

Syllabus:

S.NO

Topics Detailed

Content

1

Introduction to

Spring

What is Spring

How Spring fits into the Enterprise world

Spring Modules

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Spring Core

(Basic

Concepts)

Theory/Practical

- What is a Core Container
- Introduction to IOC
- Types of DI
- Setter VS Constructor
- Resolving Constructor Confusion
- Collection DI
- Bean Inheritance
- Collection Merging
- Inner Beans
- Using IDRef
- Bean Aliasing
- Bean Scopes
- Inner Beans
- Null String
- Bean Auto wiring
- Nested Bean Factories

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Spring Core

(Advanced

Concepts)

Theory/Practica

- P – Namespace
- Dependency Check
- Depends On
- Factory Beans
- Static Factory Method
- Instance Factory Method
- Aware Interfaces
- Bean Lifecycle
- Method Replacement
- Lookup Method Injection
- Property Editors
- Bean Factory Postproces

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Spring Core

(3.0  
Annotations)  
Theory/Practical

- Spring VS Java Config Project annotations
- @Required
- @Autowire
- @PostConstruct
- @PreDestroy
- @Qualifier
- @Resource
- @Component
- @Service
- @Controller
- @Named

Various Annotation based Post Processors  
(AutowiredAnnotationBeanPostProcessor,  
CommonAnnotationBeanPostProcessor,  
PersistenceAnnotationBeanPostProcessor,  
RequiredAnnotationBeanPostProcessor)

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Spring AOP  
Theory/Practical

- AOP Concepts
- Programmatic VS Declarative AOP
- Programmatic AOP
- i. Types of Advices
- ii. Types of Pointcuts
- iii. Working with proxies
- Declarative AOP
- i. Using AOP 2.0 Config element
- ii. OGNL Expressions
- Aspect J AOP

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Spring Tx  
Theory/Practical

- Aop 2.0 Configuration driven Transaction Management
- Aspect J annotation based Transaction Management

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Spring JDBC  
Theory/Practical

- What is DAO pattern?
- Ways to implement Spring DAO
- Choosing an approach for JDBC database access
- JDBC Template
- Executing Statements
- Running Queries
- SQL Parameters

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Spring MVC  
Theory/Practical

- Spring 3.0 features

- Introduction to Spring MVC
- Handler Mapping
- Controllers
- Validations
- Handler Interceptors
- Views
- Form tags

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## Spring ORM

### Spring Integration with ORM

- Integrating with Hibernate
- Creating and Injecting Hibernate Session Factory
- Managing Transaction

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## Q & A

### Question and Answers