra Values, select **No**
- Null Value Display, enter - **Select Status** -
- Click **Save** (In the toolbar - top right)



Code Editor - SQL Query

Validation successful

```
1 select distinct status d, status r
2 from spreadsheet
3 order by 1
4
```



▼ List of Values

Type SQL Query ▼

SQL Query

```
select distinct status d, status r
from spreadsheet
order by 1
```

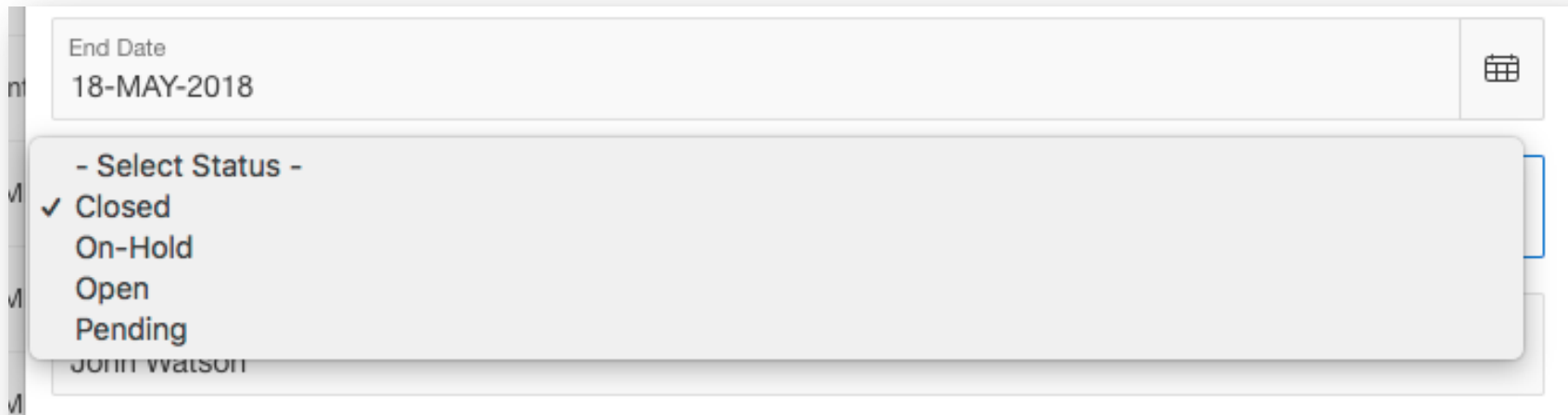
Display Extra Values Yes **No**

Display Null Value **Yes** No

Null Display Value **- Select Status -**

Step 3.6 – Run the App

- Navigate back to the runtime environment
- Refresh the browser
- Edit a record
- Click **Status**

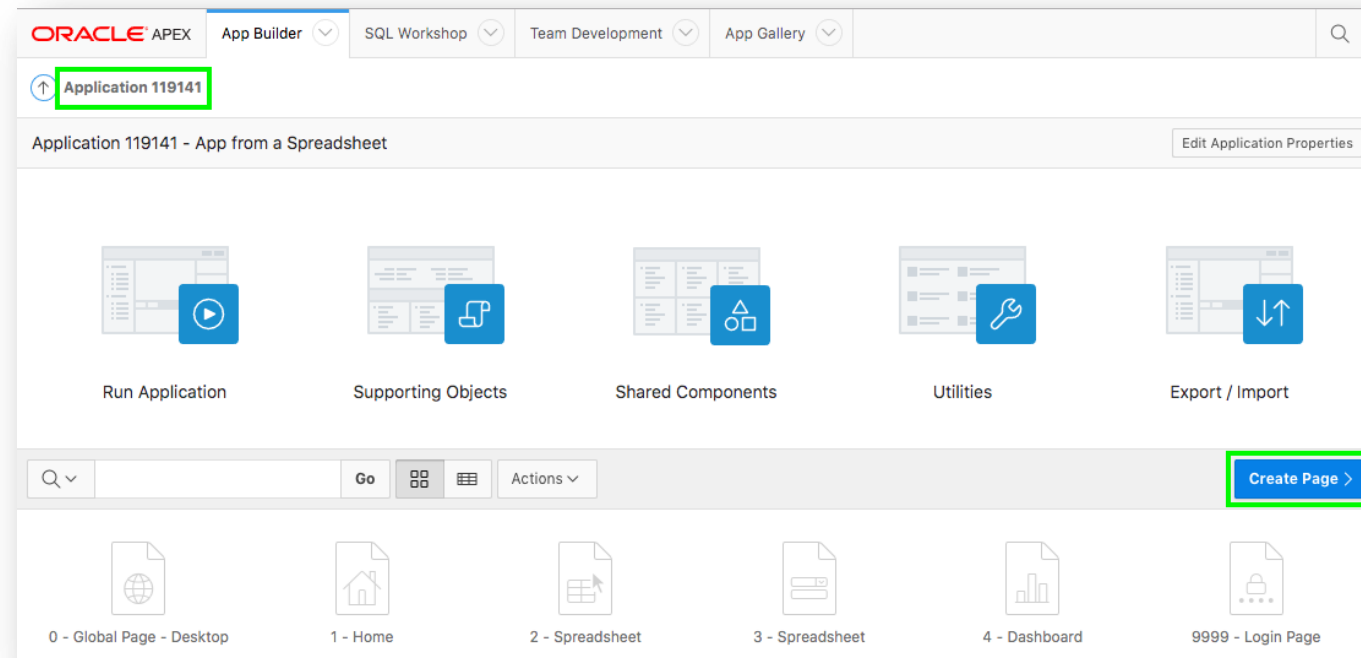


Using the Runtime Environment

Adding a Calendar

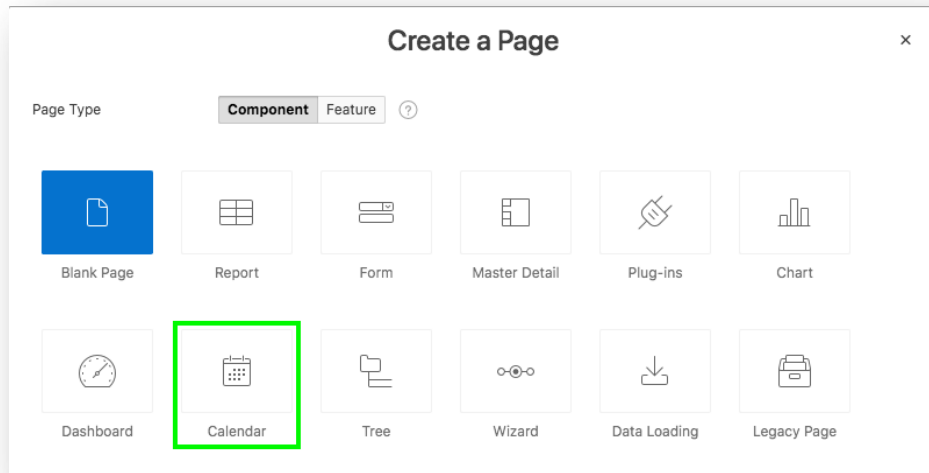
Step 4.1 – Add a Calendar

- Navigate back to the development environment
- In App Builder, navigate to the App Home Page
- Click **Create Page**

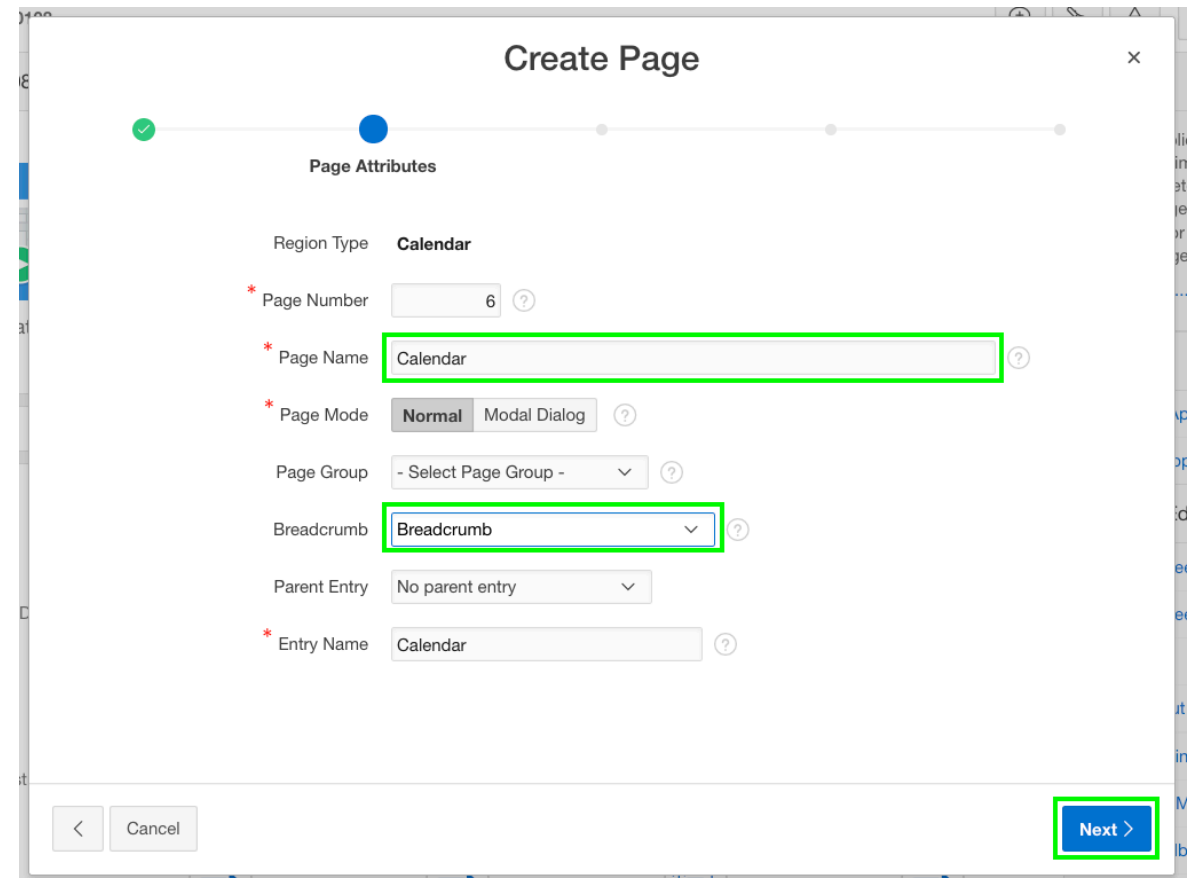


Step 4.1b – Add a Calendar

- Click **Calendar**

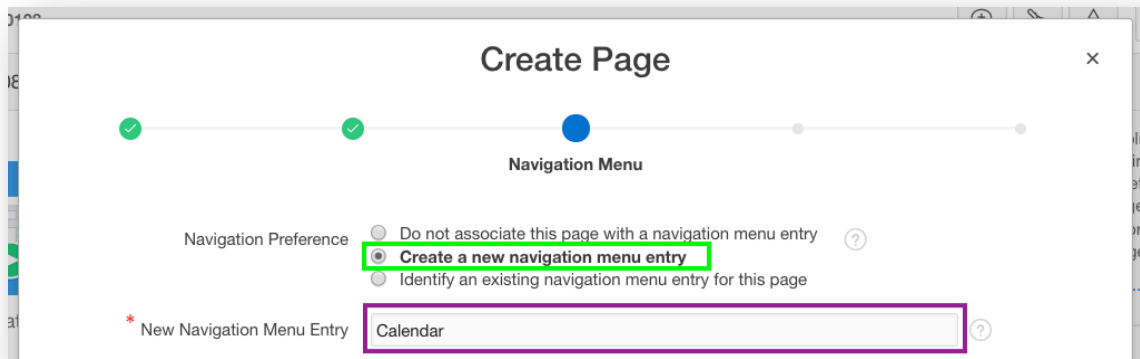


- Page Name, enter **Calendar**
- Breadcrumb, select **Breadcrumb**
- Click **Next**

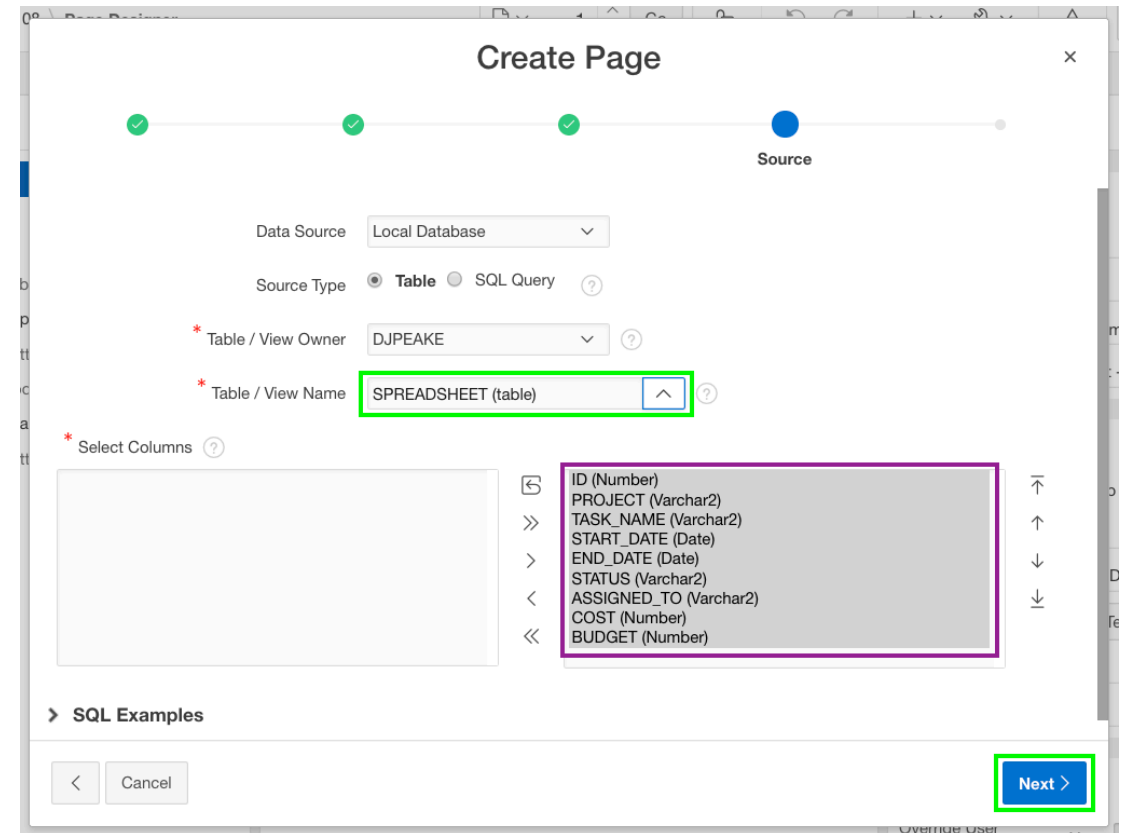


Step 4.1c – Add a Calendar

- Navigation Preference, click **Create a new navigation menu entry**
- Click **Next**



- Table / View Name, select **SPREADSHEET (table)**
- Click **Next**



Step 4.1d – Add a Calendar

- Display Column, select **TASK_NAME**
- End Date Column, select **END_DATE**
- Click **Create**

Create Page

Settings

Display Column: TASK_NAME

Start Date Column: START_DATE

End Date Column: END_DATE

Show Time: No

Cancel Create

Step 4.2 – Link the Calendar to the Update Form

- In the Rendering tab, under Calendar, click **Attributes**
- In the Property Editor (right pane), click **View / Edit Link**
- Page, select **3**
- Set Items – Name, select **P3_ID**; Value, select **ID**
- Clear Cache, enter **3**
- Click **OK**
- Click **Save and Run**

The screenshot displays the Oracle APEX Page Designer interface. On the left, the 'Page Designer' pane shows the 'Calendar' region selected, with the 'Attributes' tab active. The main workspace shows the 'Link Builder - View / Edit Link' dialog. The 'Target' section is set to 'Page in this application' with 'Page' set to '3'. The 'Set Items' section has 'Name' set to 'P3_ID' and 'Value' set to '&ID.'. The 'Clear Session State' section has 'Clear Cache' set to '3'. On the right, the 'Attributes' pane shows the 'View / Edit Link' property set to 'No Link Defined'. A green arrow points from the 'View / Edit Link' property in the Attributes pane to the 'View / Edit Link' property in the Link Builder dialog.

Step 4.2b – Link the Calendar to the Update Form

The screenshot shows the Oracle App from a Spreadsheet interface. On the left, a calendar view displays a task entry for 'Customize solutions' on Sunday, June 1st, 2018. A green box highlights this entry, and a green arrow points from it to the 'Task Name' field in the 'Spreadsheet' update form on the right. The form contains the following fields:

- Project: Load Packaged Applications
- Task Name: Customize solutions
- Start Date: 23-JUN-2018
- End Date: 18-SEP-2018
- Status: Open
- Assigned To: John Watson
- Cost: 1500
- Budget: 4000

At the bottom of the form are buttons for 'Cancel', 'Delete', and 'Apply Changes'.

*Note:
You may need to
navigate to the
month of May
to see calendar
entries.*

Learn More

Useful Links

Useful Links

- APEX Collateral

<http://apex.oracle.com>

- Tutorials

<https://apex.oracle.com/en/learn/tutorials>

- Community

<http://apex.oracle.com/community>

- External Site + Slack

<http://apex.world>

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