

## Quest 1 – DM-06 – Lecture Video Implementation (10 Experience Points)

Well met hero. Your first quest will be to implement the implementation that you saw in today's video (lecture). Follow the video first before you attempt Quest 2 below.

## Quest 2 – DM-06 – HealthOS (60 Experience Points)

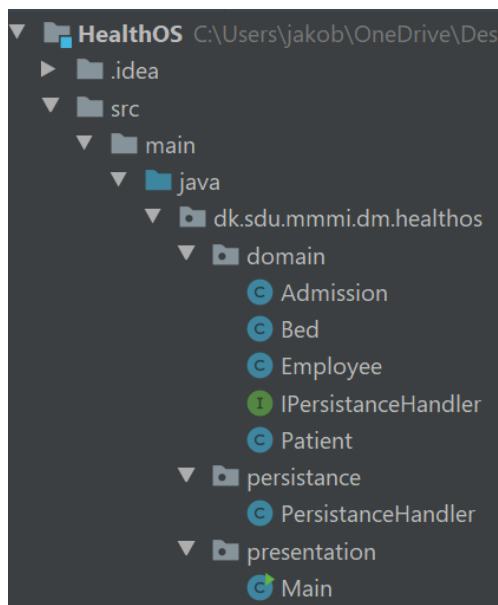
This quest puts you – the hero of the assignment – on the journey of completing the HealthOS implementation. Our medics need a system to help control the magic corona pest. Previous adventurers have already tried to complete this quest but horribly succumbed to the pest created by the evil undead Beer Lich – Viscount Rext Lestat. Brave adventurer, please complete the application, and help stem the tide of the growing plague.

The zip file you have opened here holds the last remnants from the previous adventurer group. The zip file contains the following files:

1. Assignment.pdf (this file)
2. HealthOS.sql
3. HealthOS.zip (Thanks goes to Oliver Nordestgaard for creating the implementation)

File 1 contains the days quests, while the HealthOS.sql file holds the database you will have to re-create in your own PostgreSQL server. The HealthOS.zip includes the previous adventurer's application for HealthOS that you must complete for this quest to be complete.

1. First, create a database, and import the data from HealthOS.sql
2. Unzip HealthOS.zip and open it in IntelliJ IDEA. The contents of the file should look something like below:



3. Additional Quest Background Information: The HealthOS has been created with three modules: The Presentation layer (A console application), a Domain Layer, and finally, a persistence layer. Also, the PostgreSQL driver has already been imported using Maven. The three layers are built in

a way where the presentation layer is dependent on the Domain Layer, and the Persistence Layer also depends on the Domain Layer. This is due to the interface, `IPersistenceHandler`, in the Domain Layer, which effectively inverts the normal dependency between the Domain Layer and the Persistence Layer. This phenomenon is aptly named Dependency Inversion. Also, the `PersistenceHandler` class is implemented using a Singleton Pattern and only returns the interface `IPersistenceHandler`.

4. Open the `PersistenceHandler`. Start by updating the Login Information for the database, and the database name that you created in step 1.
5. Explore the class. See that `getEmployees()` and `getEmployee()` is already implemented. Now you must implement the 11 methods below that are currently awaiting implementation.
6. Update the `Main.java` file in the presentation layer to support the methods `createEmployee`, `createPatient`, `createBed`, `createAdmission`, and finally `deleteAdmission`.
7. Adventurer – you finally reached the end of the quest, and helped push back the Lich's plague. Enjoy, party (in safe corona isolation!!), and let everyone know in the #general chat how many experience points you accumulated today! Congratulations!