**Title : HTTP server development API schema**

Date : 114/01/16

Environment

* Programming Language : Java JDK 17
* Integrated development environment : VS Code
* Framework : Java Spring

Overview

* Title : HTTP/1.1 API server practice
* Version 1.0.0
* Illustration : Utilize the four main methods (GET, POST, PUT, DELETE) provided by the HTTP protocol to develop systems or functions that implement resource operations. This development project aims to design and implement each method according to its characteristics and scope of application. The specific goal is to build an API that accurately handles client requests and returns appropriate responses, enabling efficient and scalable application design that adheres to HTTP method principles.

Server information

* Server url : http://localhost:8080

API path

1. Vehicle

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | | | |
| HTTP method | GET | | |
| path | /getVehicle | | |
| Explanation | Receives a request to query customer information sent by the HTTP client, finds all customer information, and returns a response in JSON format; if there is no match, returns a response with an error message. | | |
| Input parameters | Path Parameter | - | |
| Header | Content-Type | application/json |
| TimeStamp | server time stamp |
| Body | - | |
| Output results | Header | Content-Type | application/json |
| TimeStamp | server time stamp |
| Body | {  "code": int,  "message": "String",  "data": [  {  "id": Long,  "licenseplate": "String",  "mileage": Float,  "owner\_name": "String",  "owner\_phone": "String",  "build\_date": "LocalDateTime",  "modified\_date": " LocalDateTime "  }  ]  } | |

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| --- | --- | --- |
| Definition  Of  Error  Message | 0 | Manipulation Success |
| 30 | Data Not Found |
| 40 | Server Error |

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| --- | --- | --- | --- |
| 2 | | | |
| HTTP method | POST | | |
| path | /newVehicle | | |
| Explanation | Receive data sent by the HTTP client and verify the input content. If the data meets the defined conditions and format, it is stored in the appropriate data structure to ensure data consistency and facilitate subsequent processing. | | |
| Input parameters | Path Parameter | - | |
| Header | Content-Type | application/json |
| TimeStamp | server time stamp |
| Body | {  "licenseplate": "String",  "mileage": Float,  "owner\_name": "String",  "owner\_phone": "String",  "build\_date": " LocalDateTime",  "modified\_date": " LocalDateTime"  } | |
| Output results | Header | Content-Type | application/json |
| TimeStamp | server time stamp |
| Body | {      "code": Integer,      "message": "String",      "data": {  "licenseplate": "String",  "mileage": Float,  "owner\_name": "String",  "owner\_phone": "String",  "build\_date": " LocalDateTime",  "modified\_date": " LocalDateTime"  }  } | |

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| --- | --- | --- |
| Definition  Of  Error  Message | 0 | Manipulation Success |
| 10 | Error in input parameters |
| 20 | Missing necessary parameter |
| 40 | Server Error |

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| 3 | | | |
| HTTP method | PUT | | |
| path | /updateVehicle/{id} | | |
| Explanation | Receives requests sent from an HTTP client and updates data for a specific user or entity. Update requests are sent using the HTTP method PUT, and the request body contains the data to update in JSON format. Operate only if the id is correct. | | |
| Input parameters | Path  Parameter | - | |
| Header | Content-Type | application/json |
| TimeStamp | server time stamp |
| Body | {  "licenseplate": "String",  "mileage": Float,  "owner\_name": "String",  "owner\_phone": "String",  "build\_date": " LocalDateTime",  "modified\_date": " LocalDateTime"  }  } | |
| Output results | Header | Content-Type | application/json |
| TimeStamp | server time stamp |
| Body | {      "code": Integer,      "message": "String",      "data": {  "licenseplate": "String",  "mileage": Float,  "owner\_name": "String",  "owner\_phone": "String",  "build\_date": " LocalDateTime",  "modified\_date": " LocalDateTime"  }  } | |

|  |  |  |
| --- | --- | --- |
| Definition  Of  Error  Message | 0 | Manipulation Success |
| 10 | Error in input parameters |
| 20 | Missing necessary parameter |
| 30 | No data exists for the input ID |
| 40 | Server Error |

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| --- | --- | --- | --- |
| 4 | | | |
| HTTP method | DELETE | | |
| path | /deleteVehicle/{id} | | |
| Explanation | Provides an operation to delete specified data. To perform a deletion, the path must include a specific id number to identify the vehicle being deleted. | | |
| Input  parameters | Path  Parameter | - | |
| Header | Content-Type | application/json |
| TimeStamp | server time stamp |
| Body | - | |
| Output  results | Header | Content-Type | application/json |
| TimeStamp | server time stamp |
| Body | {      "code": Integer,      "message": "String",      "data": null  } | |

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| --- | --- | --- |
| Definition  Of  Error  Message | 0 | Manipulation Success |
| 30 | No data exists for the input ID |
| 40 | Server Error |