Day 4: 15 September 2024

Full Stack using Java technologies

Using these technologies you develop application software

That application run on console or browser or mobile device.

Course 3 : core Java

Oops concept, exception handling, collection framework java 8 and java 11 features

Model layer, java bean class, service class, dao class, resource class

Main class

AWT or Swing or Java FX package which help to GUI

Core Java is use to create Desktop application and database mysql or oracle and connecting using jdbc.

Web application

HTML, CSS, JS and Servlet and JSP

Login app

Actors

Admin

Manager

Sales man

Client

Customer

Etc

Spring boot Spring is like a boostrap for spring modules.

Without Spring boot if we develop any application we need to do lot of configuration using xml file, we need add more dependencies and doing these all configuration manually.

CSS Vs bootstrap

Spring boot = all spring modules – XML file + few annotation + embedded web server ie tomat.

Spring boot itself is core java project (it contains main method) but which help create any type application.

Spring boot is a standalone production grade application.

Spring boot components

Spring boot starter : Spring boot starter help to provide set of jar file in one dependencies base upon type of project we are creating.

Web Starter

Jdbc starter

Jpa starter

Testing starter

Etc

Spring boot with maven tool : pom.xml this xml file is a part of maven tool.

Spring boot with Gradle tool : xml less it contains build file.

Spring boot 3.x higher version for this version we need Java 17 mandatory.

Spring boot 3.x version use spring 6.x version modules and java 17.

Spring boot auto configuration :

Using this features base upon type of starter we added in project spring boot automatically do the auto configuration for that module.

Spring using this component they remove all xml file configuration. Spring boot provide one of the pre defined annotation ie

@SpringBootApplication = @Configuraton + @ComponentScan + @AutoConfiguation

Spring boot use application.properties file which contains all configuration details like server port number , database information etc.

In Spring Boot JSP as view deprecated. JSP is a type of servlet. Web Starter doesn’t provide jsp features for us.

Spring boot provided one of java base view engine ie Thymeleaf.

Thymeleaf is a light weighted java base sever side view created using html page. Using this view we can make html as dynamic html page.

Jdbc starter this starter is required to connect the db. This starter provide DriverManagerDataSource class and DI for JdbcTemplate. Like bean.xml or dispatcher-servlet bean tags.

Spring boot internally provided few in build database. Generally we use for testing purpose.

We are using one of the database ie H2. H2 in memory database.

After run spring boot application once up. Please open

Browser

<http://localhost:8080/h2-console>