**Day 20:**

**IOC and DI Using annotation**

**@Component** : This annotation we can use on class level. This is generic annotation mainly use for POJO class.

**@Autowired :** This annotation we need to use on property level. Mainly complex property.

By default @Component annotation is not enable. We can enable using

1. xml file
2. using configuration class with few more annotation.

**@Value** : this annotation we use on property level to set initial value.

**@Scope** : this annotation to set the scope. By default singleton

Pure annotation base DI

We need to create configuration class with @Configuration annotation. This class is replacement of beans.xml file. @configuration also class level annotation.

@ComponentScan : it is class level annotation which help to enable @Component annotation. It is equal to **<context:component-scan base-package=*"com"*></context:component-scan>** tag.

**Using spring IOC and DI with XML and annotation base configuration to improve model layer with JDBC.**

**PMSUsingSpringDAOLModule**

**DataSource : it provide the database connection in secure manner. Before spring framework to achieve data source concept we were/are depends upon application server.**

**We write driver name, and connection. All developer or programmer using JNDI (Java Naming directive interface) search the database connection part of application server.**

**Spring framework provided one of the pre defined API DriverManagerDataSource. This class provide the database connection.**

**This class is part of spring jdbc module.**

**Database information we can configure in xml file or java configuration class or properties.**

**Spring framework provided specific annotation for DAO layer is @Repository.**

**Spring framework provided specific annotation for service layer is @Service**

JavaBean

Service class

Dao class

Resource class

Spring provided one of the pre defined API ie **JdbcTemplate** part of spring dao module. JdbcTemplate internally wrap core Jdbc code and provided more functionality to improve DAO layer.