Practice 1: Getting Started with the Order Management App

Practices Overview

In these practices, you will create a version of the Redwood Reference Application, available on redwood.oracle.com.

Your version will use the latest Redwood Page Templates and Components to achieve its functionality.

Your app uses specially modified data sources from Oracle Fusion Applications that are smaller, lighter, and easier to work with in hands-on practices like these. These are stored in CSV files and are loaded into Business Objects.

You will create the following pages:

- Welcome Page: Orders Needing Attention
- Manage Orders
- View Order
- View Customer
- Create Order and Items
- Edit Pending Orders
- Manage Inventory
- View Product Details
- Dashboard: KPI and Charts

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Practice 1

Important Notes

- You will be working on a shared Oracle Cloud domain. The Visual Builder Studio instance is also shared among the participants.
- Therefore, it is extremely important to **add a unique identifier** to the artifacts that you create – specifically the project name that you will create in the next practice.
  - Use **`<your-initials>`** as a suffix to identify your artifact.
  - Example: OrderMgt_**JDG** for the project name
- This will help you to spot your project easily, troubleshoot easily, and not disturb others' work.
- You must use Google Chrome for performing the practices. Some features will not function as expected in other browsers.
- Due to UI-related updates, you might notice variations in the screenshots and the actual UI. However, this will not be a hindrance to your learning experience.
- These practices assume you have taken one of the Oracle University Visual Builder Studio developer courses and/or have equivalent development experience with Visual Builder Studio:
  - Develop Fusion Applications using Visual Builder Studio
  - Build Visual Applications using Oracle Visual Builder Studio

  You will learn and understand more in these practices if you have taken one of these courses first. These courses are part of the free Application Development Learning Paths at **mylearn.oracle.com**.

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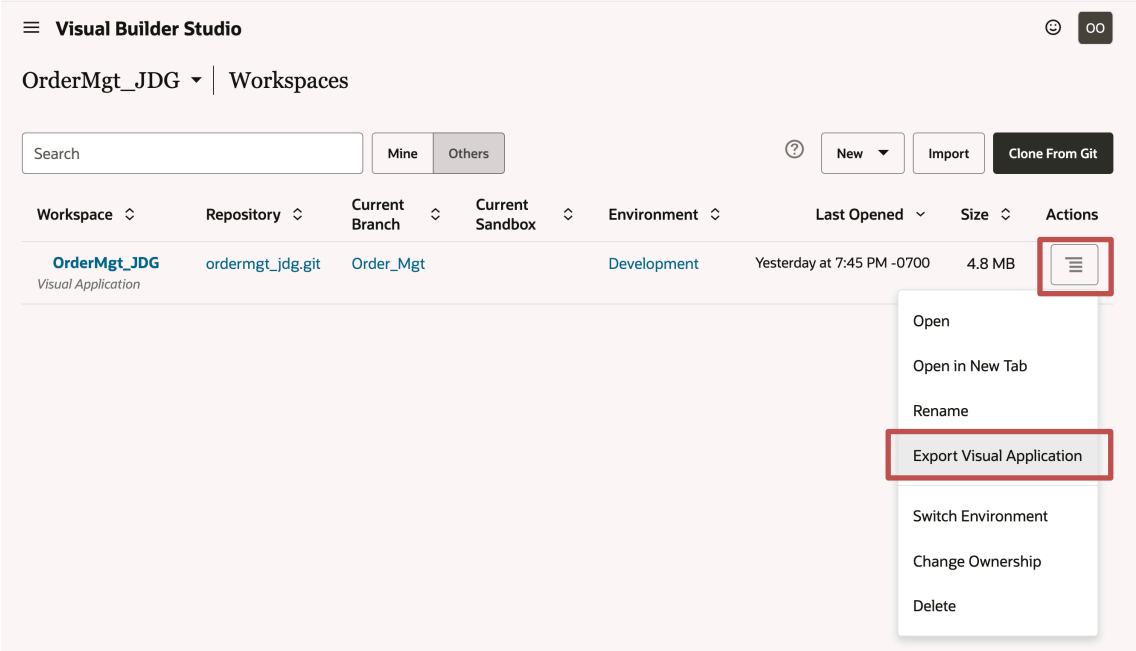
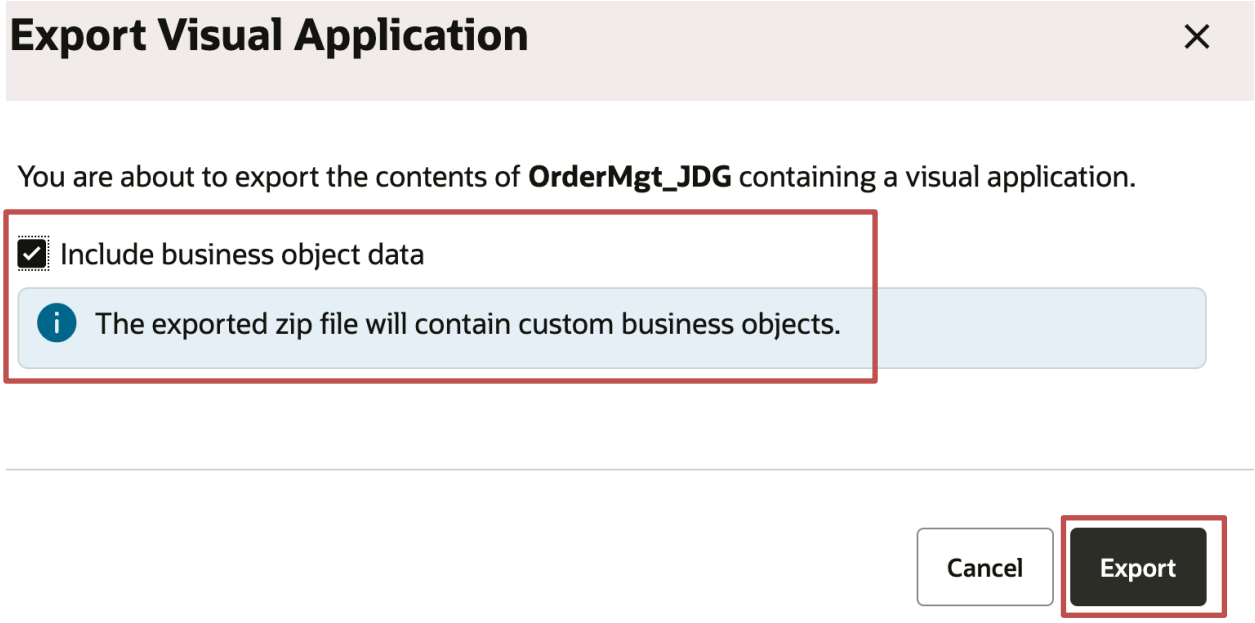
- You are welcome to export your visual application web app with business object data so you may use this at your site for reference and learning. To export the app with data export the workspace from the Workspaces page with data:





The file can be imported into any VBS environment that has a Visual Builder Runtime Instance defined through an environment.

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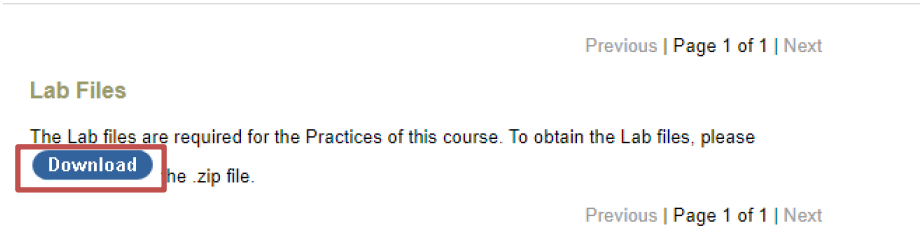
- As part of recording these practices, additional tips, tricks and explanations are recorded. Even if you can complete all these practices on your own, it may be worthwhile listening to the recorded voiceover to take advantage of the additional tips and tricks.

  The practice files required for the course are in a ZIP file as part of the eKit. You need to download and unzip the ZIP file.
  Note: You must be logged in to access the eKit and download the ZIP file.

a. To download the practice files, click the **Guides** tab. Click the link that says **(Labs)**.

b. On the **Lab Files** page, click the **Download** button.



c. The ZIP file is downloaded. Unzip its contents to a local directory. You will use those unzipped files during the practices.

Overview

In these practices, you will:

- Create a new Visual Application
- Work with a pre-created web app that uses the Redwood Starter template.

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Practice 1-1: Create the Order Management Visual Application

Overview

Visual Builder Studio (VBS) is a development platform that helps you plan and manage your extension's life cycle, from design and build through test and deploy.

The first thing you'll do is create a Visual Builder Studio project. A project is required to hold the application's code and metadata. As someone who creates a project, you'll automatically become the project's owner, responsible for project management.

Assumptions

You have received your credentials and login information from your instructor or lab details.

Tasks

1. In the web browser, log in to Visual Builder Studio. The URL and credentials will be shared by the instructor or can be fetched by clicking on the Lab icon (on the course page).

   Paste the Visual Builder Studio URL (sample given below) into your Chrome browser.

   ```
   Visual Builder Studio URL
   https://appdevcs99066335-
   ocuocictrng20.developer.ocp.oraclecloud.com
   /appdevcs99066335-ocuocictrng20/
   ```

   Use the provided User Name and Password (sample given below) to log in.

   User Name: 99066335-ora026

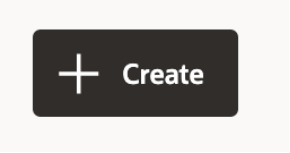
   Password: 6kS1aNKM35

   You will be prompted to change the password. Make sure to write the new password down!

2. If you're logging in for the first time, you'll see a Welcome screen and your username, along with a news feed. You can dismiss the news feed at any time by clicking the **X**, or keep it around. If you dismiss it, dismiss the News Banner message as well.

   You are on the **Organization** page, which has a list of the projects you own or are a member of. If there are no current projects, you are prompted to Create Your First Project.

3. Click **+ Create** to create a new project.

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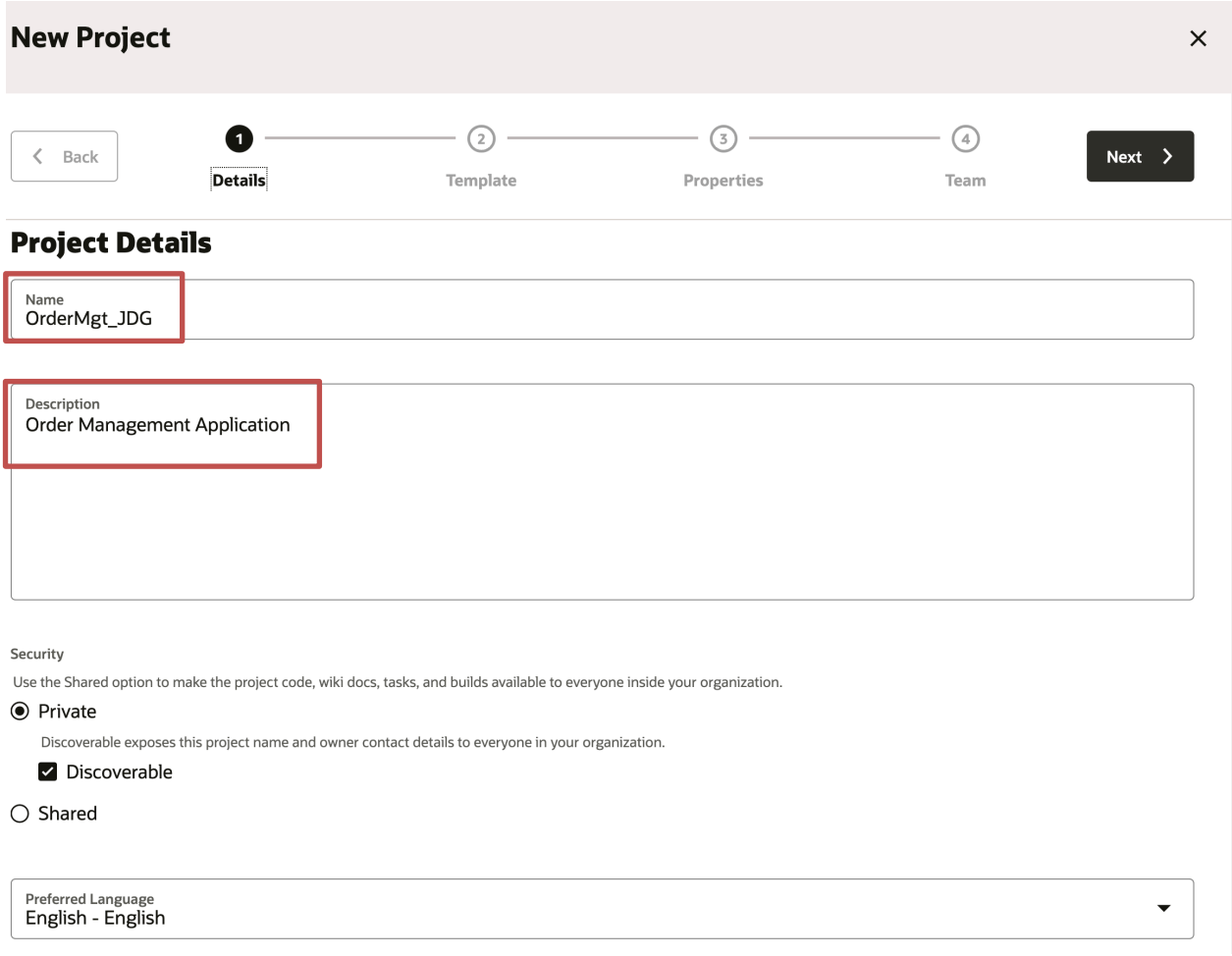
4. On the **Project Details** page of the **New Project** wizard, enter:
   - **Project Name**: `OrderMgt_<your-initials>`. Example: `OrderMgt_JDG`
   - **Description**: `Order Management Application`
   - **Security**: **Private** (default)
   - **Discoverable**: Selected (default)
   - **Preferred Language**: English

   Click **Next**.

   Note: If there is already a project with the same name and initials, add a number to the end of the initials to make it unique from the rest.



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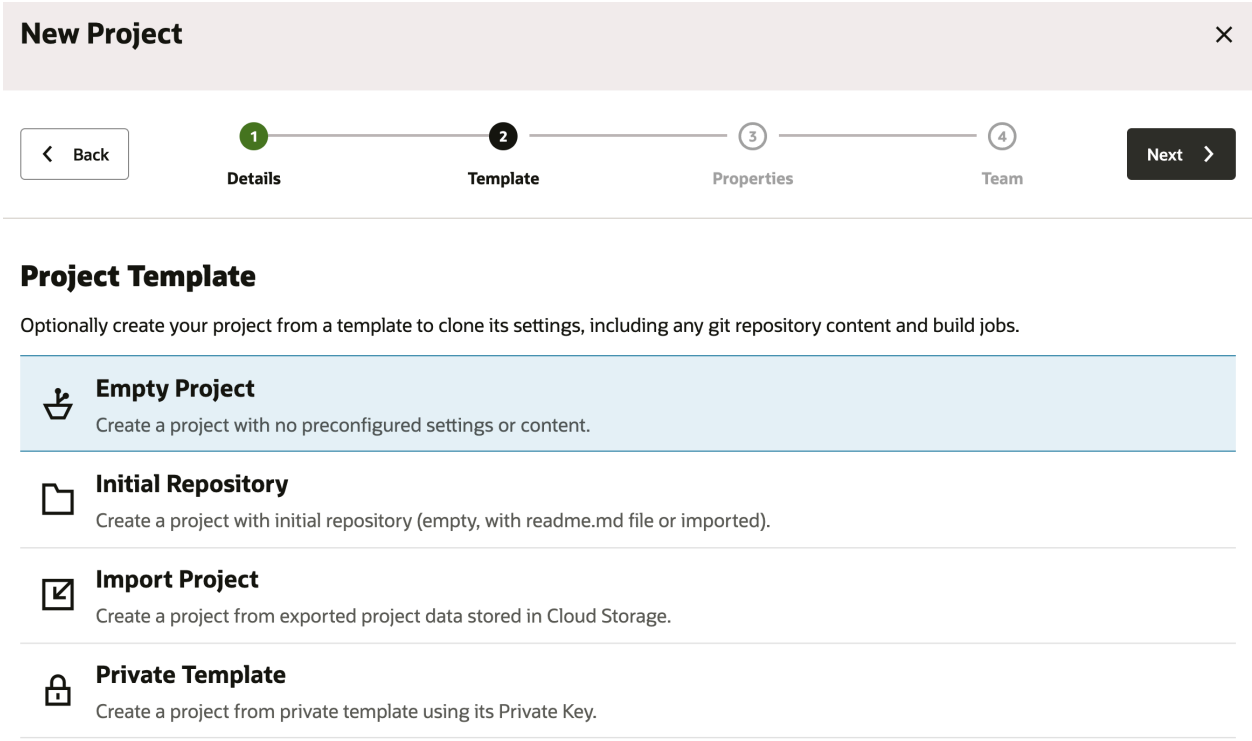
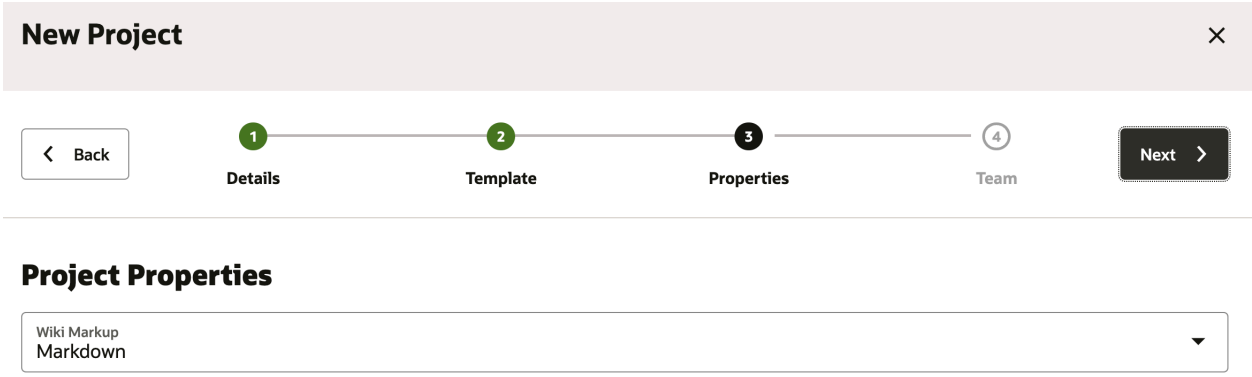
5. With Empty Project selected, click **Next**.



6. On the Project Properties page, Click **Next**.



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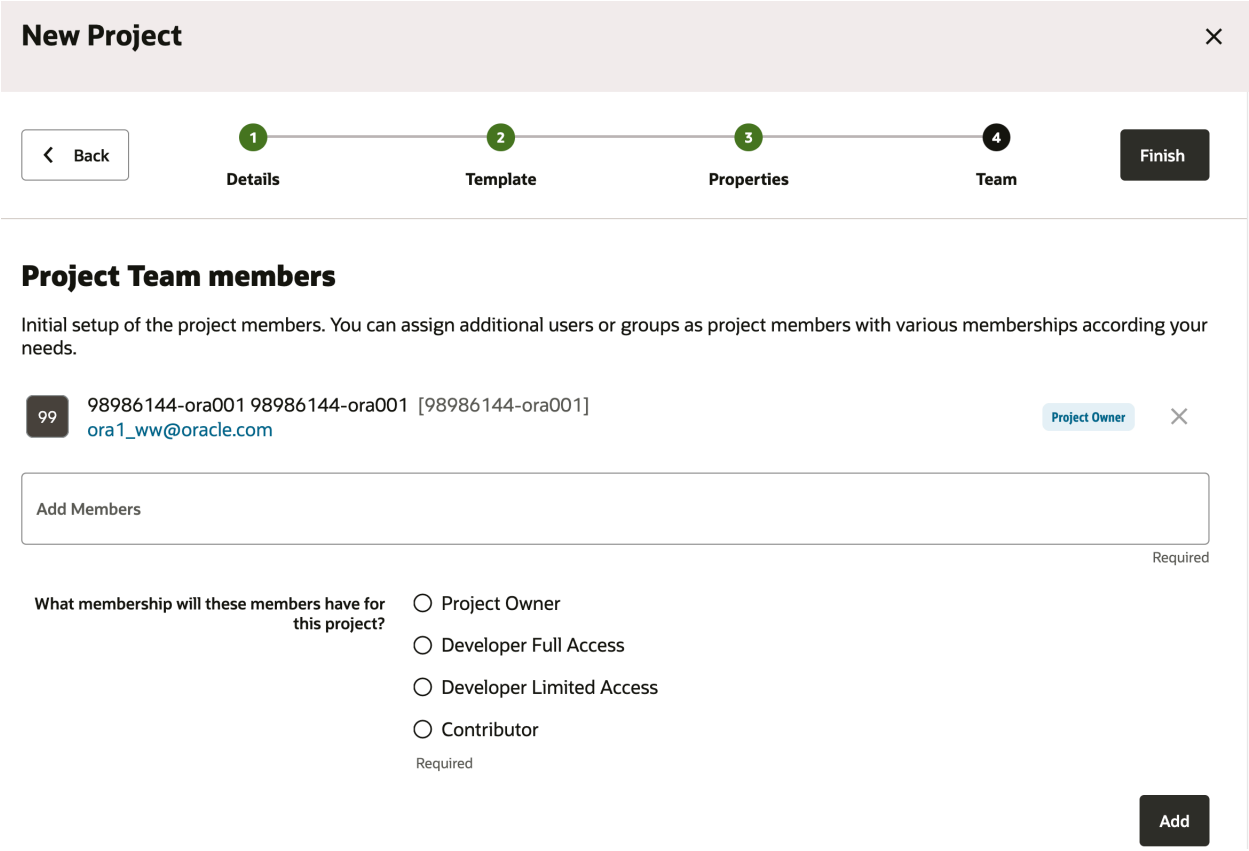
7. On the Project Team members page you could add new members and set their membership. You don't need to do that for these practices, so click **Finish** to create the project.



Wait for the project to be provisioned. This can take a few minutes.

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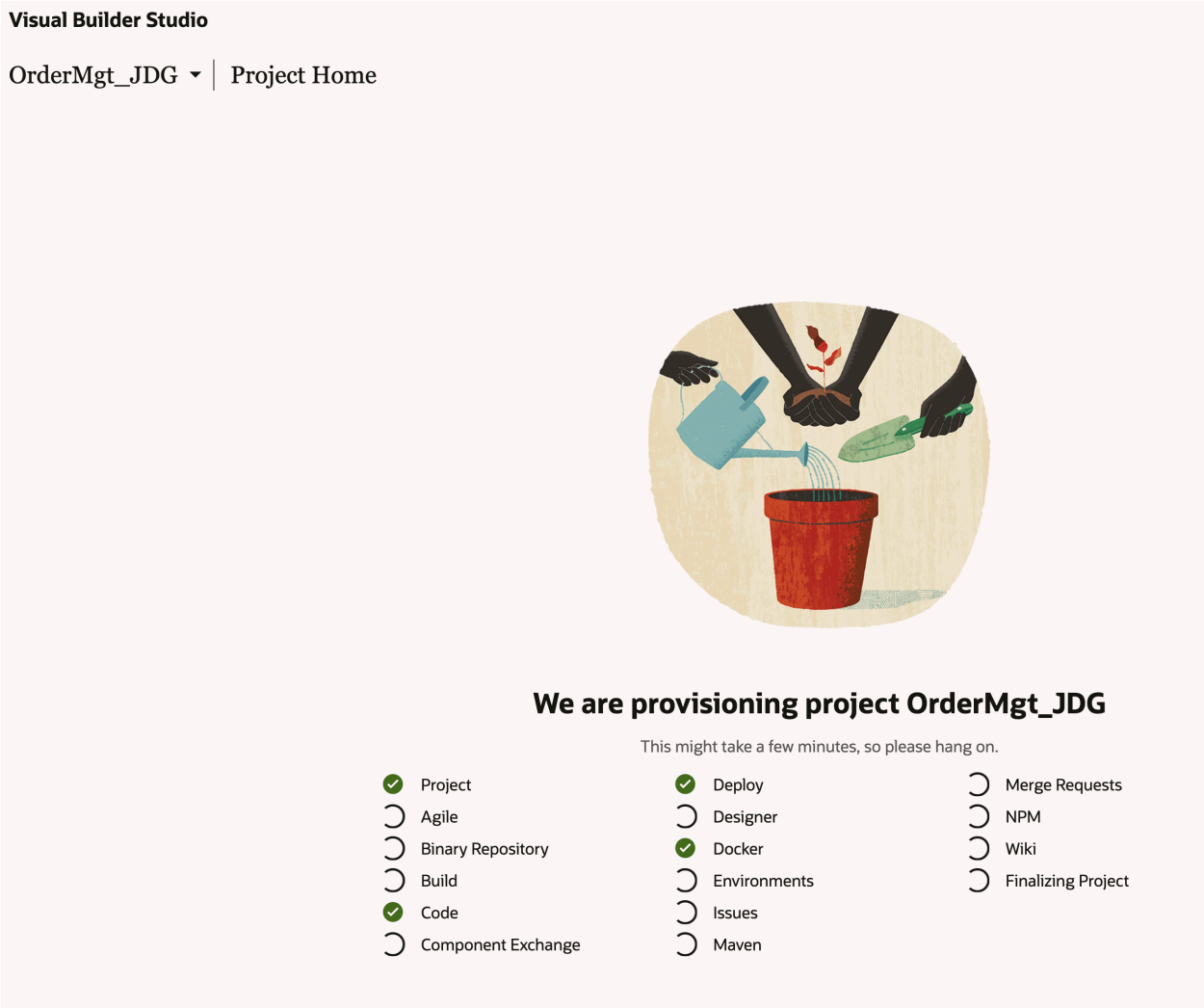

Once provisioning completes, you'll see the **Project Home** page, which serves as a window to the **Workspaces**, as well as to your **Environments**, **Git Repositories**, and **Recent Activities** feed. On the left is a series of links showing all the available project components.

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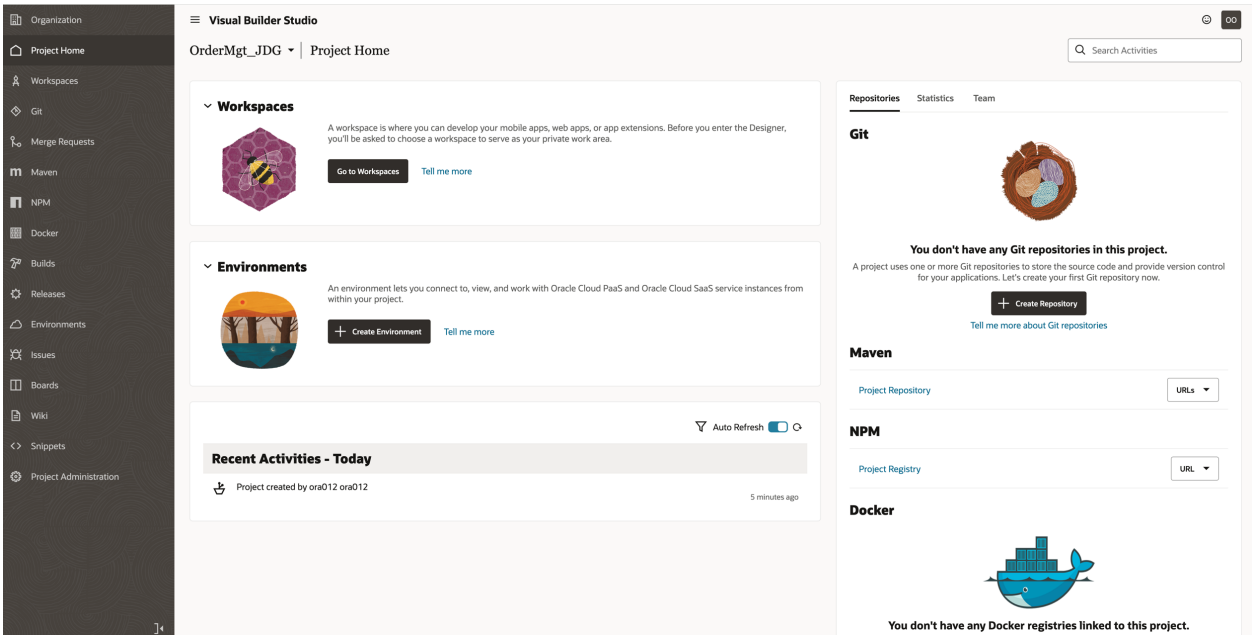
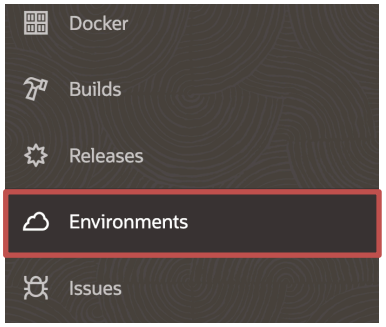


8. You need to add the Visual Builder instance that will host your visual application developed in Visual Builder Studio. Click the **Environments** tab.



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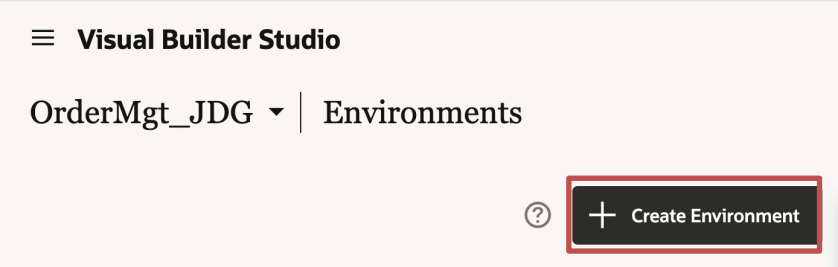
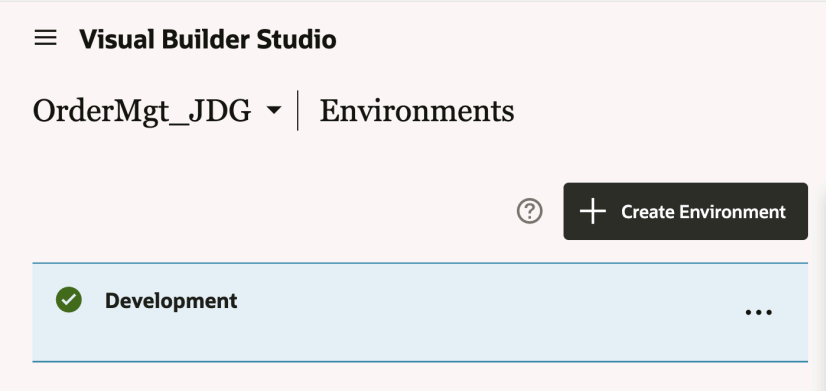
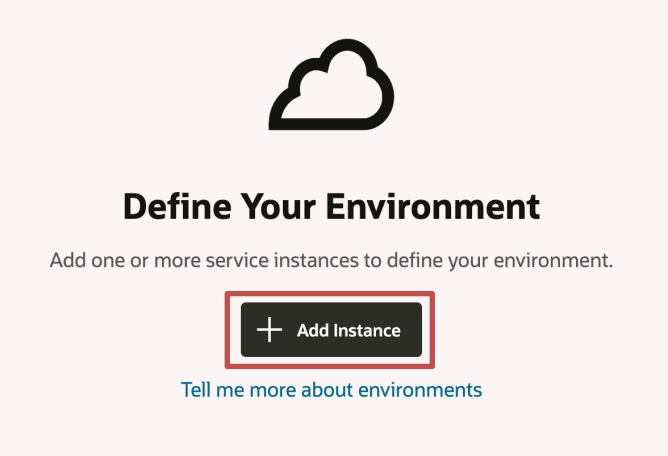
9. Click the **+ Create Environment** button to create a new environment.



10. Name it `Development` and click **Create**. The new environment is created.



11. Click the **+ Add Instance** button to add a VB Hosted Instance.



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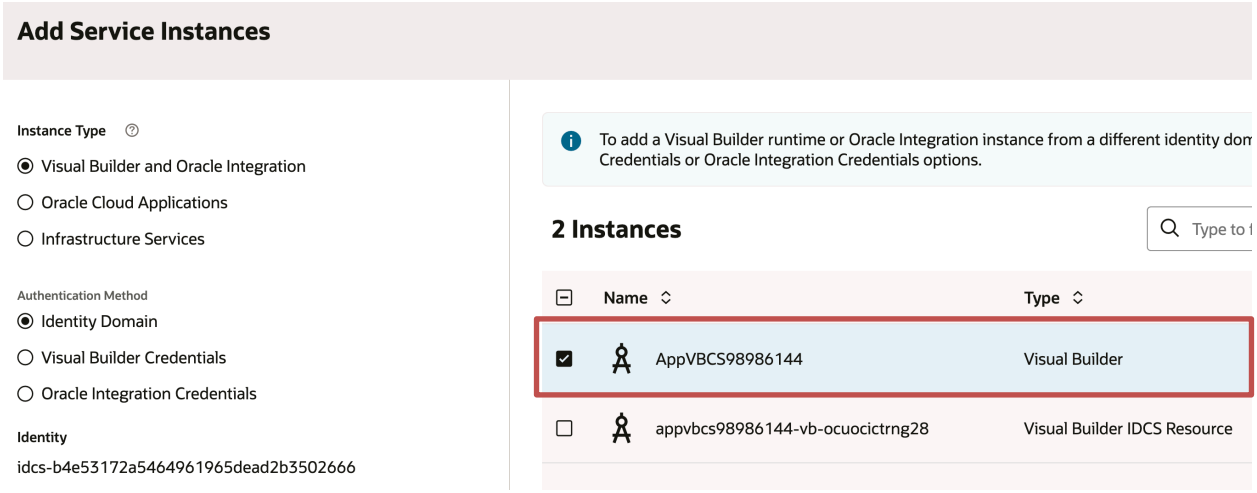
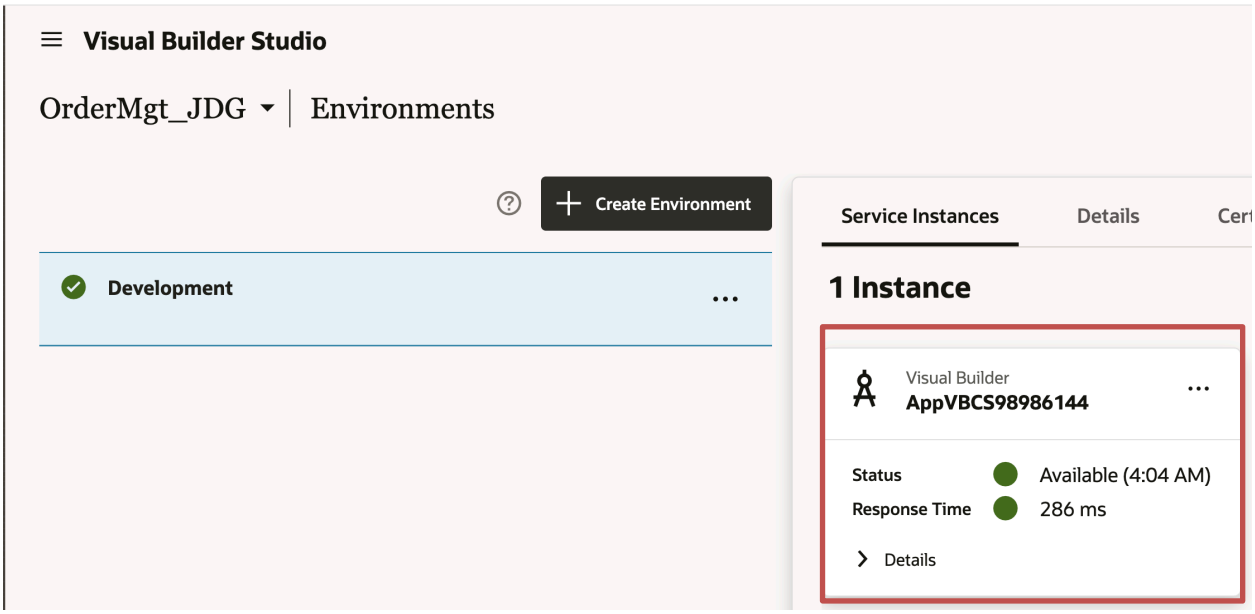
12. You are presented with a list of Visual Builder instances. Select the one that matches your Visual Builder Cloud Instance name from the credentials you received. Note that the Type is **Visual Builder**. For example: AppVBCS98986144 (**Note**: yours will be different). Click **Add**.



You should see the new instance is added and shows green status indicators for Status and, after a moment, Response Time.



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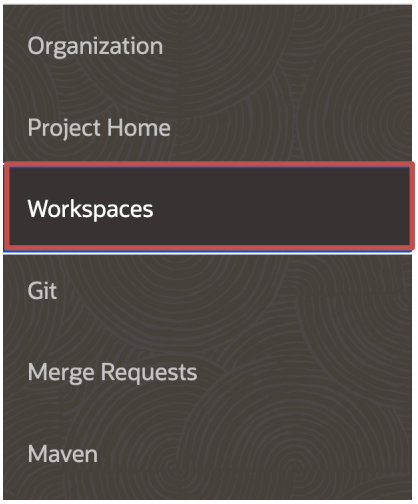
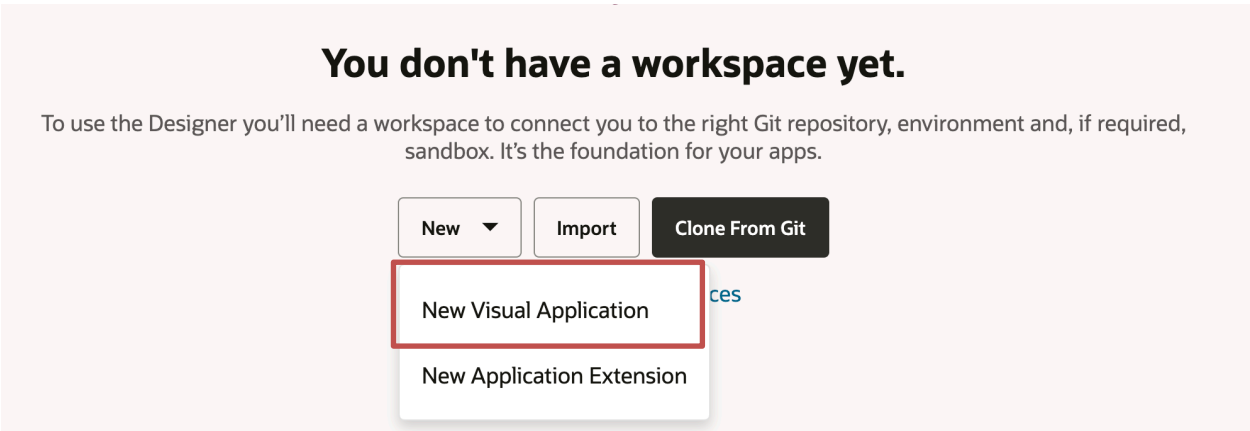
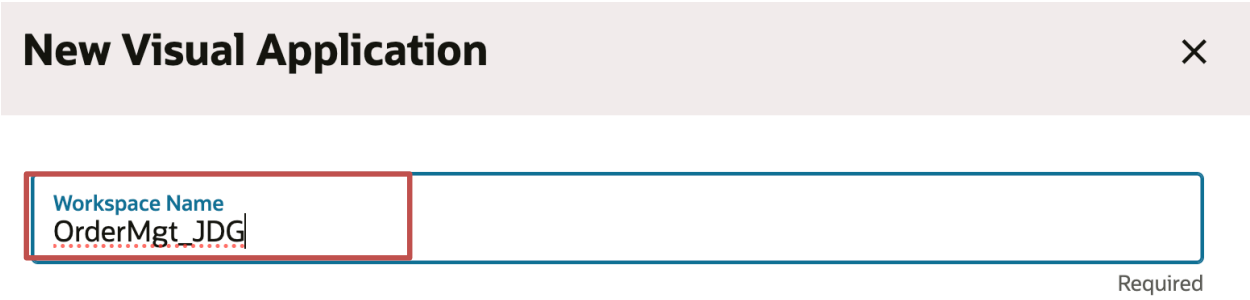
13. Click the **Workspaces** tab to create a new visual application for your Web App.



14. Click the **New** pulldown and select **New Visual Application**. **Note**: Application Extensions are only for extending Oracle Fusion Apps.



15. In the New Visual Application dialog, enter `OrderMgt_<your initials>` for the **Workspace Name**.



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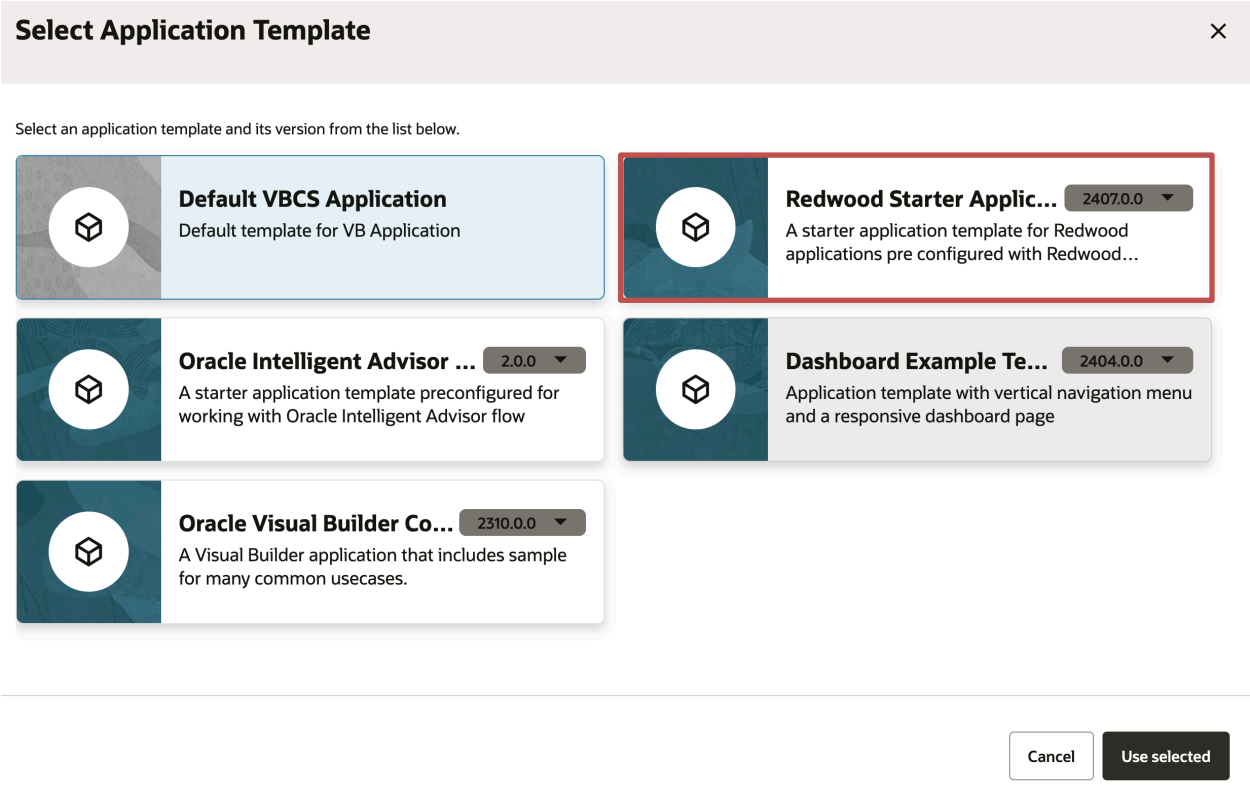
16. Click the **Change Template** link and select the **Redwood Starter Application** template and click **Use selected**.

Hint: Make sure to do this! If you forget to do this step you will have to restart this practice!



17. On return to the New Project page, select **Create new repository** for the Git Repository.

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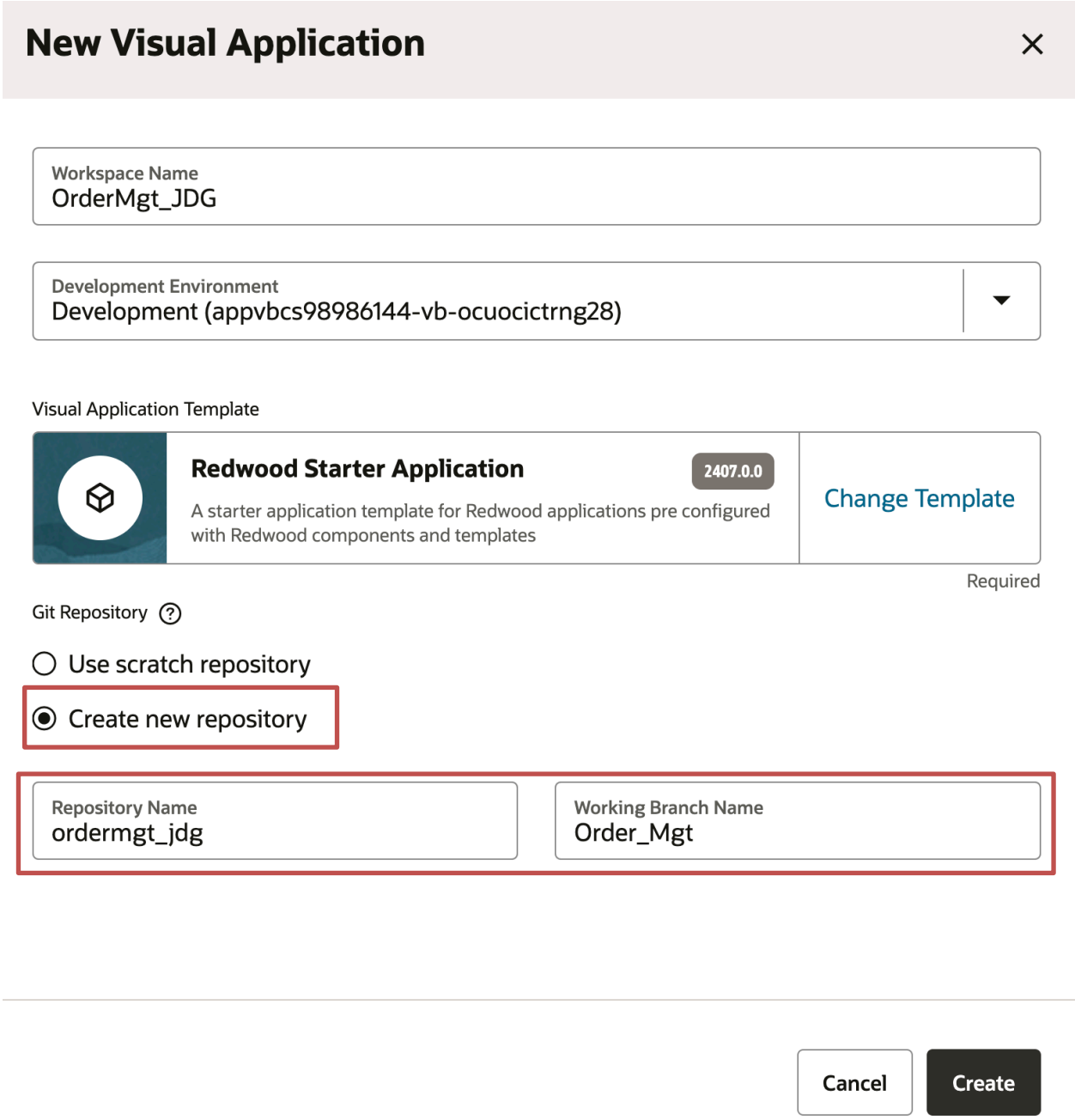
18. Enter `ordermgt_<your intials>` for the **Repository Name** and `Order_Mgt` for the **Working Branch Name** and click **Create**.



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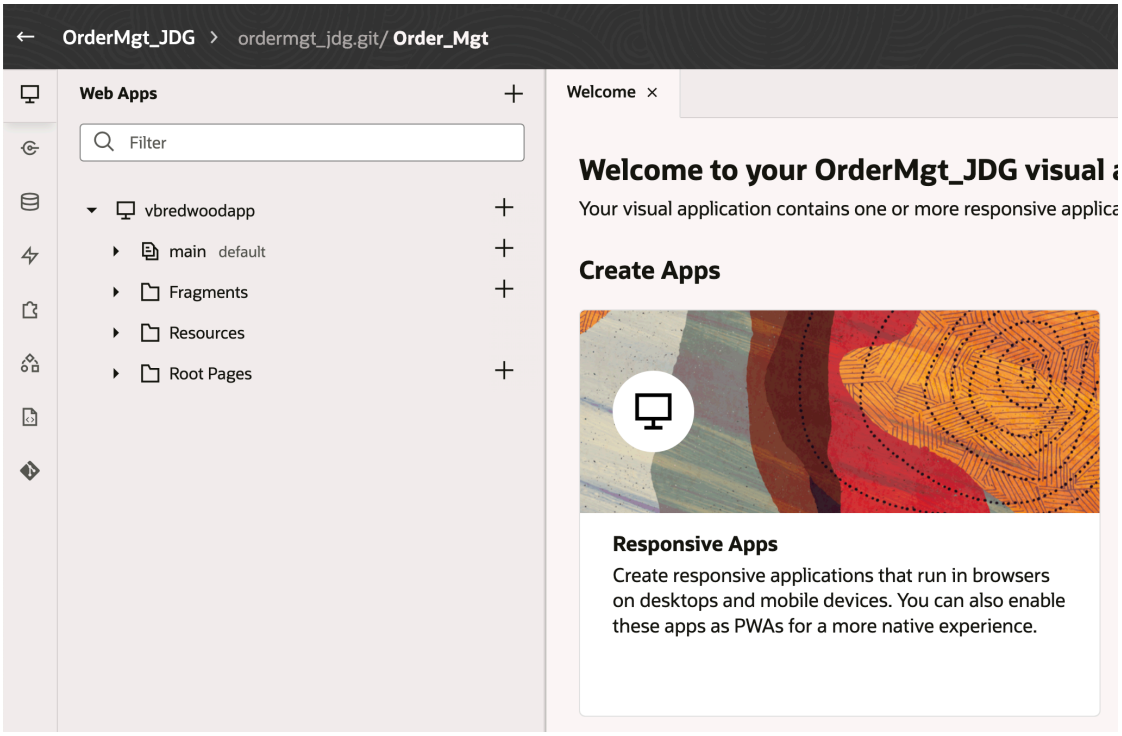
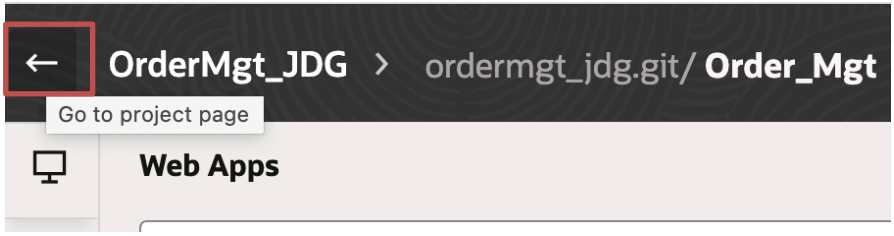
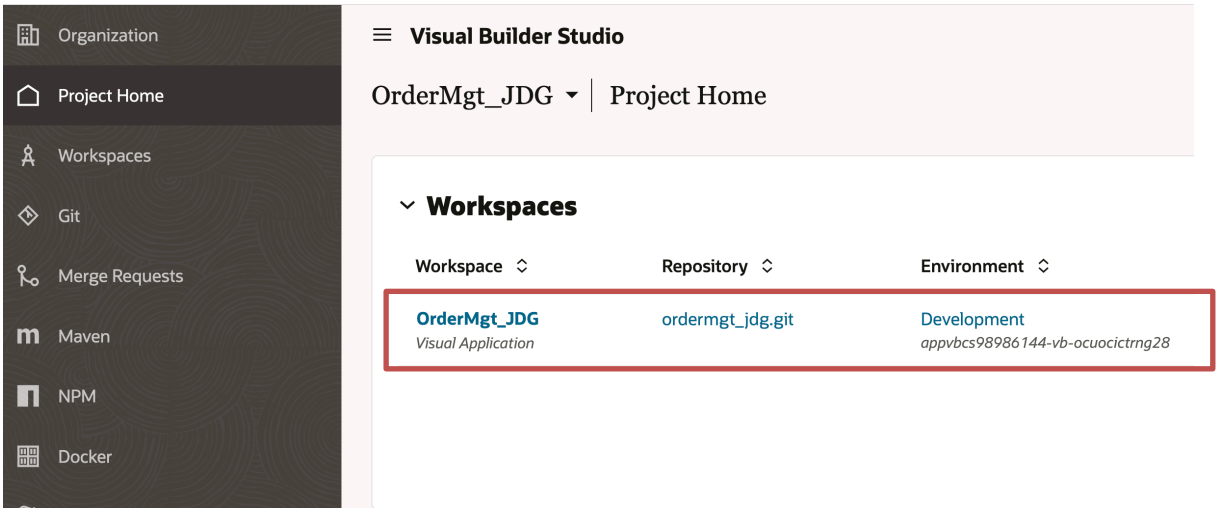
The workspace and Git Repository are created and the workspace opens in the Designer.



19. For now, return to the Project page by clicking the **Go to project page** arrow.



You are returned to the project home page and your new workspace is listed.



This completes this practice.

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Practice 1-2: Set up the Web App

Overview

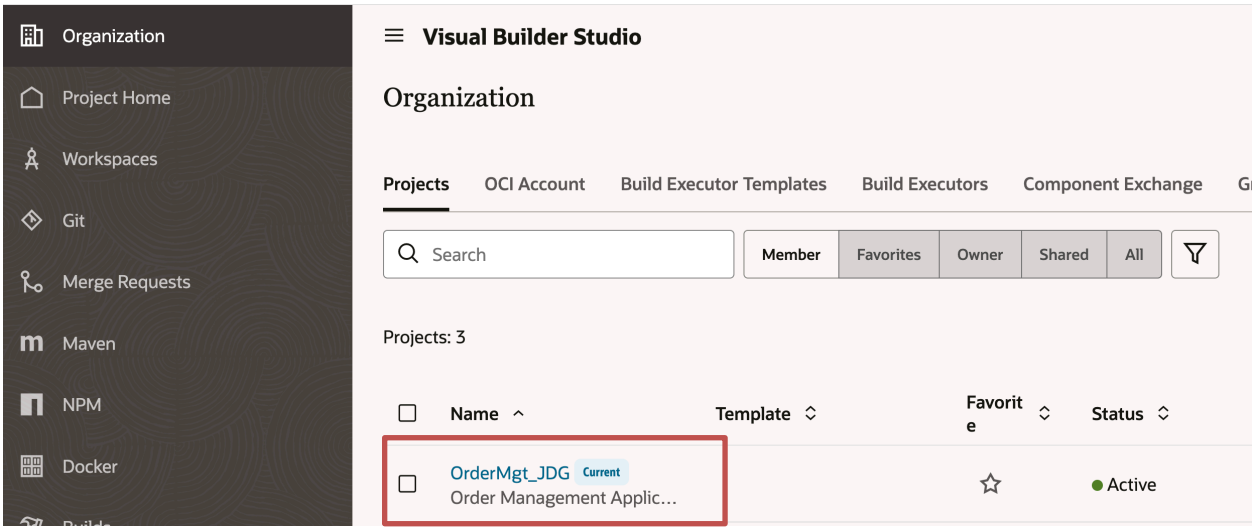
In this practice, you configure the new web app: add flow-level JavaScript functions that will be used throughout the labs and add needed pages for the app.

Assumptions

You have successfully completed Practice 1-1.

Tasks

1. Log in to **Visual Builder Studio** and select your project name on the **Projects** tab. Your project name will be **OrderMgt_<your initials>**, where **<your initials>** corresponds to your initials.



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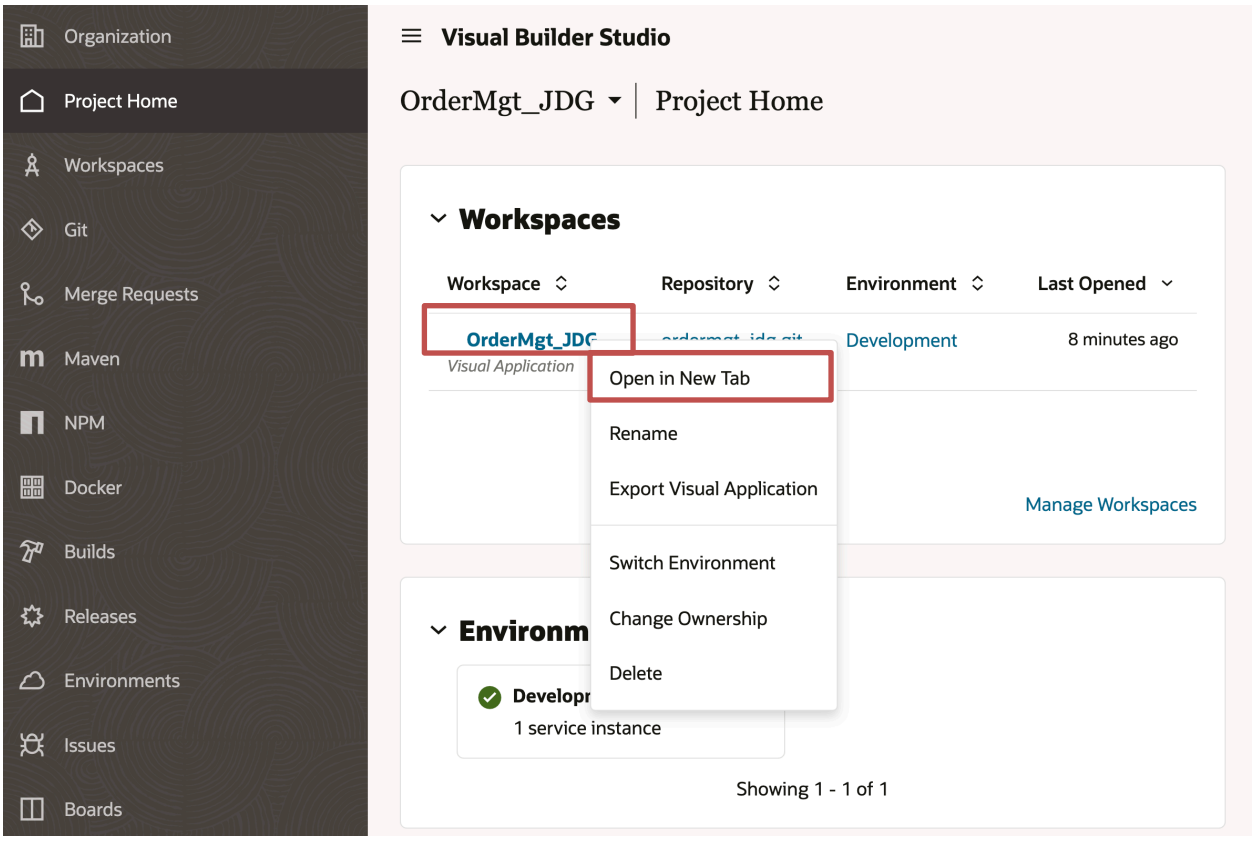
2. Right-click the link for the workspace name and select **Open in New Tab**. This is recommended so you can easily get back to the project page in Visual Builder Studio if needed.



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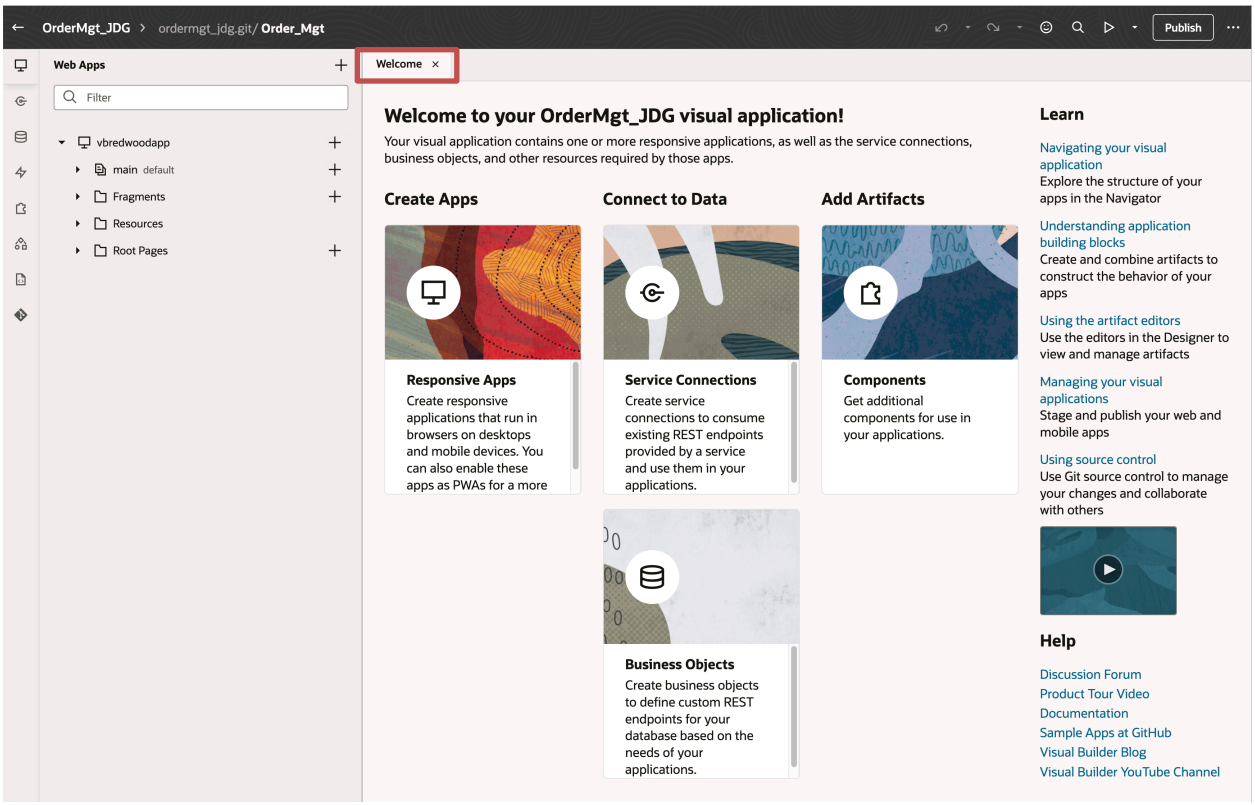
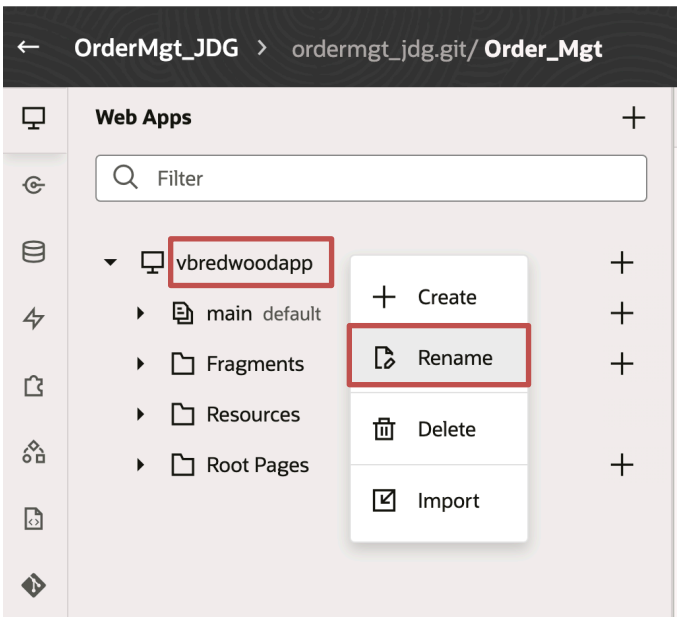
3. After the workspace opens, you are presented with the Designer. Close the Welcome tab by clicking the **X**.



4. Right-click **vbredwoodapp** and select **Rename**.



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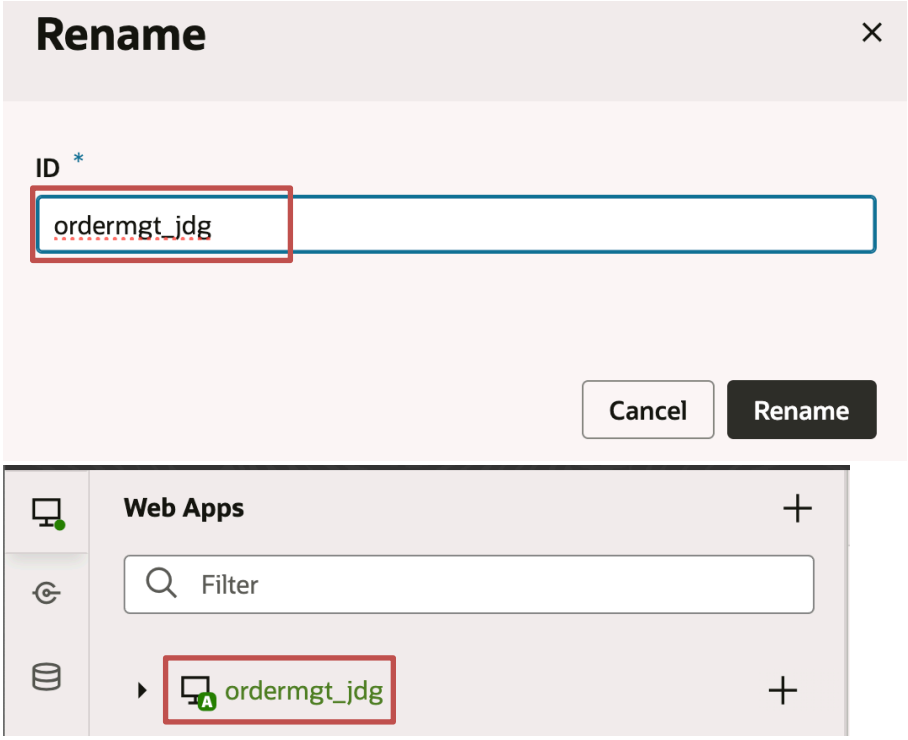
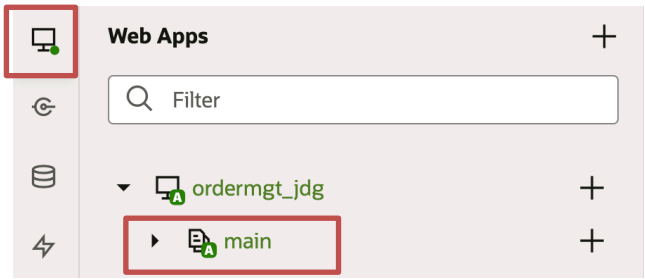
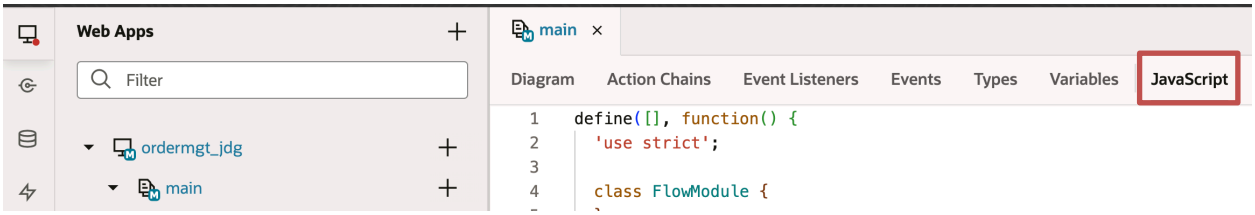
5. Replace the **vbredwoodapp** name with `ordermgt_<your initials>` and click **Rename**. Dismiss the message saying you have unsaved changes.



6. In the Web Apps Navigator on the left, expand **ordermgt_<your initials>** select the **main** flow.



7. Add custom JavaScript functions to be used for formatting. Click the **JavaScript** tab.



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8. Select all the code and replace (paste over it) with this code: (Copy the code from the text file supplied with the course). This comprises several JavaScript functions you will use throughout the course for formatting.

```
/* Copyright (c) 2023, Oracle and/or its affiliates */

define(['ojs/ojlogger',
      'ojs/ojconverterutils-i18n',
      'ojs/ojconverter-number',
      'ojs/ojconverter-datetime',
      'oj-sp/common-util/common-util'], function(Logger,
IntlConverterUtils, NumberConverter, DateTimeConverter,
utilityClass) {
  'use strict';

 var FlowModule  = function FlowModule(){
// get the default date format pattern from user profile
    var dateOptions = {
      formatStyle: "date",
      pattern: utilityClass.getDateFormatPattern()
    };
    // create just one instance of converter per application
    this.dateConverter = new
DateTimeConverter.IntlDateTimeConverter(
      dateOptions
    );
    // create map to cache currency converters
    this.currencyConverterMap = new Map();
  };

  FlowModule.prototype.formatDate = function (date) {
    return this.dateConverter.format(date);
  };
  FlowModule.prototype.formatCurrency = function (currCode, value)
{
    // if caller provides the currency code then use it otherwise
get the default one from the user profile
    currCode = currCode ? currCode :
utilityClass.getCurrencyCode();
```

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```
    // if converter doesn't exists in map crearte a new one and
update cache
    if(!this.currencyConverterMap.get(currCode)) {
      var numberOptions = {
        style: "currency",
        currency: currCode
      };

      // update the cache with new converter
      this.currencyConverterMap.set(currCode, new
NumberConverter.IntlNumberConverter(numberOptions));
    }
    return this.currencyConverterMap.get(currCode).format(value ||
0);
  };



  return FlowModule;
});
```

Tip: You can create global JavaScript functions at the application level that can be seen by all flows and pages if needed.

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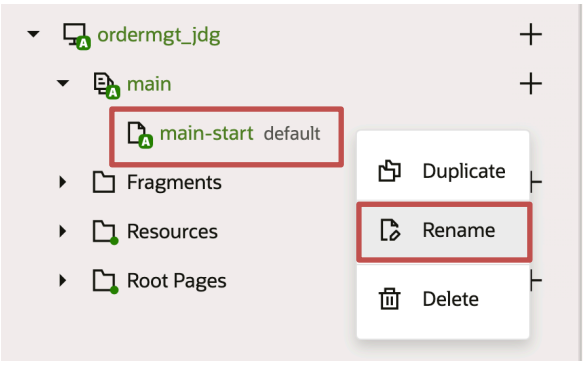
main ×

Diagram | Action Chains | Event Listeners | Events | Types | Variables | JavaScript | JSON | Settings

```javascript
/* Copyright (c) 2023, Oracle and/or its affiliates */

define(['ojs/ojlogger',
        'ojs/ojconverterutils-i18n',
        'ojs/ojconverter-number',
        'ojs/ojconverter-datetime',
        'oj-sp/common-util/common-util'], function(Logger, IntlConverterUtils, NumberConverter, DateTimeConverter, utilityClass) {
  'use strict';
                                  (local function) FlowModule(): void

 var FlowModule  = function FlowModule(){
// get the default date format pattern from user profile
    var dateOptions = {
        formatStyle: "date",
        pattern: utilityClass.getDateFormatPattern()
    };
    // create just one instance of converter per application
    this.dateConverter = new DateTimeConverter.IntlDateTimeConverter(
        dateOptions
    );
    // create map to cache currency converters
    this.currencyConverterMap = new Map();
  };

  FlowModule.prototype.formatDate = function (date) {
    return this.dateConverter.format(date);
  };
  FlowModule.prototype.formatCurrency = function (currCode, value) {
    // if caller provides the currency code then use it otherwise get the default one from the user profile
    currCode = currCode ? currCode : utilityClass.getCurrencyCode();

    // if converter doesn't exists in map crearte a new one and update cache
    if(!this.currencyConverterMap.get(currCode)) {
      var numberOptions = {
          style: "currency",
          currency: currCode
      };

      // update the cache with new converter
      this.currencyConverterMap.set(currCode, new NumberConverter.IntlNumberConverter(numberOptions));
    }
    return this.currencyConverterMap.get(currCode).format(value || 0);
  };


  return FlowModule;
});
```

9. Close the **main** tab when done. Your changes are always saved automatically.

10. In the Web Apps Navigator on the left, expand the main flow. Right-click **main-start** and rename it to `main-welcome`.



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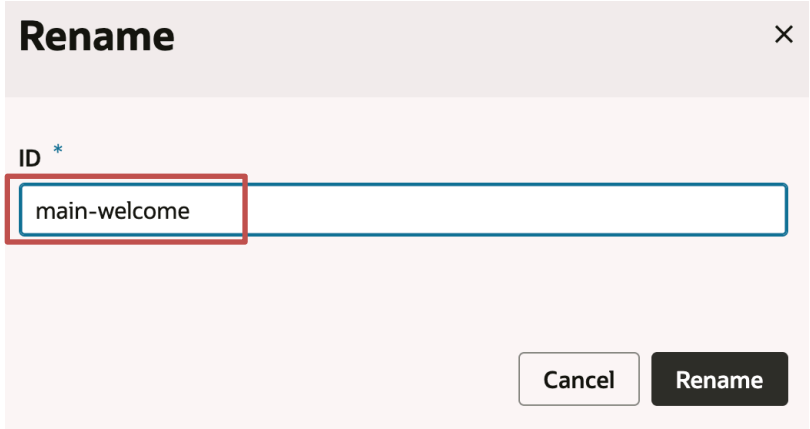
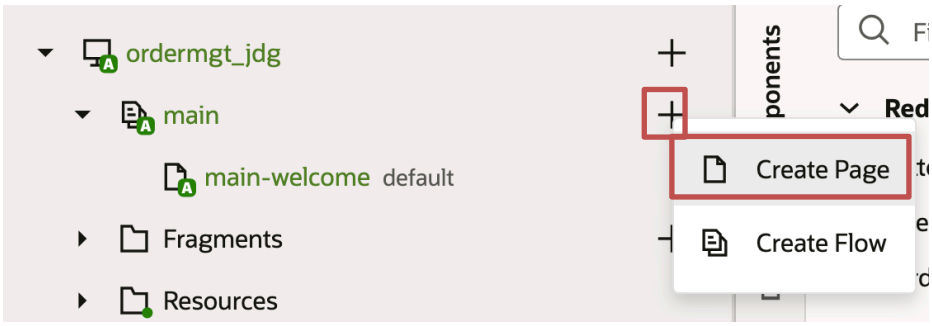
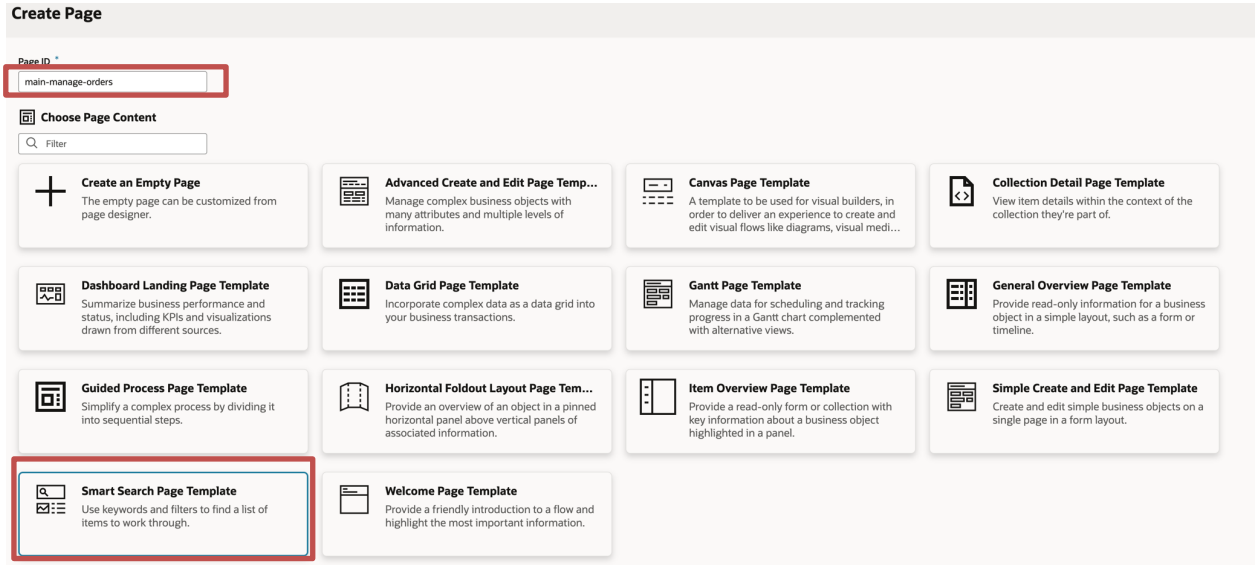


11. Add a new page based on the **Smart Search Page Template**. Click the **+** for the **main** flow and create a new page named `main-manage-orders`. Select the **Smart Search Page Template** and click **Create**.





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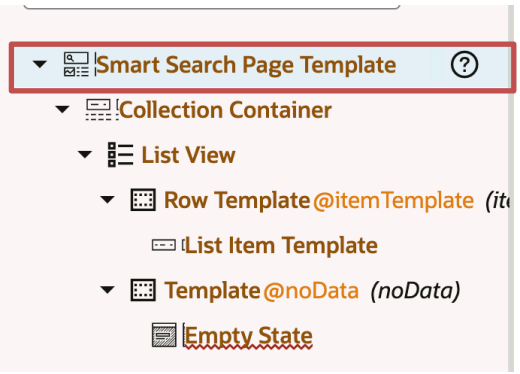
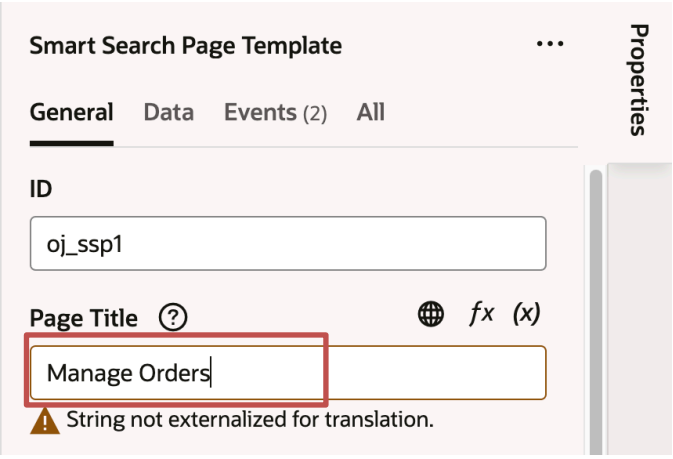
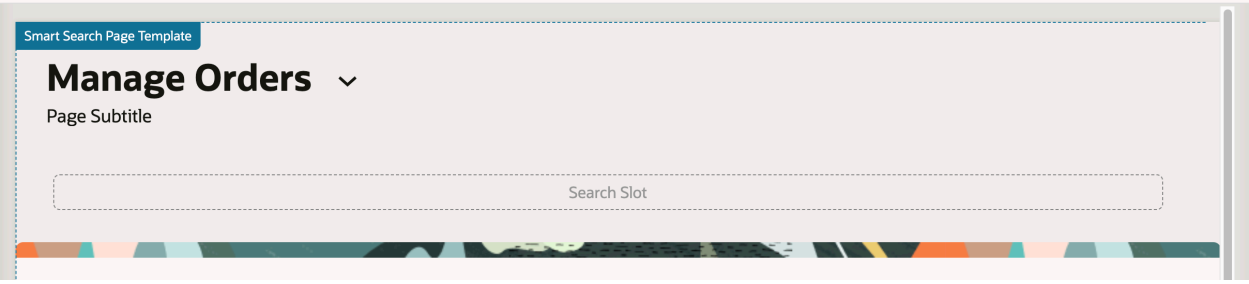
12. Click the **Smart Search Page Template** in the **Structure** pane and enter `Manage Orders` for its **Page Title**.







You'll complete the development of this page in Practice 3.

Tip: All pages are supposed to have a title; it is a required attribute.

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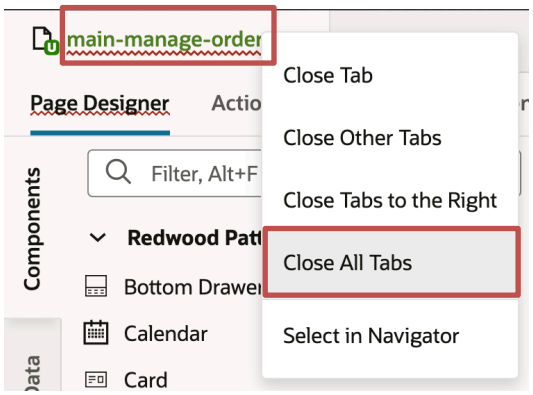
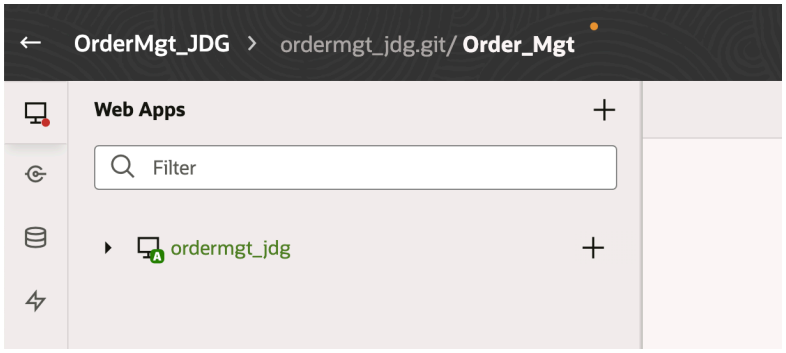
13. Right-click the **main-manage-orders** tab and select **Close All Tabs** and collapse the **ordermgt_jdg** web app.





This completes this practice.

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