Day 12 Java Date & Time API. I18N, L10N (Internationalisation, Localisation)

Week2 Revisit

Java 8 Features

Functional Interface – An interface with only one abstract method (in-complete)

Interface will have only abstract methods before Java 8.

Java 8 allows the developers to add static and default methods inside interface.

Lambda – Anonymous Function (Nameless function =>)

Method Reference – Static, Instance, Constructor [::] (We will not invoke the method we just refer it 🡪 display() 🡪 Invoking method ::display 🡪 Method reference

Streams 🡪 Is a way of handling group of objects effectively & efficiently (It improves performance) [It enables functional programming]

Intermediate Operations

Terminal Operations

NIO concepts.

Spring Boot – It’s simplified way of creating Spring based Enterprise Projects

Spring is a popular Open source Java based framework used to create loosely coupled enterprise application.

Different ways of Creating Spring boot application

1. Using Spring Initializr (<https://start.spring.io> ) – Create & Download the project as zip file [It’s a web app which can be directly accessed in browser]
2. Using IDE STS/Theia/ Intellij
3. Using Spring CLI (Command Line Interface]

What is Web Service – Service using Internet (Network of Networks)

Client & Server Arch – Request & Response Model

Different Annotations used in Spring Based application.

@SpringBootApplication

@Component – Class level @Bean – Method level

@Controller

@RestController

@RequestMapping & @GetMapping

JPA

@Entity

@Table

@Column

@Id

@GeneratedValue

Lombok

1. Data
2. Getter/Setters
3. NoArgsConstructor
4. AllArgsConstructor
5. RequiredArgsConstructor
6. Slf4j
7. NonNull

Added Must, Should & Could have packages

[model, repo, service & Controller]

{dto, util, config, filter, exception},

Different ways of Testing REST End points

1. Using Swagger (Easy & Simple method – We can test all end-points from a single page)
2. Using Any API Testing Toos like postman, SoapUI, ThunderClient (VS code integration)
3. Using “Curl” – If linux or wsd is available it will smoothly run.

Various Spring Modules

1. Spring Core
2. Spring Data
3. Spring AOP module (Aspect Oriented Programming)
4. Spring Security
5. Spring Cloud
6. Spring Reactive
7. Spring AI
8. Spring Web(MVC)

By default Spring Boot supports 3 different JVM Lang (JAVA, Kotlin & Groovy)

Datasource configuration – DB URL, username & password.

Creating Entity Bean class

Creating REPO layer (Interface only)

Creating Service Layer

Creating Controller Layer

Java Date & Time API & I18N concepts

Java.util.Date –

Get the date of birth from the user as String. (DD-MM-YYYY)

Convert it into SQL Date/ Util Date (YYYY-MM-DD) and print it.

Use Scanner class to get input from user.

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nextLine() – It reads entire line.

Data Flow – 3 types of Streams (In Java Streams represents flow of data)

1. Input Stream (System.in) – Green color font [User to Program]
2. Output Stream (System.out) – black color font [Program to User]
3. Error Stream (System.err) – red color font.[Program to User]