

20CS503 Fundamental of Scalable Computing Project

Title : Recipe Management- API Design

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The main focus of the project is on implementing APIs for Recipe Management Application. The project has the functionality to perform operations such as add, modify and delete the recipes, along with retrieval operations.

We have planned to implement the below five APIs for this project:

- Get all recipes (GET)
- Add recipe (POST)
- Update recipe (PUT)
- Delete recipe (DELETE)
- Delete all recipes(DELETE)
- Get recipe by ID (GET)

API Design:

1. Get all Recipes

Route : '/recipe'

HTTP Request Method: GET

Request: { }

Response:

```
{
  "RecipeID" : _____ ,
  "Recipe"   : _____ ,
  "Dish"     : _____ , ...
}
```

Relevant HTTP Response Code:

Comment: get all recipes

200 : HTTPStatus.OK

404: "message": {"recipes not found !"}, HTTPStatus.NOT_FOUND

404: "message": {"message": 'URL not found !!'}, HTTPStatus.NOT_FOUND

2. Add Recipe

Route : '/recipes'

HTTP Request Method: POST

Request:

```
{
  "Recipe" : _____ ,
  "Dish"   : _____
}
```

Response: { }

Relevant HTTP Response Code:

404:{"message":{"message": 'URL not found !!'}, HTTPStatus.NOT_FOUND

405:{"message": 'Method Not Allowed !!'}, HTTPStatus.METHOD_NOT_ALLOWED

Comment: Through Error : data is not in JSON format(Text,HTML,XML)

400:{"message": "No input data provided"}

Comment: Through Error: check for valid data type,empty string

422:"Recipe": ["Can't be Empty!"] #empty string check

422:"Dish":["Can't be Empty!"]

422:"Recipe": ["Not a valid string."]

422:"Dish":["Not a valid string."]

Comment:Through Error : empty string with more space given as a input

422:{ "message": "Error: Recipe cannot be empty, Error: Dish cannot be empty"}

422:{ "message": "Error: Dish cannot be empty"}

422:{ "message": "Error: Recipe cannot be empty"}

201: HTTPStatus.CREATED

3. Update Recipe

Route : '/recipes/id'

HTTP Request Method: PUT

Request:

```
{  
  "RecipeID" : _____ ,  
  "Recipe"   : _____  
}
```

Response: {"Recipe": recipes}

Relevant HTTP Response Code:

404: {"message": {"message": 'URL not found !!'}}, HTTPStatus.NOT_FOUND

405: {'message': 'BAD REQUEST !! Syntax,Invalid Request Message Framing,Or Deceptive Request Routing'}),HTTPStatus.BAD_REQUEST

Comment: Through Error : data is not in JSON format(Text,HTML,XML)

400: {"message": "No input data provided"}

Comment: Through Error: check for valid DataType,empty String,empty String with extra tabs

422: {"message": "Error: Recipe cannot be empty, Error: Dish cannot be empty"}

422: {"message": "Error: Dish cannot be empty"}

422: {"message": "Error: Recipe cannot be empty"}

422: {"message": "Invalid data type: Recipe needs to be String" }

422: {"message": "Invalid data type: Dish needs to be String"}

422: {"message": "Invalid data type: Recipe needs to be String,Invalid data type: Dish needs to be String"}

Comment: Through Error: check for Invalid ID

404: {"message": "Recipe Id doesn't exist, can't update!"}

Comment: data is updated

200: HTTPStatus.OK

4. Delete Recipe By ID

Route : '/recipes/id'

HTTP Request Method: DELETE

Request:

```
{  
  "RecipeID" : _____ }  
}
```

Response: { 'message': 'Recipe Deleted!' } OR { 'message': 'recipe not found' }

Relevant HTTP Response Code:

Comment: Through Error: check for Invalid ID

404: { 'message': 'recipe not found' } , HTTPStatus.NOT_FOUND

Comment: delete recipe

200: { 'message': 'Recipe Deleted!' }

5. Get Recipe by ID

Route : '/recipes/id'

HTTP Request Method: GET

Request:

```
{
  "recipeID" : _____
}
```

Response:

```
{
  "RecipeID" : _____ ,
  "Recipe"   : _____ ,
  "Dish"     : _____
}
```

Relevant HTTP Response Code:

Comment: get all recipes

200 : HTTPStatus.OK

404: "message": {"message": "recipes not found !"}, HTTPStatus.NOT_FOUND

404: "message": {"message": "URL not found !!"}, HTTPStatus.NOT_FOUND

6. Delete All Recipes

Route : '/recipes'

HTTP Request Method: DELETE

Request:

```
{
  "RecipeID" : _____
}
```

Response: {'message': 'ALL The Recipes Are Deleted!'}

Relevant HTTP Response Code:

404: "message": {"message": "URL not found !!"}, HTTPStatus.NOT_FOUND

Comment: delete all the recipes

200: {'message': 'ALL The Recipes Are Deleted!'}, HTTPStatus.OK