1. Add a new formula.

POST /formulas
Adds a new formula to the collection of formulas.
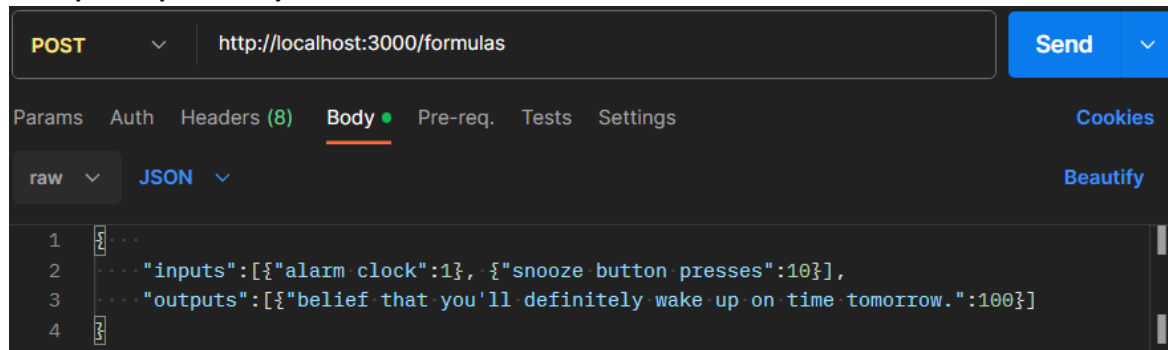**Request**
  Method: POST
  Path: /formulas
  Body:
    inputs: An array of input objects, each containing the ingredient and its quantity.
    outputs: An array of output objects, each containing the product and its quantity.
Example Request Body:

```
POST          ∨          http://localhost:3000/formulas                          Send  ∨

Params   Auth   Headers (8)   Body ●   Pre-req.   Tests   Settings                Cookies

raw  ∨      JSON  ∨                                                               Beautify

1   {
2       "inputs":[{"alarm clock":1}, {"snooze button presses":10}],
3       "outputs":[{"belief that you'll definitely wake up on time tomorrow.":100}]
4   }
```

Responses
- **201 Created**: The formula has been successfully created.
- **400 Bad Request**: Invalid request body format.

2. See the inputs and outputs of a specific formula.

GET /formulas/:id
Retrieves the details of a specific formula, including its inputs and outputs in a sentence format.
Request
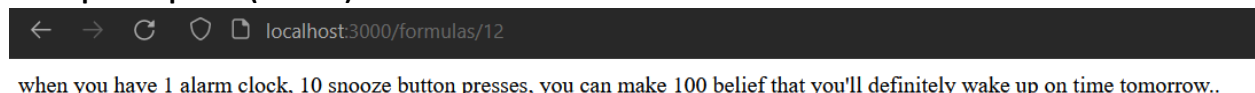 **Method**: GET
  Path: /formulas/:id
  Path Parameter:
    id: A non-negative integer representing the formula's unique identifier.
Responses
- **200 OK**: The formula details have been successfully retrieved. The response body contains a sentence describing the formula's inputs and outputs.
- **404 Not Found**: The specified formula does not exist.
- **400 Bad Request**: Invalid formula id.

Example Response (200 OK):

```
←  →  C  ○  🗋  localhost:3000/formulas/12
```

when you have 1 alarm clock, 10 snooze button presses, you can make 100 belief that you'll definitely wake up on time tomorrow..

3. List which plans contain a specific formula.

GET /formulas/:id/plans
List which plans contain a specific formula.
Request

Method: GET

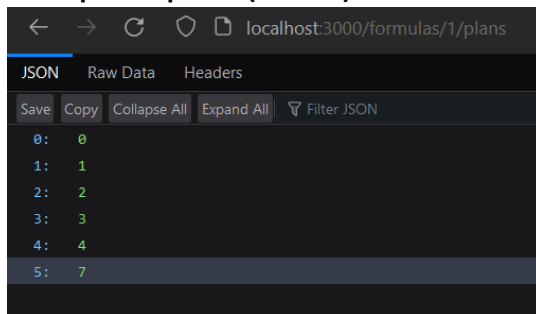**Path**: /formulas/:id/plans

Path Parameter:

   id: A non-negative integer representing the formula's unique identifier.

Responses

- **200 OK**: The plan details have been successfully retrieved. The response body contains a Json output of the plans that contains that formula
- **404 Not Found**: The specified formula does not exist.
- **400 Bad Request**: Invalid formula id.

Example Response (200 OK):
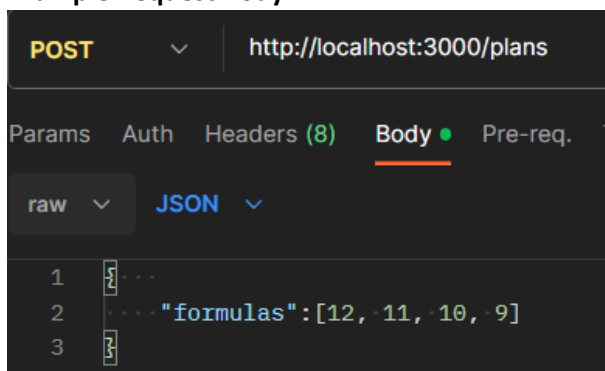

4. Add a new Plan.

POST /plans

Adds a new Plan

Request

   Method: POST

   Path: /plans

   Body:

   inputs: An array of input objects, each containing the list of formulas.

Example Request Body:

Responses

- **201 Created**: The plan has been successfully created.
- **400 Bad Request**: Invalid request body format.

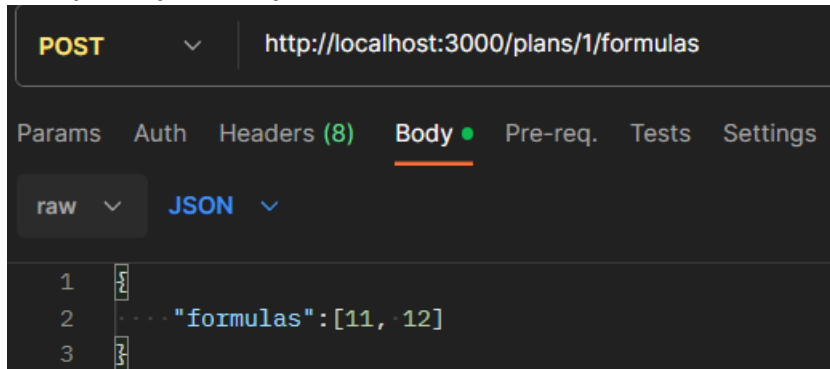# 5. Append a formula to the end of a plan.

POST /plans/:id/formulas

Append a formula to the end of a plan.**Request**

   Method: POST

   Path: /plans/:id/formulas

Body:
    inputs: An array of input objects, each containing the Formulas.
Example Request Body:


```
POST  v    http://localhost:3000/plans/1/formulas

Params  Auth  Headers (8)  Body •  Pre-req.  Tests  Settings

raw  v    JSON  v

1  {
2  ····"formulas":[11, 12]
3  }
```

Responses

- **201 Created**: The formula has been successfully created.
- **400 Bad Request**: Invalid request body format.
- **404 Not Found**: The specified formula does not exist.

6. Replace formula in a plan with another.

PUT / plans/:id/replace
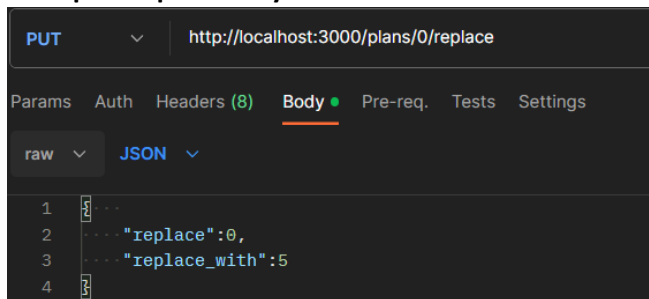Replace formula in a plan with another.
Request
    Method: PUT
    Path: /plans/:id/replace
    Body:
        replace: An input object, containing a Formula.
        Replace_with: An input object, containing a Formula.
Example Request Body:


```
PUT  v    http://localhost:3000/plans/0/replace

Params  Auth  Headers (8)  Body •  Pre-req.  Tests  Settings

raw  v    JSON  v

1  {···
2  ····"replace":0,
3  ····"replace_with":5
4  }
```

Responses

- **200 Created**: The formula has been successfully created.
- **400 Bad Request**: Invalid request body format.
- **404 Not Found**: The specified formula does not exist.

7. list all formulas in a plan.

GET /plans/:id/formulas
list all formulas in a plan.
Request
    Method: GET
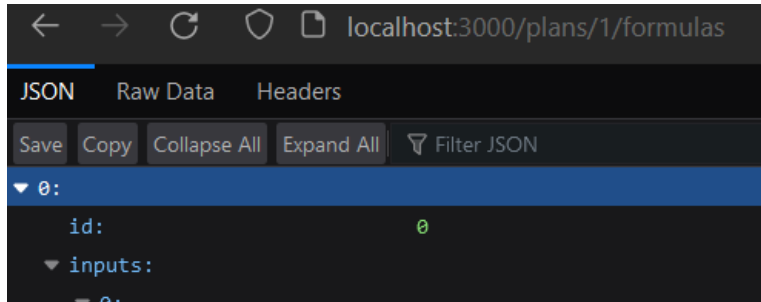   **Path**: /plans/:id/formulas
    Path Parameter:
        id: A non-negative integer representing the formula's unique identifier.

Responses

- **200 OK**: The plan details have been successfully retrieved. The response body contains a Json output of the plans that contains that formula
- **404 Not Found**: The specified formula does not exist.
- **400 Bad Request**: Invalid formula id.

Example Response (200 OK):

8.   Delete a spefic plan with id

DELETE /plans/:id

Delete a specific plan with id.

Request

  Method: DELETE

  Path: /plans/:id

  Path Parameter:

    id: A non-negative integer representing the formula's unique identifier.

Responses

- **200 OK**: The plan details have been successfully deleted.
- **404 Not Found**: The specified formula does not exist.
- **400 Bad Request**: Invalid plan id.

Example Response (200 OK):