

Day | Topic | Hands-on Task

Day 1 | OOP Basics | Practice: OOP Basics

Day 2 | Inheritance & Polymorphism | Practice: Inheritance & Polymorphism

Day 3 | Abstraction & Encapsulation | Practice: Abstraction & Encapsulation

Day 4 | Interfaces vs Abstract Classes | Practice: Interfaces vs Abstract Classes

Day 5 | Static, Final, This, Super | Practice: Static, Final, This, Super

Day 6 | OOP Practice Project | Practice: OOP Practice Project

Day 7 | Collections Overview | Practice: Collections Overview

Day 8 | Lists, Sets, Maps | Practice: Lists, Sets, Maps

Day 9 | Collections Methods & Comparators | Practice: Collections Methods & Comparators

Day 10 | Exception Handling Basics | Practice: Exception Handling Basics

Day 11 | Custom Exceptions | Practice: Custom Exceptions

Day 12 | Multithreading Basics | Practice: Multithreading Basics

Day 13 | Thread Synchronization | Practice: Thread Synchronization

Day 14 | Volatile & Locks | Practice: Volatile & Locks

Day 15 | Streams API Basics | Practice: Streams API Basics

Day 16 | Streams Advanced | Practice: Streams Advanced

Day 17 | Optional & Method References | Practice: Optional & Method References

Day 18 | Lambda Expressions | Practice: Lambda Expressions

Day 19 | JDBC Basics | Practice: JDBC Basics

Day 20 | SQL Basics | Practice: SQL Basics

Day 21 | JDBC CRUD Mini Project | Practice: JDBC CRUD Mini Project

Day 22 | Spring Framework Intro | Practice: Spring Framework Intro

Day 23 | Spring Core (IoC, DI) | Practice: Spring Core (IoC, DI)

Day 24 | Spring Boot Architecture | Practice: Spring Boot Architecture

Day 25 | Starter Projects & AutoConfig | Practice: Starter Projects & AutoConfig

Day 26 | App Properties & Profiles | Practice: App Properties & Profiles

Day 27 | First Spring Boot App | Practice: First Spring Boot App

Day 28 | Controllers & Mappings | Practice: Controllers & Mappings

Day 29 | RequestBody & PathVariable | Practice: RequestBody & PathVariable

Day 30 | Exception Handling in REST | Practice: Exception Handling in REST

Day 31 | CRUD App with Service & Repository P | Practice: CRUD App with Service & Repositor

Day 32 | Validation with @Valid | Practice: Validation with @Valid

Day 33 | Spring Data JPA Overview | Practice: Spring Data JPA Overview

Day 34 | JPA Repositories & Queries | Practice: JPA Repositories & Queries
Day 35 | Entity Relationships (OneToMany, ManyToMany) | Practice: Entity Relationships (OneToMany, ManyToMany)
Day 36 | Hibernate Basics | Practice: Hibernate Basics
Day 37 | MySQL/PostgreSQL Integration | Practice: MySQL/PostgreSQL Integration
Day 38 | Full CRUD App (with DB) | Practice: Full CRUD App (with DB)
Day 39 | Actuator & Monitoring | Practice: Actuator & Monitoring
Day 40 | Configuration Management | Practice: Configuration Management
Day 41 | Spring Boot Best Practices | Practice: Spring Boot Best Practices
Day 42 | Error Handling Patterns | Practice: Error Handling Patterns
Day 43 | Spring Security Basics | Practice: Spring Security Basics
Day 44 | Authentication & Authorization | Practice: Authentication & Authorization
Day 45 | Basic Auth & JWT | Practice: Basic Auth & JWT
Day 46 | Role-Based Access Control | Practice: Role-Based Access Control
Day 47 | Secure CRUD App | Practice: Secure CRUD App
Day 48 | Microservices Overview | Practice: Microservices Overview
Day 49 | Eureka Service Discovery | Practice: Eureka Service Discovery
Day 50 | Spring Cloud Gateway | Practice: Spring Cloud Gateway
Day 51 | Feign Client | Practice: Feign Client
Day 52 | Central Config Server | Practice: Central Config Server
Day 53 | Circuit Breaker (Resilience4j) | Practice: Circuit Breaker (Resilience4j)
Day 54 | API Gateway Security | Practice: API Gateway Security
Day 55 | Unit Testing (JUnit, Mockito) | Practice: Unit Testing (JUnit, Mockito)
Day 56 | Testing Service Layer | Practice: Testing Service Layer
Day 57 | Testing Controllers | Practice: Testing Controllers
Day 58 | Docker Basics | Practice: Docker Basics
Day 59 | Dockerize Spring App | Practice: Dockerize Spring App
Day 60 | Intro to Kubernetes | Practice: Intro to Kubernetes
Day 61 | Deploy to Local Kubernetes | Practice: Deploy to Local Kubernetes
Day 62 | Monitoring Microservices | Practice: Monitoring Microservices
Day 63 | Microservices Best Practices | Practice: Microservices Best Practices
Day 64 | Kafka Overview | Practice: Kafka Overview
Day 65 | Producer-Consumer Implementation | Practice: Producer-Consumer Implementation
Day 66 | Messaging with RabbitMQ | Practice: Messaging with RabbitMQ
Day 67 | Caching with Spring Cache | Practice: Caching with Spring Cache
Day 68 | Redis Basics | Practice: Redis Basics

Day 69 | Redis Cache in Spring Boot | Practice: Redis Cache in Spring Boot
Day 70 | Performance Tuning | Practice: Performance Tuning
Day 71 | Spring Boot Logging | Practice: Spring Boot Logging
Day 72 | Layered Architecture | Practice: Layered Architecture
Day 73 | Capstone Kickoff | Practice: Capstone Kickoff
Day 74 | Capstone - Product Service | Practice: Capstone - Product Service
Day 75 | Capstone - User Service | Practice: Capstone - User Service
Day 76 | Capstone - Order Service | Practice: Capstone - Order Service
Day 77 | Capstone - Payment Service | Practice: Capstone - Payment Service
Day 78 | Capstone - Notification Service | Practice: Capstone - Notification Service
Day 79 | Capstone - Security Layer | Practice: Capstone - Security Layer
Day 80 | Capstone - Testing All Services | Practice: Capstone - Testing All Services
Day 81 | Capstone - Docker Compose Setup | Practice: Capstone - Docker Compose Setup
Day 82 | Capstone - Kubernetes Deployment | Practice: Capstone - Kubernetes Deployment
Day 83 | Capstone - Final Review | Practice: Capstone - Final Review
Day 84 | Capstone - Resume Preparation | Practice: Capstone - Resume Preparation
Day 85 | Capstone - Mock Interview & Wrap-upP | ractice: Capstone - Mock Interview & Wrap-u
Day 86 | Buffer/Revision Day | Practice: Buffer/Revision Day
Day 87 | Buffer/Revision Day | Practice: Buffer/Revision Day
Day 88 | Buffer/Revision Day | Practice: Buffer/Revision Day
Day 89 | Final Project Submission | Practice: Final Project Submission
Day 90 | Final Self-Assessment | Practice: Final Self-Assessment