# **Spring configuration and IOC assignment**

**IOC – Inversion Of Control:**

* IOC is core principle of spring and it will injects objects instead of we do manually by adding extra code.
* This helps our application to be loosely coupled and maintainable.

**DI – Dependency Injection:**

* These are the 3 ways to inject a bean into out class from spring container.
* The Class Engine will be annotated with @Component annotation or configured in XML as a bean.

**Constructor Injection:**

public Car(Engine engine) {

this.engine = engine;

}

**Setter Injection:**

@Autowired

public void setEngine(Engine engine) {

this.engine = engine;

}

**Field Injection:**

@Autowired

private Engine engine;

**Configuration in Spring:**

* Spring allows us to configure beans in multiple ways and the older one which is introduced first, it is XML configuration.
* In Springboot we can also configure using annotations such as @component & @Bean in java class.
* Also we can use @Component,@service,@Repository annotations for automatic scanning.