Restful web service question:

40:00

What is a RESTful web service?

REST stands for representational states of transfer. It's not a protocol, it's an architecture style used to develop web servers. Restful web servers are designed to use a stateless communication protocol like HTTP. We implemented the http standard method, these methods access various resources that are requested by the client for data communication. Rest use different data formats like JSON, XML for data communication.

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What is a resource for rest?

Resource defined as an object of any type, it can be a text file, image, dynamic data object, always represented in dta format like JSON or XML.

What is the http standard method?

POST(add), GET(get), PUT(update), DELETE(delete)

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What is the difference between SOAP and REST?

SOAP: simple object access protocol.,

REST:representational states of transfer.

SOAP: its protocol

REST: its architecture

Soap: provided its own rules to develop soap base service. and the rule needs to be strictly followed.

Rest: no strictly rure, it just has to implement the http standard method.

Soap: The default implementation for SOAP provided by java is jax ws.

Rest: The default implementation for REST provided by java is jax rs.

Soap: only supports XML for data communication.

Rest: support XML and JSON for communication.

What are the Best practices to develop a restful web service?

What are the guidelines to develop a restful web service?

* Every input on the server should be validate
* Input information should be well formed. If we have data in JSON we should format it easily to understand that.
* Never pass any sensitive information through a URL.
* For any session of request, the user should be authenticated.
* every port should be indicated with a specific http error message or status code.
* Response and Requests should be well formed and easy to understand for the requirement of the client.

What is payload?

Data passes through the request, in the post/put method whatever data we pass as json inside of the body of http request, the data as payload.

What are the safe and unsafe methods?

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Safe method is a method that does not make any change on server, get is safe method.

post, delete, put all 3 methods are unsafe methods.

What is the difference between POST(add) and PUT(update) method?

1)Both are unsafe methods. post is an add resource, put is an update resource.

2)

PUT( also, get, delete) methods are idempotent.(idempotent:set of element unchange)

POST methods are not idempotent.

Idempotent methods mean to modify a singular resource which is already a part of resources collection.

Not idempotent method means every time we are adding a new child resource under resources collection.

trainer note:

Idempotent methods mean make change on server at one time only(we make put on same key will not throw exception, because put will not change the server)

Not idempotent method means everytime it creates the same object again and again into the database.(If we first time add key, its ok, we do it again with same key for post it will throw exception for primary key exists in database.)

PUT methods are used to request the server to store the enclosed entity in request. In case, the request does not exist, then a new resource has to be created. If the resource exists, then the resource should get updated.

POST methods are used to add a new resource to the collection.

POST methods if we do save methods we can do some check if else statements to make sure the id record exists in the server.

Can we use the post method while updating(put) resources?

Yes we can. We can use post for put but the post method is not idempotent. post is not idempotent, it makes changes on the server once only.

List of annotations used for restful service?

@RestController: class level

@GetMapping

@PostMapping

@DeleteMapping

@PutMapping

@RequestMapping

@PathVariable

@RequestParameter

@RequestBody

@ResponseStatus.

What is the difference between requestMapping and getMapping?

both are used to mapping client requests for some http standard method.

RequestMapping we need a specific method type.(@RequestMapping(value = "/ex/foos", method = RequestMethod.GET))

GetMapping we don't need a specific method type.

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What is the difference between @requestParameter and @pathVariable?

Both use the same purpose, both are read parameters from requests. Path variable read variable or parameter from url itself(only one parameter) and map it to formal parameter, Request parameter read parameter from query stream(multiple parameters).

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What are the different response codes?

200=ok

201=created

204=not contained

400=bad request

401=Unauthorized

403=Forbidden(authentication)

404=not found

500=Internal Server Error(if exception occurs during execution of program)

Which tool you were using to test or restful web service?

postman

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What is the flow of restful webservice?

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is restful

controller

repostory

28:00?

34:00why we need to handle exceptions

38:00why we need our own customer exceptions

How did you handle exceptions in the project?

P2 2:20:00

@exceptionHandle P4 1:30:00

how to define a customer sql query method in a repository? or where to use @Param?

using @Query at method level @Param provides the name, type, and description of a functional parameter.

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How will you disable auto configuration in the spring boot project?

If we want to excluding any auto configuration there is two ways:

1. first we can just need to go to application launcher class and inside of @SpringBootApplication(exlcude={”class name”,”class2 name”})
2. application.properties file inside of file define spring.autoConfiguration.exclude=”class name”;

How to configure two different beans for the same spring boot class?

We can use @Bean annotation at configuration file to define two different factory methods for different beans and method name as key and return value as value for our bean in the same spring boot class.

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How actuator works?

What is Actuators?

To monitor performance and help of the application, different aspects, actuators make any application production ready. it provides n numbers of endpoints like info autoconfig, health, bean.

Configuport

AutoConfiguration

Bean

Logger

Info

What is log4J?Why am I learning logging? What is the use of logging?

* Log4J is a logging framework that provides you with various options to define the destination where you want to store the logging information can be database, file, controller.
* We can monitor logs on different levels.

What kind of problem logging can solve which system.out.println cant solve?

* Because using system.out.println you destination will be limited, but using log4j we have many destination location
* Also, log4j provides different levels to catch information.

What are the main components of log4j? no need for interview

loger 21:00

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How do you handle exceptions or errors or debugging for your application?

I can have different approach:

first check inside of the logging file, where is the logging information on error. Sometimes we don’t need to debug.

starting debugging, figure out at what point causes the issue.

Where is the login information put?

Log4J.xml file or any logging configuration file be there

What are the different levels?

trace, debug, info, warn, error. sequence should remain the same.

How are you implementing logging in your project?

How do you write login information inside of your project?

or

On which level do you catch the login information?

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no predfined exception

own customer condition