OPENAPI INITIATIVE

Beginner to Guru

HTTP Request Methods

Request Methods

- Request methods, also known as verbs, are used to indicate the desired action to be performed
- **GET** - is a request for a resource (html file, javascript file, image, etc)
- **GET** - is used when you visit a website.
- **HEAD** - is like GET, but only asks for meta information without the body.

Request Methods

- **POST** - is used to post data to the server.
- Typical use case for POST is to post form data to the server (like a checkout form)
- **PUT** - is a request for the enclosed entity be stored at the supplied URI. If the entity exists, it is expected to be updated.
- **POST** is a create request.
- **PUT** is a create OR update request.

Request Methods

- **DELETE** - Is a request to delete the specified resource
- **TRACE** - Will echo the received request. Can be used to see if request was altered by intermediate servers
- **OPTIONS** - Returns the HTTP methods supported by the server for the specified URL

Request Methods

- **CONNECT** - Converts the request to a transparent TCP/IP tunnel, typically for HTTPS through an unencrypted HTTP proxy
- **PATCH** - Applies partial modifications to the specified resource

Safe Methods

- Safe Methods are considered safe to use because they only fetch information and do not cause changes on the server
- The Safe Methods are: GET, HEAD, OPTIONS, and TRACE

Idempotent Methods

- Idempotence - A quality of an action such that repetitions of the action have no further effect on the outcome
- PUT and DELETE are Idempotent Methods
- Safe Methods (GET, HEAD, TRACE, OPTIONS) are also Idempotent
- Being truly Idempotent is not enforced by the protocol

Non-Idempotent Methods

- POST is NOT Idempotent
- Multiple Posts are likely to create multiple resources
- Ever seen websites asking you to click submit only once?

METHOD	Request Body	Response Body	Safe	Idempotent	Cachable
GET	No	Yes	Yes	Yes	Yes
HEAD	No	No	Yes	Yes	Yes
POST	Yes	Yes	No	No	Yes
PUT	Yes	Yes	No	Yes	No
DELETE	No	Yes	No	Yes	No
CONNECT	Yes	Yes	No	No	No
OPTIONS	Optional	Yes	Yes	Yes	No
TRACE	No	Yes	Yes	Yes	No
PATCH	Yes	Yes	No	No	Yes

HTTP Status Codes

- **100** series are informational in nature
- **200** series indicate successful request
- **300** series are redirections
- **400** series are client errors
- **500** series are server side errors

Common HTTP Status Codes

- **200** Okay; **201** Created; **202** Accepted, **204** No Content
- **301** Moved Permanently
- **400** Bad Request; **401** Not Authorized; **404** Not Found
- **500** Internal Server Error; **503** Service Unavailable

SPRING FRAMEWORK

GURU