Overview

Software II – Advanced Java Concepts refines object-oriented programming expertise and builds database and file server application development skills. You will learn about and put into action lambda expressions, collections, input/output, advanced error handling, and the newest features of Java 11 to develop software that meets business requirements. This course requires intermediate expertise in object-oriented programming and the Java language.

Competencies

### Course Planning

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

### Lambda

The graduate incorporates lambda expressions in application development to meet business requirements more efficiently.

### Advanced Exception Control

The graduate incorporates advanced exception control mechanisms in application development for improving user experience and application stability.

### Database and File Server Applications

The graduate produces database and file server applications using advanced constructs in a high-level programming language to meet business requirements.

### Localization API & Date/Time API

The graduate applies the localization API and date/time API in application development to support end-users in various geographical regions.

### Collections (Streams and Filters)

The graduate incorporates streams and filters in application development to manipulate data more efficiently.

WGU Software II: C195\_Appointment\_Schedule\_App

Author: Piano Hagens

Contact information: phhagen@wgu.edu

Application version: 02

Date: 05/12/2021

• IDE version: IntelliJ Community 2020.3.1

• JDK of version 11: Java SE 11.0.2

• JavaFX version compatible with JDK 11: JavaFX-SDK-11.0.9

• MySQL Workbench 8.0 CE https://dev.mysql.com/downloads/workbench/

•The purpose of this application is to develop a GUI-based scheduling desktop application, in order to pass C195 performance assessment requirements. I named it C195\_Appointment\_Schedule\_App.

C195\_Appointment\_Schedule\_App allows users to create customer records and schedule appointments for customers. This task has provided a MySQL database that does not allow to modify the database structure. All data of this app going to use that database includes user data, customer data, and appointment data.

•Directions for how to run the C195\_Appointment Schedule App

Steps:

1. User Login => Home Page, Home page is the dashboard to Customer Record Page or to Schedule Appointment Page.

To test the User login form, use following login Credentials:

\*Test case 1:

UserName: test

Password: test

or

\*Test case 2:

UserName: admin

Password: admin

2. Customer Record Page => On this panel of the app can perform can add/edit/delete customer records. Auto generate Customer ID, and provide Comboboxes that retrieve country data and divisions data according selected country name from the database. Each input field has set validator according the field data type, and auto refresh page immediately.

3. Schedule Appointment Page => This is the primary feature of the app, user can add/edit/delete appointments. On the input field, the app provide handy time option like Datapicker and Comboboxes for time slots, provide Comboboxes that retrieve users table data, contacts table data, customers table data from the database. There is a 15 minutes appointment reminder shows at the bottom of the page.

4. Show Report Page->There are View Appointment Reports button on both Home page and the Appointment App page. Either one will take user to the report page, and then user can pull report by choosing month and type, contact, or user.

•Description (Appointment Reports):

1.View Appointment Reports --> By selecting type and month, display the total number of customer appointments and selected type and selected month.

2.View Appointment Reports --> By selecting contact, display appointments that assigned to contact person. This report include appointment ID, title, type and description, start date and time, end date and time, and customer ID.

3.View Appointment Reports --> By selecting user, display appointments that scheduled by user. This report include appointment ID, title, type and description, start date and time, end date and time, and customer ID.

•MySQL Connector driver version: mysql-connector-java-8.0.23

Lambda expressions locations:

1. homepageController.initialize

2. reportController.onUserReportCombo