Day 10 Revisit ( Servlets & JSP)

* Servlets – Is a Class which gets executed in the server
* Servers – Web/Application/Database Server
* WebServer – Apache Tomcat (Popular)
* Application Server – Glassfish, JBOSS, WebLogic etc.,
* DB Server – MySQL, MS-SQL, MongoDB, Postgres etc.,
* Types of Servlet – Generic Servlet (For any protocol) & Http Servlet (Specific for Http)
* Serlvet LifeCycle (Init, service – doGet(),doPost(), destroy)
* HttpRequest, HttpResponse
* PrintWriter Object – response.getWriter
* setContentType
* reading parameters from URL – request.getParameter()
* JSP – Java Server Pages (Server Side Coding)
* Servlets & JSP are used to create dynamic content in web.
* Servlet – Embedding HTML code inside java code
* JSP – Embedding JAVA code inside html (Easy to create web pages in this way)
* JSP tags – scriptlet(<% %>), declarative(<%! %>), expression (<%= %>), directive <%@ %>, JSP action tags <jsp:[action\_name]> </jsp:[action\_name]>
* JSTL – JSP standard Tag Library
* CRUD operations using JSP & JSTL
* used setDataSource, Query, Update from SQL JSTL

Day 11 Agenda

Spring, IoC, DI, Beans, Annotations based Configuration

Spring – Is a very popular JAVA based framework, used to create enterprise level, loosely coupled java applications in easy way.

XML – Is both case and space sensitive.

Configuring in XML file is a complex process.

It used Power of POJO class. – Plain Old Java Object (A Class which is not extending other class nor implementing any Interfaces)

Spring uses two important design pattern.

IoC – Inversion of Control (Ola cab/Own vehicle, Event Mgmt Team/Arranging everything ourself)

DI – Dependency Injection (Injecting required objects at runtime)

SPRING – IoC Container

Spring Framework Modules

1. Spring Core
2. Spring Web (Spring MVC)
3. Spring AOP (Aspect Oriented Programming)
4. Spring Security (Access Control)
5. Spring Data (Interacting to any RDBMS)
6. Spring Test
7. Spring Messaging
8. Spring Transaction Management

Spring Framework is called as Framework of Frameworks.

It supports and easily integrates with other framework.

Spring Configurations

1. XML based configuration
2. Annotation based Configuration

Types of Injection

1. Constructor Injection
2. Setter Injection

<https://www.javatpoint.com/steps-to-create-spring-application>

@Bean (Method Level Annotation)

@Component - (Class Level Annotation)

<https://spring.io/guides#gettingStarted>

<https://docs.spring.io/spring-framework/docs/current/javadoc-api/index-files/index-1.html>

<https://springframework.guru/java-bean-properties-binding/>

Creating Runnable JAR & Running it in command prompt

Creating WAR and Deploying it in Tomcat