# User Documentation for DietFit Application

## 1. Overview

DietFit is a FastAPI-based server application that allows users to:

- Sign up and log in securely.

- Calculate their BMI (Body Mass Index) and daily calorie intake.

- Generate a 7-day \*\*diet plan\*\* with meal recommendations.

- Retrieve a 7-day \*\*exercise plan\*\* based on difficulty, type, and muscle group.

The application uses MongoDB as its backend database and integrates with the \*\*Edamam API\*\* to fetch diet-related data.

## 2. Installation and Setup

### Prerequisites

- Python 3.8 or above.

- MongoDB installed and running.

- Edamam API credentials (app ID and app key).

- A virtual environment (optional but recommended).

### Steps to Install

1. \*\*Download or Clone the Repository\*\*

git clone https://github.com/your-repo/DietFit-main.git

cd DietFit-main

2. \*\*Create and Activate Virtual Environment\*\*

- For Windows:

python -m venv venv

.\venv\Scripts\activate

- For Linux/Mac:

python3 -m venv venv

source venv/bin/activate

3. \*\*Install Dependencies\*\*

pip install -r requirements.txt

4. \*\*Set Up MongoDB\*\*

- Ensure MongoDB is running locally or on a remote server.

- Update the MongoDB connection string in the `key\_data.py` file:

MONGO\_URI = "your-mongo-connection-string"

DB\_NAME = "dietfit"

5. \*\*Configure Edamam API Keys\*\*

- Add your API keys in the `key\_data.py` file:

post\_app\_id = "your-edamam-app-id"

post\_app\_key = "your-edamam-app-key"

## 3. How to Run the Application

1. Activate the virtual environment (if not activated):

.\venv\Scripts\activate

2. Start the application:

python app.py

3. The server will start on:

https://0.0.0.0:7000

- To open the documentation, go to:

http://127.0.0.1:7000/docs

4. Example Logs:

INFO: Started server process [27172]

INFO: Uvicorn running on https://0.0.0.0:7000

## 4. Features and Endpoints

### User Management

|  |  |  |  |
| --- | --- | --- | --- |
| Endpoint | Method | Description | Request Body |
| ----------------- | -------- | ------------------------ | ---------------------------------------- |
| `/signupCheck` | POST | User signup | `{ "firstName", "lastName", "email", "password" }` |
| `/loginCheck` | POST | User login | `{ "email", "password" }` |
| `/getFirstname` | POST | Get user’s first name | `{ "email" }` |
| Endpoint | Method | Description | Request Body |
| ---------------------- | -------- | ----------------------------- | ------------------------------------------------ |
| `/calculate\_bmi` | POST | Calculate BMI | `{ "gender", "age", "height", "weight" }` |
| `/calculate\_calories` | POST | Calculate calorie intake | `{ "gender", "age", "height", "weight", "activity\_level" }` |
| Endpoint | Method | Description | Request Body |
| ----------------- | -------- | ------------------------ | ---------------------------------------- |
| `/viewDiet` | POST | Generate 7-day diet plan | JSON filter for diet preferences |
| `/getExercises` | POST | Generate 7-day exercises | `{ "difficulty", "type", "muscle" }` |
| Page | URL |  |  |
| ------------------ | ---------------------- |  |  |
| Login | `/login` |  |  |
| Signup | `/signup` |  |  |
| BMI Calculator | `/bmi` |  |  |
| Calorie Tracker | `/calorie` |  |  |
| Diet Plan | `/dietplan` |  |  |
| Exercise Plan | `/exerciseplan` |  |  |
| About Us | `/about` |  |  |

## 5. Example Usage

\*\*Signup Example\*\*:

- Request:

POST /signupCheck

{

"firstName": "John",

"lastName": "Doe",

"email": "john@example.com",

"password": "securepassword"

}

- Response:

{

"success": true,

"message": "User signup is successful"

}

\*\*Calculate BMI\*\*:

- Request:

POST /calculate\_bmi

{

"gender": "male",

"age": 25,

"height": 180,

"weight": 75

}

- Response:

{

"bmi": 23.15,

"success": true

}

## 6. Troubleshooting

|  |  |
| --- | --- |
| Problem | Solution |
| ---------------------------------- | ------------------------------------------- |
| \*\*MongoDB Connection Error\*\* | Verify MongoDB URI and server status. |
| \*\*Port Already in Use\*\* | Stop any other process using port 7000. |
| \*\*SSL Certificate Error\*\* | Verify `cert.pem` and `key.pem` files. |
| \*\*API Key Issues\*\* | Ensure valid Edamam API keys in `key\_data.py`. |