**Assignment-5-DDD**

**Contents:**

* My zip folder contains my eclipse projects: ClinicApp, ClinicDomain, ClinicInit, ClinicRoot.
* My executable file named ClinicApp.ear also included in the zip folder.
* There is a video which demonstrates the deployment of the executable file on payara server.

**Testing Operations:**

* Created 4 patients: Ishan Pandya, John Doe, Mitul Shah, Malav Patel.
* Created 2 providers: Rohan Mehta, Dilip Mehta.
* Treatment added: Drug-Treatment, Surgery, Radiology.
* Retrieved patient information through getPatient() and getPatientByPatientId() method.
* Retrieved provider information through getProviderById() and getProviderByNPI() method.
* All this testing operations are included in InitBean class of ClinicInit project.

**Use of Patterns:**

1. **Factory Pattern:** Used to create patient, provider and treatment entities
   1. IPatientFactory: It defined method for creating patient entities.
   2. IProviderFactory: It defines method for creating provider entities.
   3. ITreatmentFactory: It defines method for creating treatment entities.
2. **Repository Pattern:** Used to access and store the patient, provider and treatment entities.
   1. IPatientDAO: Used for persisting and retrieving the patients from database.
   2. IProviderDAO: Used for persisting and retrieving the providers from database.
   3. ITreatmentDAO: Used for persisting and retrieving the treatments from database.
3. **Aggregate Pattern:** Used to access and persist treatment information through patient and provider entities.
4. **Visitor Pattern:** Provides a callback operation for each treatment type.
   1. ITreatmentExporter: Defines a callback object for drugtreatment, surgery, and radiology treatment types.
5. **Entity manager:** It is used for performing query operations on the database.