

# MSSE670\_Week5\_Assignment

Thursday, September 1, 2022 3:57 PM

## Week 5 Assignment, Business layer

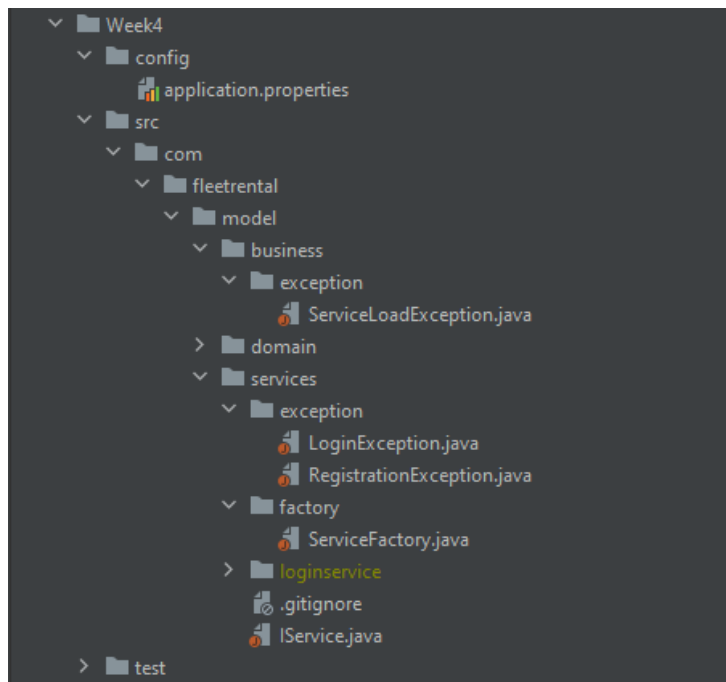
### Important Notes

- This week, a project must run as viewed from both the perspective of the tests and the Driver Class to receive a passing grade. In your Driver class, you should instantiate and configure the Composite object, pass it to the services, and print returned output from the methods.
- Be sure to include screen shots of sample runs and passed tests in your docs folder.

### Plan

- Refer to the **Fleet Rental Sample Code** for details about how to program your project.
- You will deliver the next iteration of your course project. This week, the Business Layer will be developed.
- This week you will:
  - Develop the business layer logic that will use the services you previously developed. In previous assignments you developed at least two services in addition to the Login Service.
  - Implement design patterns discussed in the class material and refer to the sample code to understand how these are implemented.
  - The new design patterns include:
    - The Façade
    - Manager and Manager Supertype (Layer Supertype).
  - Previous design patterns include:
    - Marker Interface
    - Separated Interface
    - Plugin
    - Factory
    - Value Objects (Domain classes)
  - Implement exceptions for all services in your application and **ensure that exceptions are propagated to the business layer**.
  - As before, the application.properties file must be loaded at runtime using the following (spaces are important).
    - Dprop\_location=<pathname>

### Code View of Structure



### What to turn in

You will implement your Business Layer following the details above. The should include:

- Appropriate naming conventions and style (see sample code)
- Packages in the Business Layer that implement a **Façade** design pattern.
- **Manager** and **manager supertype**.
- **PropertyManager** to allow loading of the properties file at application startup.
- **Exceptions** in the Business Layer and Services Layer, ensuring that all exceptions are propagated to the Business Layer.
- An **application.properties** file that is used to load the implementation of the services at runtime.
- A **Driver Class** with a main method that runs the program. This week, this should be put in the Presentation Layer so that it is above the business layer.
- Tests for the Business Layer including tests that handle exceptions.
- A docs (see location in the Sample Code) folder with screen shots of completed runs using the Driver as well as successful test runs.
- **Code uploaded to a source control repo and link submitted in Slack. Code for Week 5 must be clearly labeled in a folder or branch.**