

# TodoAPI

It is a basic To-do list API created in python using FastAPI

## Features included :

- It is a REST API
- IT supports user authentication using JWT (JSON Web Tokens), only registered user will be able to create or update tasks
- It use FastAPI as its framework
- It uses Mongo db for storing data
- It has implementations of all the CRUD functionalities

## API Endpoints :

1. /register : You can register new user.



Figure 1: Pasted image 20230211194427

2. /login : login as a user and generate a authentication token.

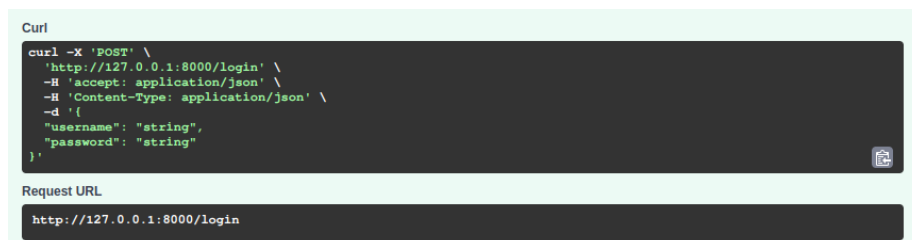


Figure 2: Pasted image 20230211194858

3. /all : Get all the todo tasks
4. /get/{name} : Get the specific task using name
5. /create : create the task and append it in todo list
7. /update : update the specific task
8. /delete : delete a task

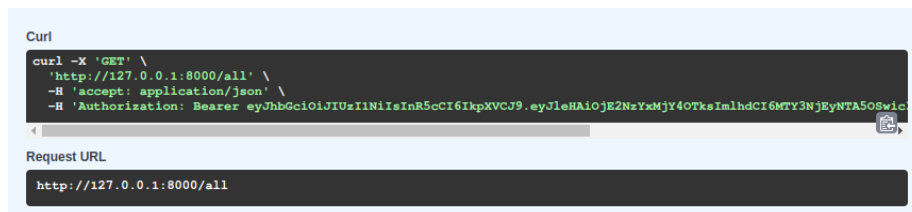


Figure 3: Pasted image 20230211195044

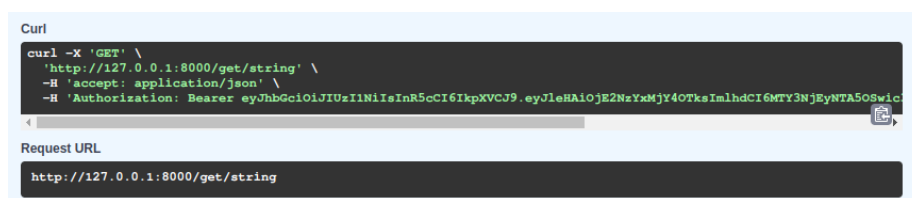


Figure 4: Pasted image 20230211195438

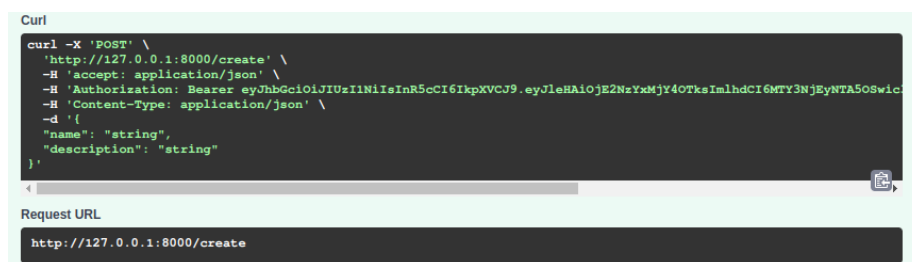


Figure 5: Pasted image 20230211195356

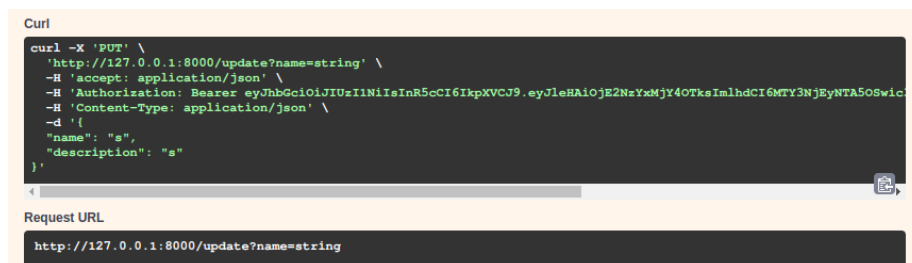


Figure 6: Pasted image 20230211195534

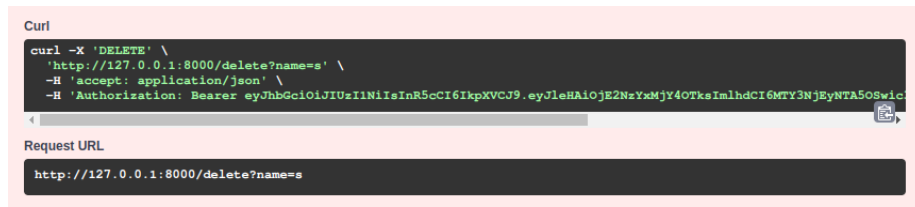


Figure 7: Pasted image 20230211195612

### How To Run:

#### Windows :

1. Install all python dependencies using : `pip install -r requirements.txt`
2. Install mongodb and configure.
3. run API using : `uvicorn app.app:app --reload`


#### Linux and Mac :


1. Install all python dependencies using : `pip3 install -r requirements.txt`
2. Install mongodb and configure.
3. run : `./run.sh`














## Working Screenshots

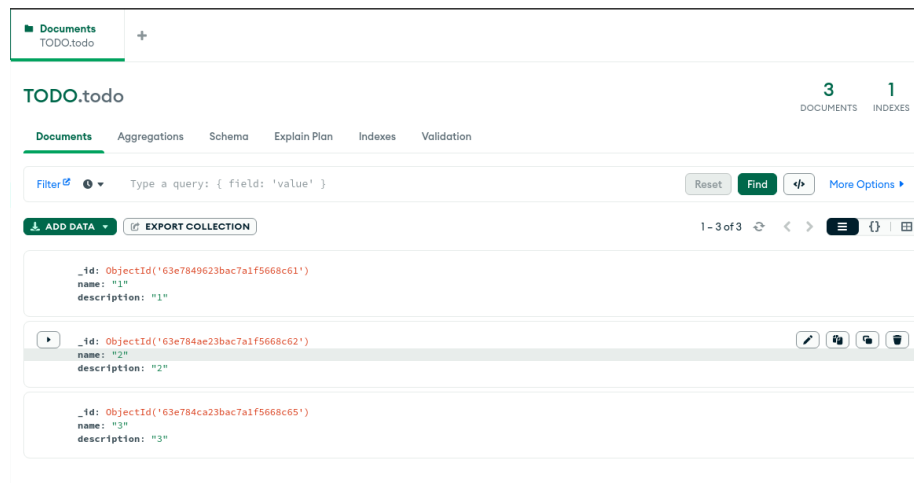
```
INFO: Will watch for changes in these directories: ['/home/lucifer/Desktop/TOD0']
INFO: Uvicorn running on http://127.0.0.1:8000 (Press CTRL+C to quit)
INFO: Started reloader process [28464] using StatReload
INFO: Started server process [28466]
INFO: Waiting for application startup.
INFO: Application startup complete.
INFO: 127.0.0.1:42774 - "GET / HTTP/1.1" 200 OK
INFO: 127.0.0.1:42774 - "GET /docs HTTP/1.1" 200 OK
INFO: 127.0.0.1:42774 - "GET /openapi.json HTTP/1.1" 200 OK
INFO: 127.0.0.1:42774 - "POST /register HTTP/1.1" 201 Created
INFO: 127.0.0.1:59734 - "POST /login HTTP/1.1" 200 OK
INFO: 127.0.0.1:46742 - "GET /all HTTP/1.1" 403 Forbidden
INFO: 127.0.0.1:56274 - "GET /all HTTP/1.1" 200 OK
INFO: 127.0.0.1:58874 - "POST /create HTTP/1.1" 200 OK
INFO: 127.0.0.1:50316 - "GET /get/string HTTP/1.1" 200 OK
INFO: 127.0.0.1:41102 - "PUT /update?name=string HTTP/1.1" 200 OK
INFO: 127.0.0.1:58724 - "DELETE /delete?name=s HTTP/1.1" 200 OK
```

**FastAPI** 0.1.0 OAS3  
[/openapi.json](#)

[Authorize](#) 

**default** 

GET	/ Home	
POST	/register Register	
POST	/login Login	
GET	/all Getall	 
POST	/create Create	 
GET	/get/{name} Gettask	 
DELETE	/delete Delete	 
PUT	/update Update	 



### Improvements that can be implemented :

1. More user operations and a better user management system.
2. Persist users across sessions by implementing separate user database.
3. Separate Todo database for all users.

### References

1. <https://fastapi.tiangolo.com/>
2. <https://www.mongodb.com/docs/>
3. <https://jwt.io/introduction>