Introduction to Spring Framework

- **Introduction to Spring Framework**
  - motivation
  - short history
  - spring modules
- **Spring Container and Dependency Injection**
  - application context and configuration (xml, annotation and Java based)
  - whait is a component
  - dependency injection types
  - best practices
- **Spring Beans and Beans lifecycle**
  - application and bean lifecycle
  - bean scopes and lazy initialization
  - autowiring
- **Spring Boot**
  - why spring boot?
  - simplified dependency management
  - boot starters
  - autoconfiguration
- **Testing Spring Application**
  - importance of testing
  - test driven development
  - unit versus integration tests
  - spring built-in support of testing
- **Data Access with Spring**
  - spring added value,
  - JdbcTemplate
  - JPA
  - spring data Repositories
  - exceptions handling
  - transaction management
- **Spring MVC and Web services**
  - mvc pattern
  - views and controllers
  - rest web services