

• CB FSD - API End Points and Communication

Spring framework, spring boot, web service using spring boot and junit testing etc.

Spring boot with connecting database using jdbc, hibernate/jpa, spring data etc.

Spring micro service etc.

Creating rest api using spring boot and consume those rest api with help of angular project and angular testing.

JEE (Java Enterprise Edition) – Servlet, JSP and EJB

Servlet

JSP : Java Server Pages

EJB : Enterprise Java Bean

MVC

View → HTML/JSP

Controller → Servlet

Model → JavaBean class, Service class, Dao class, Resource class etc

JSP and Servlet. Both are server side technologies. The object creation of jsp and servlet is taken care by web container.

Model layer : inside model layer all classes ie java bean, service class, dao class, resource class etc.

They are normal java classes. We need to create the object of those classes.

Servlet is by default multi threaded.

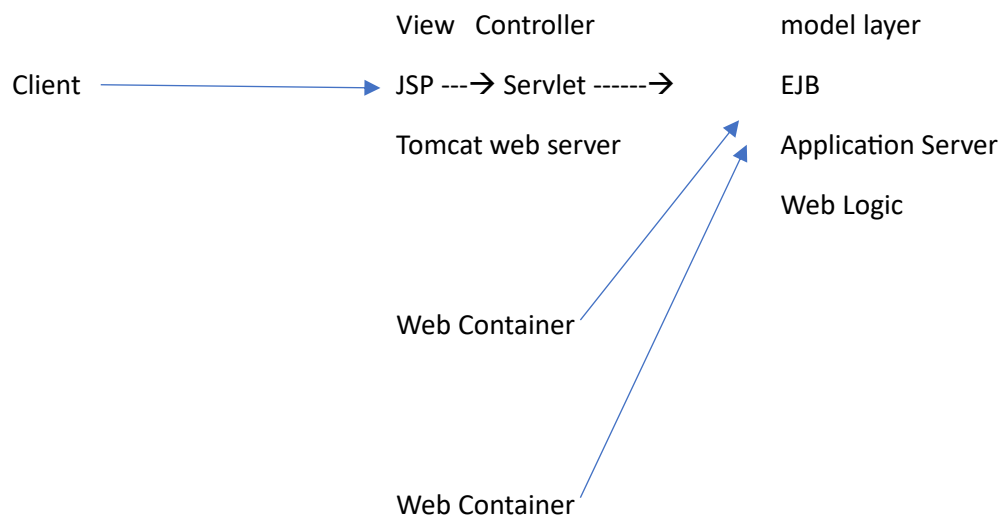
To improve model layer EJB came in picture.

Enterprise Java Bean

Client →

Servlet and JSP develop using web container in tomcat server.

Model layer maintain by EJB developer using application server ie Web Logic or JBoss.



EJB was/is very complex. EJB run in application server.

Framework: framework provided lot of pre defined API ie classes and interfaces which internally connected to each others to do specific task. If we develop any application without framework we need to do any configuration. But if we develop any application using any framework 60 to 70% task taken care by framework. But framework is not final product it like a template or protocol. Framework internally provide implementation of design pattern. Design pattern is best practise or solution of repeating problem statements.

Angular framework Vs React JS

React JS is library

Node js contains lot of modules using those modules we can create server side programming language. Like Java, python, etc.

MEAN Stack

MERN Stack

Mongo DB Express JS Angular Node JS

Mongo DB Express JS React JS Node JS

Express JS is like JAX_RS in java to create REST API

Angular

Express js we can create rest api
Connect

using node with mongo db module we can
mongo db database. / mysql

Java technologies

.net framework

Java Framework

Struts Framework: Struts is an open source framework provided by Apache. Struts is MVC framework. Which provided lot of api to improve controller, view and model layer. But in all layer controller is very strong means they provide lot of api to improve controller layer. Struts generally known as controller centric framework.

JSF (Java Server Faces) : JSF is part of oracle. JSF is mvc framework. JSF is known as View centric framework.

Hibernate framework : Hibernate is an open source framework which help to improve DAO layer. Hibernate is replacement of jdbc.

Spring framework : spring is an open source light weighed framework. Spring also known as layer architecture or onion architecture framework.

Spring framework modules

Spring core

Spring context

Spring MVC : spring MVC is known as model centric framework.

Spring Rest

Spring DAO

Spring ORM it will allow to integrate with orm like hibernate or jpa

Spring boot

Spring micro service

Spring cloud

Spring security

Etc

IOC : Inversion of Control : IOC is a concept. It is also known as programming design pattern. In place creating any resource explicitly allow to create by container. If container create it will maintain properly. On demand you can pull from container use it and leave it.

Web Container : Web Container only create object of servlet and jsp not for normal java class ie bean , service or dao. Web container is part of server.

EJB Container will create the object of bean or service or dao. We need to make the type of ejb. And those application must running in application server.

Spring container depending upon the application or module. Spring container say. It will create the object of normal java bean class. in Spring framework we call normal java bean class as **POJO**. Plain Old Java Object. (The class not to extends or implements any pre defined class). we need to configure using **xml or annotation**. We pull the object from spring container.

DI : Dependency Injection : DI is known as implementation of IOC. Pulling the object from a container using different ways ie DI. We can achieve 2 types of DI.

1. Constructor Base DI
2. Setter Base DI.

Spring Core and Context Module

We will do DI using Constructor base and Setter base with XML Configuration.