
SYLLABUS FOR BOARD OF STUDIES ADOPTION — generated from the live catalogue record

Enterprise Java with Spring Boot

S-11A · 5 days (configurable 1–5 days) · Informatics · Software Engineering · Years: 3rd, PG

CONTENTS

1. Overview	2
2. Hours and credit position	2
3. Course outcomes	2
4. Course content — modules	2
5. Assessment scheme (100 marks)	3
6. CO–PO mapping	3
7. Every participant receives	3
8. Fee	3
9. Designed by	3

Catalogue S-11A · version 1 · generated 2026-08-24

OVERVIEW

REST services, persistence, security and a deployed enterprise-grade application.

Spring Boot runs a large share of enterprise backends; a student who can ship a secured, persistent Spring Boot service is ready for a major slice of the job market.

HOURS AND CREDIT POSITION

Contact hours: 40 Guided project: 20 Self-study: 0 Notional total: 60

Credit claim: 2

60 notional hours ÷ 30 hours per credit (NSQF track, UGC Micro-credentials Guidelines §5.3.3) = 2 credits.

COURSE OUTCOMES

CO1. Explain Spring's dependency-injection model (K2)

CO2. Build a REST service with request validation (K3)

CO3. Implement persistence with Spring Data JPA (K3)

CO4. Secure an application with authentication and authorisation (K3)

CO5. Deploy a tested, enterprise-grade Spring Boot application (K3)

COURSE CONTENT — MODULES

Hours shown are the recommended format; module time scales proportionally when the engagement runs 1–5 days.

Module 1 — Java for enterprise (5h recommended)

Theory: Build tools, dependency management, project structure

Lab: Scaffold a Spring Boot project

Output: Project skeleton

Module 2 — Spring core (5h recommended)

Theory: Dependency injection, beans, configuration

Lab: Wire beans and configuration

Output: Configured application

Module 3 — REST services (5h recommended)

Theory: Controllers, request handling, validation

Lab: Build validated REST endpoints

Output: REST API

Module 4 — Persistence (5h recommended)

Theory: Spring Data JPA, repositories, relationships

Lab: Persist entities with relationships

Output: Persistence layer

Module 5 — Security (5h recommended)

Theory: Authentication, authorisation, JWT

Lab: Secure the application

Output: Secured endpoints

Module 6 — Testing (5h recommended)

Theory: Unit and integration testing

Lab: Write unit and integration tests

Output: Test suite

Module 7 — Observability and packaging (5h recommended)

Theory: Logging, actuator, building for deployment

Lab: Instrument and package the app

Output: Deployable artefact

Module 8 — Capstone (5h recommended)

Theory: A deployed enterprise-grade application

Lab: Deploy the capstone application

Output: Deployed application

ASSESSMENT SCHEME (100 MARKS)

Continuous lab exercises — 40 marks
Capstone project & demonstration — 40 marks
Quiz & viva voce — 20 marks

CO-PO MAPPING

CO1 !' PO1 (strength 2)
Dependency injection is foundational framework knowledge.
CO2 !' PO3 (strength 2)
Building REST services is solution development.
CO3 !' PO3 (strength 2)
Persistence is solution development.
CO4 !' PO5 (strength 2)
Security frameworks are modern-tool usage.
CO5 !' PO3 (strength 2)
A deployed application is a completed solution.

EVERY PARTICIPANT RECEIVES

- Certificate of completion
- Course material
- LMS access
- Interview question bank
- Mock interview & viva practice
- Optional nasscom NSQF assessment (priced per candidate on your quotation)

FEE

13,200 per student, incl. GST
Excludes the optional nasscom assessment where offered. Final pricing on your college's quotation.

DESIGNED BY

Venkat Kurela — Founder & Director, Kurela Cognisive Private Limited