D387 Advanced Java

Scenario

You are working for a company located in Toronto, Canada, that schedules hotel reservations. As a software developer, your job is to modify the Landon Hotel scheduling application to meet new requirements under new management. You will choose any application user you would like.

A. Create a private external GitLab repository named “yourstudentID_D387” and do the following:

- Push the code from the IDE to the repository.

- Add “WGU-Evaluation” as a member with reporter access to your repository on GitLab.

- Commit with a message and push when you complete each requirement listed in parts C1, C2, C3, D2, and D3.

  Note: You may commit and push whenever you want to back up your changes, even if a requirement is not yet complete.

- Submit a copy of the GitLab repository URL and a copy of the repository branch history created following the completion of all task requirements and retrieved from your repository, which must include the commit messages and dates.

B. Create a README file that includes the following:

1. Include notes describing where in the code to find the changes you made for each requirement in parts C1, C2, C3, D2, and D3. Each note should include the label for the task requirement (e.g., C1, C2), file name, line number, and change.

2. Include the URL to the GitLab repository.

C. Modify the Landon Hotel scheduling application for localization and internationalization by doing the following:

1. Install the Landon Hotel scheduling application in your integrated development environment (IDE). Modify the Java classes of application to display a welcome message by doing the following:

   a. Build resource bundles for both English and French (languages required by Canadian law). Include a welcome message in the language resource bundles.

   b. Display the welcome message in both English and French by applying the resource bundles using a different thread for each language.

   Note: You may use Google Translate for the wording of your welcome message.

2. Modify the front end to display the price for a reservation in currency rates for U.S. dollars (),Canadiandollars(C), and euros (€) on different lines.

Note: It is not necessary to convert the values of the prices.

3. Display the time for an online live presentation held at the Landon Hotel by doing the following:

    a. Write a Java method to convert times between eastern time (ET), mountain time (MT), and coordinated universal time (UTC) zones.

    b. Use the time zone conversion method from part C3a to display a message stating the time in all three times zones in hours and minutes for an online, live presentation held at the Landon Hotel. The times should be displayed as ET, MT, and UTC.

    Note: Remember to update your README file after every requirement.

D. Explain how you would deploy the Spring application with a Java back end and an Angular front end to cloud services and create a Dockerfile using the attached supporting document "How to Create a Docker Account" by doing the following:

1. Build the Dockerfile to create a single image that includes all code, including modifications made in parts C1 to C3. Commit and push the final Dockerfile to GitLab.

2. Test the Dockerfile by doing the following:

    • Create a Docker image of the current multithreaded Spring application.

    • Run the Docker image in a container and give the container a name that includes D387_[student ID].

    • Submit a screenshot capture of the running application with evidence it is running in the container.

3. Describe how you would deploy the current multithreaded Spring application to the cloud. Include the name of the cloud service provider you would use.

E. Export your project from the IDE as a compressed file.

Note: You will submit the compressed file with the repository branch history file and the URL to the GitLab repository that contains the Dockerfile. Make sure both the Angular front end and the multithreaded Spring application are both submitted.

F. Demonstrate professional communication in the content and presentation of your submission.