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Spring Boot & Microservices (SBMS)
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Course Code : 39 - SBMS

Trainer : Mr. Ashok (11+ Yrs exp)

Role : Tech Lead

Whatsapp Group : https://chat.whatsapp.com/JT6HUXiwyy962rUsQiLdd6

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1) Who should learn this SBMS course ?

2) What are pre-requisites

3) What is course content

4) Duration

5) Demand for Spring Boot in market

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Pre-Requisites
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1) Core Java

2) Adv Java (JDBC & Servlets)

3) MVC Architecture

4) SQL Queries

5) UI Technologies (HTML, CSS, JS and BS)

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Course Content
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1) Spring Basics

2) Spring Core (IOC + DI + Autowiring + Scope + Lifecycle)

3) Spring Boot (Auto Configuration)

4) Spring Data JPA (Persistence Layer => DB)

5) Spring Web MVC (C 2 B) (Thymeleaf)

6) Spring REST (Distributed app) (B 2 B) (gpay -- sbi)

7) Spring Security (Authentication & Authorization)

- HTTP Basic Auth
- OAuth 2.0
- JWT

8) Microservices with Spring Cloud

- Eureka Server
- Admin Server
- Zipkin Server
- Api Gateway
- FeignClient
- Config Server
- Circuit Breaker

9) Spring Batch (bulk operations)

10) Tools (Junit, Logging, Docker, Jenkins, Redis, Kafka, Postman, Swagger)

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Course Info
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Course Code : 39-SBMS

Trainer : Mr. Ashok

Duration : 3 to 4 Months

Timings : 9:30 AM to 11:00 AM (IST) (Mon - Sat)

Mode : Classroom & Online

Notes: Daily Classnotes will be provided (soft copy)

Course Fee :

Plan-1 : 8000 INR (live classes)

Plan-2 : 10,000 INR (live classes + 1 year back up videos)

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1) Programming Language (Java -> Core Java) (JSE)

- Rules
- Syntaxes
- JDK + JRE + JVM

=> stand-alone apps

Ex: Eclipse IDE, Notepad, Calculator

2) Java Technologies (Adv Java) (JEE)

=> JDBC (DB connectivity)

=> Servlets (Web Applications)

=> JSP (we can sepeare business logic and view logic)

3) Java Frameworks

=> Framework is a semi developed software

=> Frameworks provides some common logics required for application development.

Common Logics : db ops + forms data + validations

Business Logic : banking + telecom + health care

1) Hibernate framework
2) Struts Framework (Apache)
3) Spring Framework => Spring Boot

(interface21)

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Application Layers
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1) Presentation layer

2) Web Layer (Controller)

3) Business Layer

4) DAO / Persistence layer

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What is Spring Framework
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=> Spring is a free and open source java based framework

=> Spring is called as application development framework

Note: Using spring we can develop all layers of our application.

=> Spring is developed in modular fashion

=> We have several modules in spring framework

=> We can use any spring module required for our application.

=> Spring modules are loosely coupled.

=> Spring is an versatile framework

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Spring Modules
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########## 1) Spring Core ##########

=> It is providing fundamental concepts of spring framework

a) IOC Container
b) Dependency Injection
c) Autowiring

=> Using core module we can develop classes with loosely coupling.

########## 2) Spring Context module ##########

=> It provides configuration support for spring application development.

(xml files or annotations or java based)

########## 3) Spring JDBC / DAO module ##########

=> It is used to simplify Database connctivity using java

jdbc logic

```
// load driver
// get conn
// create stmt
// execute query
// close conn
```

spring jdbc

```
                                    // execute query
                                    JdbcTemplate.execute(query)
```

Note: Spring JDBC internally using JDBC api only.

############# 4) Spring ORM #############

=> It is used to simplify Persistence layer development with ORM principles.

=> We can represent data in the form of objects

=> Spring ORM provided methods to perform curd operations using objects.

Note: Spring ORM internally using Hibernate and Hibernate internally uses JDBC api.

############# 5) Spring WEB MVC #################

=> It is used to develop web applications (C 2 B)

=> We can avoid boiler plate code in web app development like capturing form data and convert form data to object using Spring Web MVC module.

############# 6) Spring REST Module ##############

=> It is used to develop distributed applications (B 2 B)

```
                                    gpay --------> bank apps

                                    angular app ---------> java backend app
```