**Basics of Spring**

* What is Spring
* Spring Modules
* Spring Application

**Spring with IDE**

* Spring in Eclipse

**IOC container**

**Dependency Injection**

* Constructor Injection
* CI Dependent Object
* CI with collection
* CI with Map
* CI Inheriting Bean
* Setter Injection
* SI Dependent Object
* SI with Collection
* SI with Map
* CI vs SI
* Autowiring
* Factory Method

**Spring JDBC**

* JdbcTemplate Example
* PreparedStatement
* ResultSetExtractor
* RowMapper
* NamedParameter
* SimpleJdbcTemplate

**Spring with ORM**

* Spring with Hibernate
* Spring with JPA

**Spring 3 MVC**

* Working with Spring MVC
* Spring MVC Form Handling
* Creating Views in Spring MVC

**Spring RESTful Web-Services with SpringBoot**

* Controller
* Service
* Repository
* In memory Database e.g. H2
* How to use **Postman** for API testing?
* How to create API Document using **Swagger** **UI**?

**Spring Data module with JPA (Hibernate as an implementation)**

* What is the problem with JDBC - paradigm mismatch?
* What is ORM?
* Understanding different components of Hibernate
* How to persist objects using Hibernate?
* How to use mapping files, configuration files and Session object
* Instance states
* How to generate ID
* How to implement Inheritance in Hibernate?
* Working with relationship between entities
* Transactions in Hibernate
* Querying with HQL (Hibernate Query Language)
* Named and native queries
* Working with Criteria Interface
* Query by example - QBE
* Caching and fetching
* Using Hibernate in different types of applications