SPRING BOOT

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Agenda

- Why using Spring Boot?
- Spring Boot Providing
- Run With Spring Boot
  - Using Rest Controller + Dojo
  - Using Data JPA
  - Using Spring Security
  - Using Testing
  - Deploy on Web Server
- How to customize (Extension)
  - Using Properties File
  - Using YAML

Why using Spring Boot?

- Easy to create stand alone application.
- Less Configuration
- Running as micro service.
- Providing Many features
  - Thymeleaf
  - Spring Data JPA
  - Spring Security
  - Testing

Spring Boot Providing

- Spring-boot-starter
- Spring-boot-starter-actuator
- Spring-boot-starter-aop
- Spring-boot-data-jpa
- Spring-boot-starter-security
- Spring-boot-starter-test
- Spring-boot-starter-web
- Spring-boot-starter-thymeleaf
- Etc.

Run With Spring Boot

- Config Maven
  - Parent
    ```
    <parent>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-parent</artifactId>
    <version>1.2.1.RELEASE</version>
    </parent>
    ```

  - Adding Dependency
  - Adding Properties
    - Java.version
    - Start-class

Lab 1 – Start Spring Boot

- Running Spring Boot Stand Alone

Lab 2 – Hello World

- Create RestController
- Create Page
  - Calling Rest with Dojo

Using Spring Data JPA

- Adding Config on Maven

```xml
<dependency>
<groupId>org.springframework.boot</groupId>
<artifactId>spring-boot-starter-data-jpa</artifactId>
</dependency>

<dependency>
<groupId>org.hsqldb</groupId>
<artifactId>hsqldb</artifactId>
<version>2.3.2</version>
</dependency>
```

Using Spring Data JPA (Cont.)

- Adding Annotation
  - @EnableJpaRepositories

Lab4 Create Page to Load Data

- Config Spring Data JPA

Lab5 Search Page*

- Customize Spring Data JPA
- Using QueryDSL

Using Spring Security

- Adding Config Maven

```
<dependency>
<groupId>org.springframework.boot</groupId>
<artifactId>spring-boot-starter-security</artifactId>
</dependency>
```

- Adding Annotation
  - @EnableWebMvcSecurity

Lab 6 – Basic Authentication

- Create Login Page
- Create Result Page
- Create Logout Page

Lab7 – Authentication With Database

- Checking User from Database

Testing

- Adding Config on Maven

```
<dependency>
<groupId>org.springframework.boot</groupId>
<artifactId>spring-boot-starter-testing</artifactId>
</dependency>
```

Lab 8 - Testing

- Create Unit Testing for all classes

Deploy on Web Server

- Adding
  - Extended SpringBootServletInitializer

- Changing Maven to building war fild

Customize

- Create application.properties
  - Customize

Q&A

Thank you

Lab 5 – Basic Authentication

- Create Login Page
- Create Result Page
- Create Logout Page

Lab6 – Authentication With Database

- Checking User from Database

Testing

- Adding Config on Maven

```
<dependency>
        <groupId>org.springframework.boot</groupId>
        <artifactId>spring-boot-starter-testing</artifactId>
</dependency>
```

Lab 7 - Testing

- Create Unit Testing for all classes

Deploy on Web Server

- Adding
  - Extended SpringBootServletInitializer

- Changing Maven to building war file

Customize

- Create application.properties
  - Customize

Lab8 Deploy

- Running Application on Web Server

Q&A

Thank you