@ Autowired :- Spring auto-wire other beans into your classes using @ autowired annotation.

it is used to autowire Spring bean on setter methods, instance, variable, and constructor when we use @auto-wired annotation, the Spring container auto-wires the bean by matching data-type.

@ RestController :- This annotation is used at the class level and allows the calss to handle requests made by the client

defn :- RestController is a convenience annotation for creating Restful controllers.

@Controller :- Controller annotation indicates that a particular class serves the role of a controller.

@RequestMapping :- is the most common and widely used annotation in Spring MVC. It is used to map web requests onto specific handler classes and methods

@GetMapping :- it maps the HTTP GET requests on the specific handler method.

@PostMapping :- It maps the HTTP Post requests on the specific handler method

@ PutMapping! - It maps the HTTP PUT request
-s on the specific handler
method.

@ DeleteMapping! - It maps the HTTP Delete
requests on the specific
handler method.

@ RequestBody ! - annotation is applicable to
handler methods of Spring controller
-s. this annotation indicates that
Spring should deserialize a request
body into an object.

@ PathVariable! - It is used to extract the
value from the URI.

@ RequestParam :- It is used to extract the query parameters form the URL. It is also known as a query parameter.

@ Entity :- annotation specifies that the class is an entity and is mapped to a database table.

@ Data :- @Data is a convenient annotation that combines the features of

@ toString
@ getter
@ setter.

@ valid :- it allows validate object graphs with a single call validator.

(5)

@Pattern!- used for validation we can provi
-de the required regular expressio
-n to regexpattern. attribute. and
pass it with the annotation

@Service!- It is also used at class. level,
It tells the spring. that class.
contains the business logic.

@SLF4J ;- creates the logger..

@Repository!,- annotation @repository is a
Data Access object that access the
database directly.

@Query!,- @qu @query annotation declar
-es finder queries directly on
repository methods.

@Component :- is an @ annotation that allows Spring to automatically detect our course beans.

JPARepo :- JPA is a specification which specifies how to access, manage and persist information / data between Java objects and relational databases.

DTO :- it is a Data Transfer object Design Pattern. It is basically used to pass data with multiple attributes in one shot from client to server, to avoid multiple calls to a remote server.

@ExceptionHandler:- @ExceptionHandler annotation is an annotation used to handle the specific exceptions and sending the custom responses to the client.

@ControllerAdvice :- @ControllerAdvice annotation is an annotation to handle the exceptions globally

RuntimeException:- it define a class that extends the RuntimeException class.

global exception Handler:- is a type of workflow designed to determine the Project's behavior when encountering an execution error.

@SL4F -

This is the main purpose of SLF4J (Simple Logging Facade for Java) – a logging abstraction which helps to decouple your application from the underlying logger by allowing it to be plugged in – at runtime. Of course, the flexibility that such an abstraction provides is the main reason to use SLF4J.

@SpringBootApplication –

It will scan all it sub packages, controller, services, dto used to mark the mark class of a spring boot application.

It contains @EnableAutoConfiguration, @Configuration, @ComponentScan

- @EnableAutoConfiguration – Auto configures the application context, automatically creates & registers beans based on JAR and class path files.
- @Configuration – It is a class level annotation that tells there are one or more beans to deal with, always used with @ComponentScan.
- @ComponentScan – Find bean inside container.
- @IOC Container – It controls the workflows of the code in the beans or container.
- Inversion of Control is a principle in software engineering which transfers the control of objects or portions of a program to a container or framework.

(9)

@Configuration :- It is a class-level annotation

The class annotated with @Configuration used by Spring containers as a source of bean definitions.

@Bean :- It is a method-level annotation, it is an alternative of XML <bean> tag. it tells the method to produce a bean to be managed by Spring container.

@ComponentScan :- It is used when we want to scan a package for beans. It is used with the annotation @Configuration. we can also specify the base packages to scan for Spring components.

DTO –

It is basically used to pass data with multiple attributes in one shot from client to server, to avoid multiple calls to a remote server.

What is DTO and DAO in spring boot?

DAO is a class that usually has the CRUD operations like save, update, delete. DTO is just an object that holds data. It is JavaBean with instance variables and setter and getters. The DTO is used to expose several values in a bean like fashion.

MVC (Model-View-Controller) - is a pattern in software design commonly used to implement user interfaces, data, and controlling logic. It emphasizes a separation between the software's business logic and display. This "separation of concerns" provides for a better division of labor and improved maintenance.

Aspect Oriented Programming (AOP) - compliments OOPs in the sense that it also provides modularity. But the key unit of modularity is aspect than class.

AOP breaks the program logic into distinct parts (called concerns). It is used to increase modularity by cross-cutting concerns.

33. What is dependency Injection?

The process of injecting dependent bean objects into target bean objects is called dependency injection.

Setter Injection: The IOC container will inject the dependent bean object into the target bean object by calling the setter method.

Constructor Injection: The IOC container will inject the dependent bean object into the target bean object by calling the target bean constructor.

Field Injection: The IOC container will inject the dependent bean object into the target bean object by Reflection API.

Hibernate -

12

Lombok

This is Part 1 of the Spring Boot with Lombok post. In this part I'll discuss the following Lombok constructs:

var and val

@Getter, @Setter

@NoArgsConstructor, @AllArgsConstructor

@Data

@NotNull

Lombok Data annotation (@Data) Generates getters for all fields, a useful to String method, and hash Code and equals implementations that check all non-transient fields. Will also generate setters for all non-final fields, as well as a constructor.

Minimize clutter, boiler plates, like to string, constructor, getter setters.

@Data–

@Data is a convenient shortcut annotation that bundles the features of @ToString, @EqualsAndHashCode, @Getter / @Setter and @RequiredArgsConstructor together: In other words, @Data generates all the boilerplate that is normally associated with simple POJOs (Plain Old Java