

Simple Flask CRUD API

This project is a simple CRUD (Create, Read, Update, Delete) API built with Flask. It demonstrates basic operations to manage items in an in-memory list, serving as a foundation for more complex applications.

Prerequisites

Before you begin, ensure you have met the following requirements:

- Python 3.6 or higher installed on your machine
- Flask installed in your Python environment

If Flask is not installed, you can install it using pip:

```
pip install Flask
```

Running the Application

To run this application, follow these steps:

1. Clone the repository to your local machine or download the `app.py` file.
2. Open a terminal and navigate to the directory containing `app.py`.
3. Run the command `python app.py` to start the Flask server.
4. The API will be available at `http://127.0.0.1:5000/`.

API Endpoints

The API supports the following operations:

- **POST** `/items` - Create a new item
- **GET** `/items` - Retrieve all items
- **GET** `/items/<item_id>` - Retrieve a single item by its ID
- **PUT** `/items/<item_id>` - Update an existing item by its ID
- **DELETE** `/items/<item_id>` - Delete an item by its ID

Examples

Creating an Item

To create a new item, send a POST request to `/items` with a JSON body:

```
curl -X POST http://127.0.0.1:5000/items -H "Content-Type: application/json" -d '{"name": "Item 1", "description": "This is an item."}'
```

Retrieving All Items

To retrieve all items, send a GET request to `/items`:

```
curl http://127.0.0.1:5000/items
```

Retrieving a Single Item

To retrieve a single item by its ID, send a GET request to `/items/<item_id>`:

```
curl http://127.0.0.1:5000/items/0
```

Updating an Item

To update an existing item by its ID, send a PUT request to `/items/<item_id>` with a JSON body:

```
curl -X PUT http://127.0.0.1:5000/items/0 -H "Content-Type: application/json" -d '{"name": "Updated Item", "description": "Updated description."}'
```

Deleting an Item

To delete an item by its ID, send a DELETE request to `/items/<item_id>`:

```
curl -X DELETE http://127.0.0.1:5000/items/0
```

Contributing

Contributions to this project are welcome. Please fork the repository and submit a pull request with your improvements.

License

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