

WAA Midterm topics

Lesson 1: web development

Servlet

Request parameters

HTTPSession

Front controller

JSP

Spring MVC

Build-in front controller

@Controller

@RequestMapping

@RequestParam

ModelAndView class

Thymeleaf templates

Programming:

You should be able to write a Servlet

You should be able to write a Servlet using HTTPSession

You should be able to write a Spring MVC controller (HTML page using thymeleaf will be given)

No JSP programming

No Java includes

Lesson 2: Spring MVC

Navigation

Forms

Session scope

Form validation

PRG pattern

Programming:

You should be able to write a Spring MVC application using PRG pattern and form validation and scope. (HTML page(s) using thymeleaf will be given)

Lesson 3: REST

Idempotent

RestController

RequestMapping

API design

RestAssured

Programming:

You should be able to write a Spring MVC controller

No RestAssured programming

Lesson 4:

Error handling

 @ControllerAdvice

 @ExceptionHandler

Validation

 Validation constraints

 @ControllerAdvice

Back-end design

 Layering

 DAO/Repository

 Service class

 Dependency injection

 @RestController

 @Service

 @Repository

 @Component

Programming:

You should be able to write a REST application including all classes (Controller, Service, Repository) using Dependency injection and validation(RestTemplate)

Lesson 5 MongoDB

MongoDB

 MongoDB Repository with Spring (MongoRepository)

DTO classes

Rest client

 RestTemplate

Programming:

You should be able to write a REST application including all classes (Controller, Service, Repository) using Dependency injection including DTO classes and a MongoRepository including simple queries

No RestClient (RestTemplate) programming

Lesson 6 Webflux and websockets

Reactive programming

 Flux and mono

 ReactiveCrudRepository

Websockets

 TextWebSocketHandler

 WebSocketConfig

 WebSocket client in javaScript + HTML

Programming:

You should be able to write a TextSocketHandler for websockets

No programming question on webflux

Lesson 7 GraphQL

Problems with REST

How GraphQL solves these problems

Disadvantages GraphQL

Implementing GraphQL: Schema, Mutation class, Query class

GraphQL queries

Programming:

You should be able to write a GraphQL schema, GraphQLMutationResolver and GraphQLQueryResolver