

Spring Framework:

Framework for building Java Applications

Simpler and lightweight alt to J2EE

Early version of J2EE complex object management

Multiple deployment descriptors

Multiple interface

Poor Performance

Rod Johnson

Lightweight Object management tool : Object Factory/Bean Factory/Application Context

Spring :

=> highly Modular

=> Independent to be used : loose coupling among modules

=> Java POJOs : Lightweight dev process

Relationship among resources of Spring application

1. IoC : Inversion of control
2. DI : Dependency Injection
3. AOP : Aspect Oriented Programming (proxy)

Modules

Core Container : Bean Factory

Web Layer : MVC Framework

Data Access Module : JDBC/ORM/Transaction

Infra : AOP/Messaging

Testing : JUnit/Mocking

Spring Projects:

Spring Data

Spring Cloud

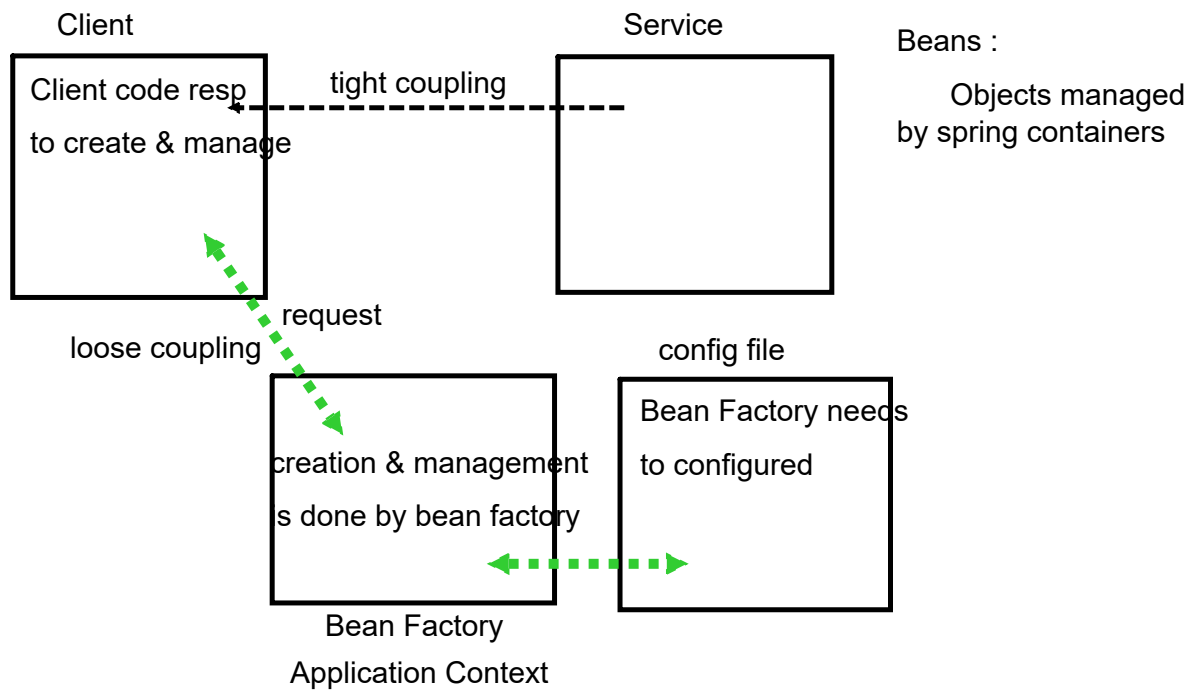
Spring security

WebFlux

1. IoC : Inversion of Control

Outsourcing the Creation and Management of Object :

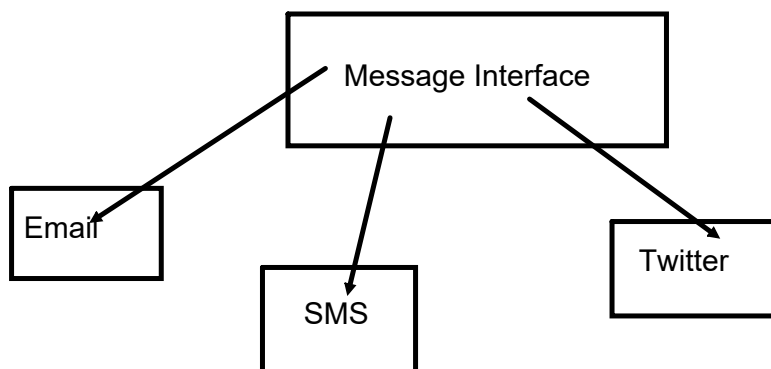
Object Factory/Bean Factory



Spring Jar files : <https://repo.spring.io/release/org/springframework/spring/>

Configuration of Bean Factory

1. XML based config (legacy)
2. Annotations
3. Pure Java Code



```
<bean id="mbservice" class="com.wf.training.spring.service.EmailService">
```

key: by which bean is exposed

class: whose bean we want to create

DI : Dependency Injection

Creation of complex object might have dependency on other object :

injecting those dependency with the help of Spring Container

XML based config:

1. Constructor based
2. Setter based

