Writing Beautiful RESTful APIs

Ethan Ballinger

RESTful API

All About REST – Part 2

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- Operations

- Status Codes

Operations - GET

- Used to retrieve information

- Does not take in a request body (payload)

- Method is considered "safe" as it cannot change the state of the resource

- Typically used to get an individual item or a collection of items

Operations - POST

- Used to have the server accept the enclosed entity and include it as part of the requested resource

- Does take in a request body (typically)

- Method is not considered "safe" as it can change the state of the resource

- Typically used to create a new item under a particular resource

Operations - PUT

- Used to have the server accept the enclosed entity and store it under the resource

- Does take in a request body (typically)

- Method is not considered "safe" as it can change the state of the resource

- Typically is used to replace an existing item under a particular resource

Operations - PATCH

- Used to apply partial updates to a resource

- Does take in a request body (typically)

- Method is not considered "safe" as it can change the state of the resource

- Typically is used to update part of an existing item under a particular resource

Operations - DELETE

- Used to delete a particular resource

- Does not take in a request body

- Method is not considered "safe" as it can change the state of the resource

- Typically is used to delete or remove a particular resource

Operations - OPTIONS

- Used to return the various operations a server supports for the provided URL

- Does not take in a request body

- Method is considered "safe" as it cannot change the state of the resource

- Typically used to by browsers to negotiate with the server to determine what types of operations they support

Status Codes

100 Level: Informational

200 Level: Success
- 200 (OK) - The request was successful
- 201 (Created) - The request was successful and has resulted in a new resource being created
- 204 (No Content) - The request was successful, but the server has not returned any information

300 Level: Redirection
- 304 (Not Modified) - Tells the client, that the value it has for the resource has not changed and still matches what they client has

Status Codes (cont.)

400 Level: Client Failure
- 400 (Bad Request) - The server cannot understand the request due to bad syntax
- 401 (Unauthorized) - The request requires user authentication and it was not provided
- 403 (Forbidden) - The server received the request, but it is not willing to fulfill it
- 404 (Not Found) - The requested resource does not exist or could not be located by the server
- 409 (Conflict) - The request could not be completed due to a conflict with the state of the resource

500 Level: Server Failure
- 500 (Internal Server Error) - The server encountered an unexpected error and could not complete the request