Thursday, August 3, 2023 9:57 PM

## **TOPICS/MODULES**

- 1. Annotations
- 2. Spring boot properties
- 3. H2 database
- 4. Thyme leaf
- 5. Spring Data JPA
- 6. JDBC Template
- 7. Rest Template/Web Client
- 8. Packaging(WAR/JAR)
- 9. Application Server
- 10. Mockito/JUnit
- 11. Integration Testing
- 12. Scheduling Task in Spring
- 13. Exception Handling 2

## **LEARNING OUTCOMES**

- 1. Understand how to configure a spring project
- 2. Understand how to use H2 in memory database
- 3. Know how to use thyme leaf as a template engine
- 4. Understand how to handle exceptions in spring boot
- 5. Understand logging using Log4
- 6. Understand how to use spring data JPA
- 7. Know how to consume an external API
- 8. Understand various formats of packaging Spring applications
- 9. Know how to host a WAR file on an external applications server
- 10. Learn how to test spring boot application using JUnit
- 11. Learn how to mock using Mockito
- 12. Know how to write Integration Test

## **LEARNING MATERIALS**

- 1. https://docs.spring.io/spring-data/jpa/docs/2.2.5.RELEASE/reference/html/#reference
- 2. https://spring.io/guides/gs/rest-service/
- 3. https://www.baeldung.com/rest-template
- 4. <a href="https://www.baeldung.com/spring-webclient-resttemplate">https://www.baeldung.com/spring-webclient-resttemplate</a>
- 5. https://www.mulesoft.com/resources/api/what-is-rest-api-design
- 6. https://howtodoinjava.com/spring-boot2/testing/testing-support/
- 7. https://www.smashingmagazine.com/2018/01/understanding-using-rest-api/
- 8. https://www.baeldung.com/mockito-series
- 9. https://junit.org/junit5/docs/current/user-guide/
- 10. https://javadoc.io/doc/org.mockito/mockito-core/latest/org/mockito/Mockito.html
- 11. https://howtodoinjava.com/spring-boot-tutorials/
- 12. Spring Bean Lifecycle Creation



## 13. Spring Bean Lifecycle - Creation Spring Bean Lifecycle - Creation 14. https://www.toptal.com/java/spring-boot-rest-api-error-handling\_ 15. https://mkyong.com/spring-boot/spring-rest-error-handling-example/ 16. https://www.baeldung.com/spring-boot-h2-database 17. https://www.thymeleaf.org/doc/tutorials/3.0/usingthymeleaf.html **ALGORITHM** Microsoft Stream 1. Introduction to Graph Theory. 2. Deep dive through Depth First Search 3. Breaking down Breadth First Search 4. Breadth First Search Transversal **Depth First Search Algorithm** Depth First Search Algorithm

Breadth First Search Algorithm

