

Diet Tracker API Documentation

This document provides information about the RESTful API endpoints available in the Diet Tracker application.

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Authentication

Register a new user

- **URL:** /api/auth/register
- **Method:** POST
- **Request Body:** User object

```
{
  "username": "string",
  "password": "string",
  "email": "string"
}
```
- **Response:** JWT token as string
- **Description:** Registers a new user and returns a JWT token for authentication.

Login

- **URL:** /api/auth/login
- **Method:** POST
- **Request Body:** User credentials

```
{
  "username": "string",
  "password": "string"
}
```
- **Response:** JWT token as string
- **Description:** Authenticates a user and returns a JWT token.

Users

Get all users

- **URL:** /api/users
- **Method:** GET
- **Response:** List of User objects
- **Description:** Retrieves all users in the system.

Get user by ID

- **URL:** /api/users/{id}
- **Method:** GET
- **URL Parameters:** id=[Long] - User ID
- **Response:** User object
- **Description:** Retrieves a specific user by their ID.

Get user by username

- **URL:** /api/users/username/{username}
- **Method:** GET
- **URL Parameters:** username=[String] - Username
- **Response:** User object
- **Description:** Retrieves a specific user by their username.

Get user by email

- **URL:** /api/users/email/{email}
- **Method:** GET
- **URL Parameters:** email=[String] - Email address
- **Response:** User object
- **Description:** Retrieves a specific user by their email address.

Create user

- **URL:** /api/users
- **Method:** POST
- **Request Body:** User object

```
{
  "username": "string",
  "password": "string",
  "email": "string"
}
```
- **Response:** Created User object
- **Description:** Creates a new user.

Update user

- **URL:** /api/users/{id}
- **Method:** PUT
- **URL Parameters:** id=[Long] - User ID
- **Request Body:** Updated User object

```
{  
  "username": "string",  
  "password": "string",  
  "email": "string"  
}
```

- **Response:** Updated User object
- **Description:** Updates an existing user.

Delete user

- **URL:** /api/users/{id}
- **Method:** DELETE
- **URL Parameters:** id=[Long] - User ID
- **Response:** No content (HTTP 204)
- **Description:** Deletes a user by their ID.

Foods

Get all foods

- **URL:** /api/foods/all
- **Method:** GET
- **Response:** List of Food objects
- **Description:** Retrieves all foods in the system.

Get food by ID

- **URL:** /api/foods/{id}
- **Method:** GET
- **URL Parameters:** id=[Long] - Food ID
- **Response:** Food object
- **Description:** Retrieves a specific food by its ID.

Get foods by name

- **URL:** /api/foods/name/{name}
- **Method:** GET
- **URL Parameters:** name=[String] - Food name
- **Response:** List of Food objects

- **Description:** Retrieves all foods matching the specified name.

Create food

- **URL:** /api/foods
- **Method:** POST
- **Request Body:** Food object

```
{
  "food": "string",
  "caloricValue": number,
  "protein": number,
  "carbohydrates": number,
  "fat": number
}
```

- **Response:** Created Food object
- **Description:** Creates a new food item.

Update food

- **URL:** /api/foods/{id}
- **Method:** PUT
- **URL Parameters:** id=[Long] - Food ID
- **Request Body:** Updated Food object

```
{
  "food": "string",
  "caloricValue": number,
  "protein": number,
  "carbohydrates": number,
  "fat": number
}
```

- **Response:** Updated Food object
- **Description:** Updates an existing food item.

Delete food

- **URL:** /api/foods/{id}
- **Method:** DELETE
- **URL Parameters:** id=[Long] - Food ID
- **Response:** No content
- **Description:** Deletes a food item by its ID.

Goals

Get all goals

- **URL:** /api/goals
- **Method:** GET
- **Response:** List of SetGoal objects
- **Description:** Retrieves all diet goals in the system.

Get goal by ID

- **URL:** /api/goals/{id}
- **Method:** GET
- **URL Parameters:** id=[Integer] - Goal ID
- **Response:** SetGoal object
- **Description:** Retrieves a specific goal by its ID.

Get goals by user ID

- **URL:** /api/goals/user/{userId}
- **Method:** GET
- **URL Parameters:** userId=[Integer] - User ID
- **Response:** List of SetGoal objects
- **Description:** Retrieves all goals for a specific user.

Create goal

- **URL:** /api/goals
- **Method:** POST
- **Request Body:** SetGoal object

```
{
  "userID": number,
  "goalType": "string",
  "targetCalories": number,
  "targetProtein": number,
  "targetCarbohydrates": number,
  "targetFat": number
}
```
- **Response:** Created SetGoal object
- **Description:** Creates a new diet goal.

Update goal

- **URL:** /api/goals/{id}
- **Method:** PUT

- **URL Parameters:** id=[Integer] - Goal ID
- **Request Body:** Updated SetGoal object

```
{
  "userID": number,
  "goalType": "string",
  "targetCalories": number,
  "targetProtein": number,
  "targetCarbohydrates": number,
  "targetFat": number
}
```

- **Response:** Updated SetGoal object
- **Description:** Updates an existing diet goal.

Delete goal

- **URL:** /api/goals/{id}
- **Method:** DELETE
- **URL Parameters:** id=[Integer] - Goal ID
- **Response:** No content (HTTP 204)
- **Description:** Deletes a diet goal by its ID.

Meal Plans

Get meal plan recommendation (GET method)

- **URL:** /api/recommend or /api/meal/recommend
- **Method:** GET
- **Query Parameters:**
 - weight=[double] - User weight in kg
 - height=[double] - User height in cm
 - age=[int] - User age
 - type=[string] - Diet type (options: “loss”, “gain”, “muscle”; defaults to “loss”)

- **Response:** Meal plan object

```
{
  "breakfast": ["string", "string", ...],
  "lunch": ["string", "string", ...],
  "dinner": ["string", "string", ...]
}
```

- **Description:** Generates a meal plan recommendation based on user parameters.

Get meal plan recommendation (POST method)

- **URL:** /api/recommend or /api/meal/recommend
- **Method:** POST
- **Request Body:**

```
{
  "weight": number,
  "height": number,
  "age": number,
  "type": "string" // options: "loss", "gain", "muscle"; defaults to "loss"
}
```
- **Response:** Meal plan object

```
{
  "breakfast": ["string", "string", ...],
  "lunch": ["string", "string", ...],
  "dinner": ["string", "string", ...]
}
```
- **Description:** Generates a meal plan recommendation based on user parameters.

Test API

- **URL:** /api/recommend/test
- **Method:** GET
- **Response:** String message
- **Description:** Tests if the meal plan API is running correctly.