Lab 1: Deploying to Oracle Application Container Cloud Service

In the labs for this week, deploy a REST application to Oracle Application Container Cloud. Then, test the application using cURL commands.

Lab 1-1: Deploy an Application

In this lab, interact with the Oracle Application Container Cloud Service by deploying an application.

Download Employee REST Application

First, download the final version of the application you will build in this course. The cloud version of the application is contained in an application archive zip that is ready to deploy. The version of the application you can run locally has a `.jar` extension. Open a web browser.

1. Download the lab zip files from:

- http://www.oracle.com/webfolder/technetwork/tutorials/mooc/JavaMicroservices/week1/lab01-curl.zip

- http://www.oracle.com/webfolder/technetwork/tutorials/mooc/JavaMicroservices/week1/lab01-accs-app.zip

- http://www.oracle.com/webfolder/technetwork/tutorials/mooc/JavaMicroservices/week1/lab01-local-app.zip

2. Unzip the files into a local directory. For example: `c:\labs\lab01`

Deploying the Application

To deploy your application, follow these steps.

1. Log into your account.

2. From your Oracle Cloud Dashboard, open the Oracle Application Container Service Console.

3. Click on the **Create Application** button.

4. Select Java as your platform type.

5. Enter the following information in the Create Application Dialog

   - Name: EmployeeRESTApp

   - Upload Archive: Select the `EmployeeRESTApp-1.0-dist.zip` included in the `lab01.zip` download.

   - Notes: Spring Boot App

6. Click **Create**.

7. Click OK to confirm that the application is being deployed.

8. While waiting for the application to deploy you may.

   - Examine the Overview tab.

   - Examine the Deployments tab.

   - Examine the Administration tab.

9. Once the application is deployed, click on the URL for the application.

10. Explore the REST calls in your browser.

    - Click on the `/employees` link.

    - Click the remaining URLs and examine the JSON data returned from the application.

    - Test the HTML5 REST Client by clicking on the link for that application.

11. This completes this lab.

Run the REST Application Locally

1. Open a Command Prompt window.

2. Change into the directory you created. For example:
   `c:\labs\lab01.`

3. Start the REST application:

   ```
   java -jar EmployeeRESTApp-1.0.jar
   ```

4. Explore the REST calls in your browser.

   - Click on the `/employees` link.

   - Click the remaining URLs and examine the JSON data returned from the application.

   - Test the HTML5 REST Client by clicking on the link for that application.

5. Press `Control-C` to exit the application.

Lab 1-2: Install Git for Windows

Git for Windows provides a command line interface for interacting with Git repositories. In the next week, you use Oracle Developer Cloud Services you create a Git repository in the cloud and clone it using Git for Windows. In the next lab, you use the curl command bundled with Git for Windows to test a REST application deployed to Oracle Application Container Cloud Service.

The following steps show how to install the Git for Windows.

1. Download and install Git from https://git-scm.com/download/win.

2. Select the first option, **Use Git from the Windows Command Prompt**, during the installation.

3. To run Git on Windows, use the provided **git bash** or **git shell** application to open a command line with Git integration. An option to **Git Bash Here** should appear when you right-click a folder.

4. Check your Git version:
   ```
   $ git --version
   ```

5. Display the Git help screen:
   ```
   $ git --help
   ```

Lab 1-3: Test your Application with curl

In this lab, create curl commands to test your deployed application.

1. Open a Git Bash terminal. The `curl` command is included in the Git for Windows installation.

2. Get a list of all employees using curl to connect to the cloud application or the application running locally:

    - `curl -i -X GET` https://appName-idenityDomain.region.oraclecloud.com/employees

    - `curl -i -X GET` http://localhost:8080/employees

3. Use curl to retrieve the following employee lists using the specified REST URLs.

    - `/employees/lastname/H`

    - `/employees/department/M`

    - `/employees/title/S`