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# 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.\"}"
```

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#### 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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