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| **Course Name** | **Day** | **Topics Covered** |
| Service Layer using Spring  Persistence Layer using Spring Data | Day 1 | Introduction to Service Layer, Need of Spring Framework, Introduction to Spring Framework, Introduction to Spring IoC Container, Configuring and using Spring IoC Container Java-Annotation based Configuration, Introduction to Autowiring, Using @Autowired annotation. |
| Day 2 | Need for Spring Data, Introduction to Spring Data, Spring Data Repositories, CRUD operations using Spring Data. Spring Data JPA, Introduction to JPQL, Selection – The SELECT clause, Restriction - The WHERE clause, JPQL Aggregate Functions, JPQL String Functions, Grouping and Ordering – The GROUP BY, HAVING and  ORDER BY clause, Update and Delete Queries, MYSQL DB |
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| REST API using Spring | Day 3 | Introduction to Spring Boot, Understanding the structure of a Spring Boot project, SpringBootApplication annotation, Configuring Spring Boot application  Consuming REST API with RestTemplate, CORS - Cross-Origin Resource Sharing, Why to do exception handling?, Exception Handling using @RestControllerAdvice, Exception handling using ResponseStatusException |
| Day 4 | Need for validation, Data Validation using Bean Validation API, Path Variable Validation, Securing REST APIs  Need for Microservices, Introduction to Microservices, Developing Microservices using Spring |
| Spring Microservices | Day-5 | Centralized Configuration, Service Discovery, Load Balancing |
| Need for Microservices, Introduction to Microservices, Developing Microservices using Spring, Docker Introduction, Docker commands , running docker image using spring boot |
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