Course Design Document

Course Code	
Course Name	Spring - Core, AOP, DAO

Duration (in days)	3	Proficiency Level	Fundamental
Pre-requisites	• Java • Hibernate	Target Audience	Campus Hires

Learning Outcome

At the end of the program, participants will learn

- Learn the core principles of Spring, Dependency Injection (DI), and Inversion of Control
- Understand the Spring container and API
- Spring AOP
- Integrate Spring with persistence tiers based on Hibernate

Day wise Session Plan

Day	Unit	Objectives	Hours
1	Spring Introduction	• Why Spring? Overview of Spring Modules. • Introduction to Reactive Programming using Spring. • DI using IOC • BeanFactory Introduction, the Factory Pattern. • XML based configuration • ConstructorInjection and SetterInjection. • BeanFactory vs ApplicationContext	4
2	Spring Core	• Spring Bean Autowiring • Spring Bean Life Cycle • Java based configuration and Annotation based. • SPEL • Creating Maven based project for Spring and adding dependencies.	8
3	Spring AOP	• AOP Introduction (the proxy pattern) • AOP Terminology • Annotation Configuration • XML Configuration	4

4	Spring and Persistence	• The template pattern
		• Spring and JDBC
		  ▪ JdbcTemplate/JdbcDaoSupport
		• Spring and Hibernate
		  ▪ HibernateTemplate/HibernateDaoSupport
		• CRUD methods
			8

		Total	24