Lecture 2:

1. **Domain Model**

* Application Design is Driven by the Business Domain
* The domain model is the central, organizing component of the Enterprise.
* ALL application functionality is derived from it.
* The rest of the Enterprise is involved in modifying, validating, moving, translating and presenting …the Domain Model – DATA

1. **Domain driven design**

* Technique for clarifying Domain Model complexity with an “eye” towards simplification
* Recognizes that a “single” domain model for a large system is not feasible or cost-effective
* DDD divides up a large system into Bounded Contexts, Bounded Context is a central DDD pattern
* DDD influences Microservices

1. **Basic Function of ORM**

* Acts as a gateway between OO Domain & Relational database
* Maps Object to Relational Model & vice versa

1. **ORM main point**

* An Object Relational Mapping framework provides an Object-Oriented approach to data storage; simplifying the access to the database and effortlessly handling the persistence management for us.

1. **Basic ORM Feature**

* Mapping Classes to Tables
* Out of the box CRUD Functionality
* Hydrating Entities
* Executing custom “OO” query
* Concurrency Support
* Cache management
* Transaction management

1. **Spring ORM Support**

* Integrate with Hibernate, JPA

1. **JPA**

* Is a specification not implementation. It provides consistence, reliable mechanism for data storage and retrieval that alleviate application developer from involving in persistence layer.

1. **Hibernate life time**

* An Entity manager usually exists for the short time span of (web) request
* During this time it keep a cache of all objects that it has retrieved from DB

1. **Entity Manager Factory**

* Create Entity Manager for every request
* Created once on start up
* Read all mappings
* Thread safe methods

1. **Entity class**

* JPA requires class has : A field is used as ID, default constructor, getter setter for all prop

1. **Mapping main point**

* The mapping of simple object structures to a database is done through configuration files and/or annotations. This simple configuration is enough to instruct the framework about the objects it has to control and store.