

Итоговое задание

TODO-сервис

Создание образа, загрузка на Docker Hub и запуск контейнера:

```
/home/mobaxterm/final_project/todo_app
2025-01-05 14:43.18 docker build -t aaauuuu/todo-service:latest .

[+] Building 3.1s (11/11) FINISHED                                docker:desktop-linux
=> [internal] load build definition from Dockerfile                0.0s
=> => transferring dockerfile: 337B                                0.0s
=> [internal] load metadata for docker.io/library/python:3.9-slim 1.9s
=> [auth] library/python:pull token for registry-1.docker.io      0.0s
=> [internal] load .dockerignore                                  0.0s
=> => transferring context: 2B                                      0.0s
=> [1/5] FROM docker.io/library/python:3.9-slim@sha256:caaf1af9e23adc614 0.0s
=> => resolve docker.io/library/python:3.9-slim@sha256:caaf1af9e23adc614 0.0s
=> [internal] load build context                                  0.0s
=> => transferring context: 154B                                    0.0s
=> CACHED [2/5] WORKDIR /app                                       0.0s
=> CACHED [3/5] COPY requirements.txt .                            0.0s
=> CACHED [4/5] RUN pip install --no-cache-dir -r requirements.txt 0.0s
=> CACHED [5/5] COPY . .                                          0.0s
=> exporting to image                                             0.9s
=> => exporting layers                                             0.0s
=> => exporting manifest sha256:4a137db27495375ee3fc8e82fe2f19d0b19abe13 0.0s
=> => exporting config sha256:569e9831b34c297f36dc25202a0e1ea51cbc56c397 0.0s
=> => exporting attestation manifest sha256:cf55df30a03e09010bb79093cbd4 0.0s
=> => exporting manifest list sha256:711f131999e43958d7fcd3fb2b26990d40b 0.0s
=> => naming to docker.io/aaauuuu/todo-service:latest            0.0s
=> => unpacking to docker.io/aaauuuu/todo-service:latest        0.8s

/home/mobaxterm/final_project/todo_app
2025-01-05 14:44.12 docker push aaauuuu/todo-service:latest
The push refers to repository [docker.io/aaauuuu/todo-service]
16c49ccbe2da: Pushed
75a2bc32319e: Pushed
11bf94da8b1c: Pushed
9feece89654b: Pushed
d381bf0bfd6e: Pushed
15ae4a6da7c5: Pushed
b6fbd1f29b29: Pushed
fd674058ff8f: Pushed
96df0e5e8179: Pushed
latest: digest: sha256:711f131999e43958d7fcd3fb2b26990d40ba4150ada941c237d271664
260f23a size: 856

/home/mobaxterm/final_project/todo_app
2025-01-05 14:46.09 docker run -d -p 8000:80 -v todo_data:/app/data a
aaauuuu/todo-service:latest
1b62a4da06380bb2f245822ba5c66425358c75fc50c8d8d1056b9c7c44a223df
```

Интерфейс приложения TODO-сервиса:

localhost:8000/docs

FastAPI

0.1.0

OAS 3.1

/openapi.json

default

GET

/items

Get Items

POST

/items

Create Item

GET

/items/{item_id}

Get Item

PUT

/items/{item_id}

Update Item

DELETE

/items/{item_id}

Delete Item

Schemas

HTTPValidationError

>

Expand all

object

TodoCreate

>

Expand all

object

TodoItem

>

Expand all

object

ValidationError

>

Expand all

object

Создание задач:

POST

/items

Create Item

Parameters

No parameters

Request body required

application/json

{
 "title": "Watch TV",
 "description": "Watch sports on TV",
 "completed": false
}

Execute

Responses

Curl

```
curl -X 'POST' \
'http://localhost:8000/items' \
-H 'accept: application/json' \
-H 'Content-Type: application/json' \
-d '{
  "title": "Watch TV",
  "description": "Watch sports on TV",
  "completed": false
}'
```



Request URL

http://localhost:8000/items

Server response

CodeDetails

200

Response body

```
{
  "id": 1,
  "title": "Watch TV",
  "description": "Watch sports on TV",
  "completed": false
}
```



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Response headers

```
content-length: 80
content-type: application/json
date: Sun,05 Jan 2025 12:05:27 GMT
server: uvicorn
```

POST /items Create Item



Parameters

Cancel

Reset

No parameters

Request body required

application/json



```
{
  "title": "Clean the house",
  "description": "Clean the dust and vacuum the carpets",
  "completed": false
}
```

Execute

Clear

Responses

Curl

```
curl -X 'POST' \
'http://localhost:8000/items' \
-H 'accept: application/json' \
-H 'Content-Type: application/json' \
-d '{
  "title": "Clean the house",
  "description": "Clean the dust and vacuum the carpets",
  "completed": false
}'
```



Request URL

http://localhost:8000/items

Server response

CodeDetails

200

Response body

```
{
  "id": 2,
  "title": "Clean the house",
  "description": "Clean the dust and vacuum the carpets",
  "completed": false
}
```



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Response headers

```
content-length: 106
content-type: application/json
date: Sun,05 Jan 2025 12:08:05 GMT
server: uvicorn
```

POST /items Create Item

Parameters

No parameters

Request body required

application/json

```
{
  "title": "Buy groceries",
  "description": "Bread, butter",
  "completed": true
}
```

Execute

Clear

Responses

Curl

```
curl -X 'POST' \
  'http://localhost:8000/items' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
    "title": "Buy groceries",
    "description": "Bread, butter",
    "completed": true
  }'
```

Request URL

http://localhost:8000/items

Server response

Code	Details
------	---------

200	<div><p>Response body</p><pre>{ "id": 3, "title": "Buy groceries", "description": "Bread, butter", "completed": true }</pre><p>Response headers</p><pre>content-length: 79 content-type: application/json date: Sun, 05 Jan 2025 12:09:24 GMT server: uvicorn</pre></div>
-----	---



Download

Получение списка всех дел:

GET /items Get Items

Parameters

Cancel

No parameters

Execute

Clear

Responses

Curl

```
curl -X 'GET' \
'http://localhost:8000/items' \
-H 'accept: application/json'
```

Request URL

```
http://localhost:8000/items
```

Server response

Code	Details
200	<div>Response body<pre>[{ "id": 1, "title": "Watch TV", "description": "Watch sports on TV", "completed": false }, { "id": 2, "title": "Clean the house", "description": "Clean the dust and vacuum the carpets", "completed": false }, { "id": 3, "title": "Buy groceries", "description": "Bread, butter", "completed": true }]</pre></div> <div>Response headers<pre>content-length: 269 content-type: application/json date: Sun, 05 Jan 2025 12:10:28 GMT server: uvicorn</pre></div> <div>Download</div>

Получение элемента по id:

GET /items/{item_id} Get Item

Parameters

Cancel

Name	Description
item_id * required	
integer	2
(path)	

Execute

Clear

Responses

Curl

```
curl -X 'GET' \
'http://localhost:8000/items/2' \
-H 'accept: application/json'
```

Request URL

http://localhost:8000/items/2

Server response

CodeDetails

200

Response body

```
{
  "id": 2,
  "title": "Clean the house",
  "description": "Clean the dust and vacuum the carpets",
  "completed": false
}
```

Response headers

```
content-length: 106
content-type: application/json
date: Sun,05 Jan 2025 12:12:23 GMT
server: unicorn
```

Редактирование элемента:

PUT /items/{item_id} Update Item

Parameters

NameDescription

item_id * required
integer
(path)

2

Request body required

application/json

```
{
  "title": "Clean the house",
  "description": "Clean the dust and vacuum the carpets",
  "completed": true
}
```

Execute

Clear

Responses

Curl

```
curl -X 'PUT' \
'http://localhost:8000/items/2' \
-H 'accept: application/json' \
-H 'Content-Type: application/json' \
-d '{
  "title": "Clean the house",
  "description": "Clean the dust and vacuum the carpets",
  "completed": true
}'
```

Request URL

http://localhost:8000/items/2

Server response

CodeDetails

200

Response body

```
{
  "id": 2,
  "title": "Clean the house",
  "description": "Clean the dust and vacuum the carpets",
  "completed": true
}
```

Download

Response headers

content-length: 105
content-type: application/json
date: Sun,05 Jan 2025 12:14:29 GMT
server: uvicorn

Удаление элемента:

DELETE /items/{item_id} Delete Item

Parameters

Cancel

NameDescription

item_id * required
integer
(path)
2

Execute

Clear

Responses

Curl

```
curl -X 'DELETE' \
'http://localhost:8000/items/2' \
-H 'accept: application/json'
```

Request URL

http://localhost:8000/items/2

Server response

CodeDetails

200

Response body

```
{
  "message": "Item deleted"
}
```

Download

Response headers

content-length: 26
content-type: application/json
date: Sun,05 Jan 2025 12:22:20 GMT
server: uvicorn

Проверка удаления:

GET

/items

Get Items

Parameters

Cancel

No parameters

ExecuteClear

Responses

Curl

```
curl -X 'GET' \
'http://localhost:8000/items' \
-H 'accept: application/json'
```

Request URL

```
http://localhost:8000/items
```

Server response

Code	Details
200	<div><div>Response body<pre>[{ "id": 1, "title": "Watch TV", "description": "Watch sports on TV", "completed": false }, { "id": 3, "title": "Buy groceries", "description": "Bread, butter", "completed": true }]</pre></div><div>Response headers<pre>content-length: 162 content-type: application/json date: Sun,05 Jan 2025 12:22:27 GMT server: uvicorn</pre></div></div>

ShortURL-сервис

Создание образа, загрузка на Docker Hub и запуск контейнера:

```
/home/mobaxterm/final_project/shorturl_app  
2025-01-05 15:16.37 docker build -t aaauuuu/shorturl-service:latest .
```

```
[+] Building 2.7s (11/11) FINISHED                                docker:desktop-linux  
=> [internal] load build definition from Dockerfile                0.0s  
=> => transferring dockerfile: 347B                                0.0s  
=> [internal] load metadata for docker.io/library/python:3.9-slim 2.1s  
=> [auth] library/python:pull token for registry-1.docker.io       0.0s  
=> [internal] load .dockerignore                                   0.0s  
=> => transferring context: 2B                                       0.0s  
=> [1/5] FROM docker.io/library/python:3.9-slim@sha256:caaf1af9e23adc614 0.0s  
=> => resolve docker.io/library/python:3.9-slim@sha256:caaf1af9e23adc614 0.0s  
=> [internal] load build context                                   0.0s  
=> => transferring context: 3.29kB                                    0.0s  
=> CACHED [2/5] WORKDIR /app                                       0.0s  
=> CACHED [3/5] COPY requirements.txt .                             0.0s  
=> CACHED [4/5] RUN pip install --no-cache-dir -r requirements.txt 0.0s  
=> [5/5] COPY . .                                                  0.0s  
=> exporting to image                                              0.2s  
=> => exporting layers                                              0.1s  
=> => exporting manifest sha256:5702db3143bf00cd7de4edcba729c537bd35f86e 0.0s  
=> => exporting config sha256:d9cb0d5cdfcc6bd724c7a59fa335cbcd8d488fc217 0.0s  
=> => exporting attestation manifest sha256:b0de735ca85b3c27a9b1329c092d 0.0s  
=> => exporting manifest list sha256:69b308648a3997e853cf89a0ca1a97c9394 0.0s  
=> => naming to docker.io/aaauuuu/shorturl-service:latest         0.0s  
=> => unpacking to docker.io/aaauuuu/shorturl-service:latest      0.0s
```

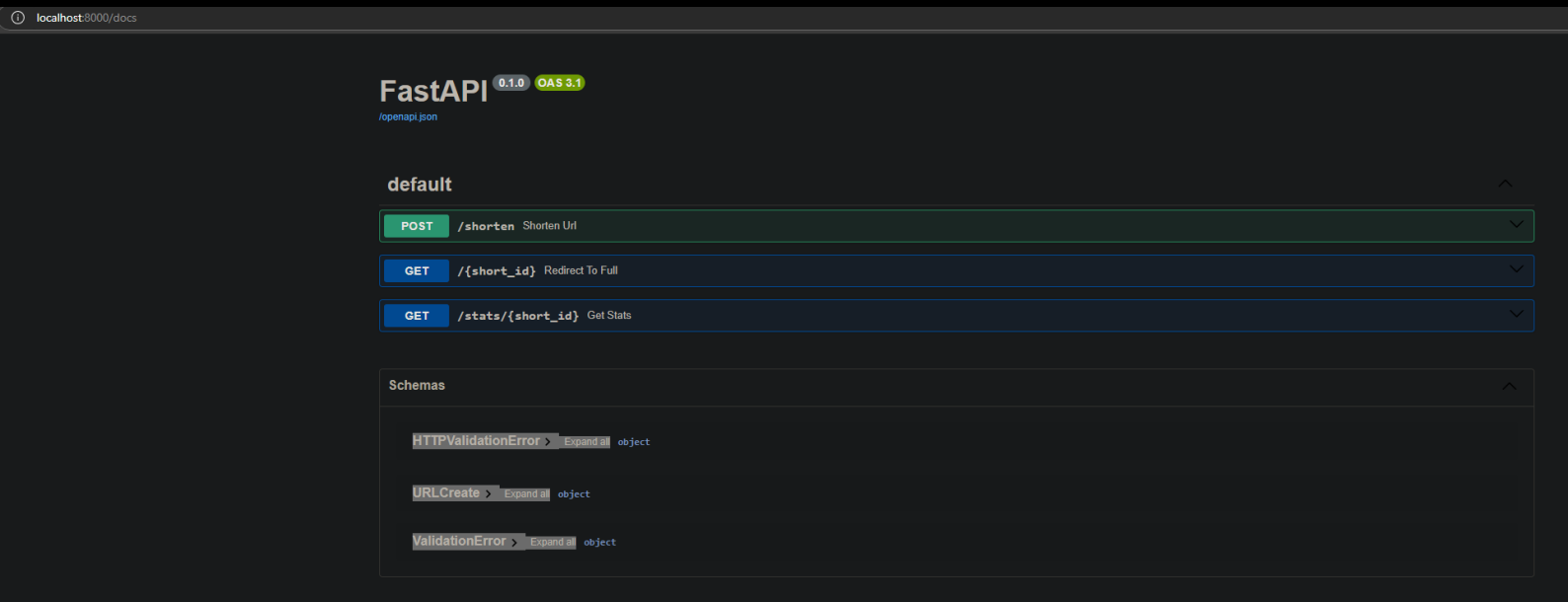
```
/home/mobaxterm/final_project/shorturl_app  
2025-01-05 15:25.10 docker push aaauuuu/shorturl-service:latest
```

```
The push refers to repository [docker.io/aaauuuu/shorturl-service]  
b6fbd1f29b29: Pushed  
f97e228b313d: Pushed  
3770894383c4: Pushed  
d381bf0bfd6e: Pushed  
11bf94da8b1c: Pushed  
9feece89654b: Pushed  
fd674058ff8f: Pushed  
75a2bc32319e: Pushed  
96df0e5e8179: Pushed  
latest: digest: sha256:69b308648a3997e853cf89a0ca1a97c9394cde68537c716e59083ca491d12f16 size: 856
```

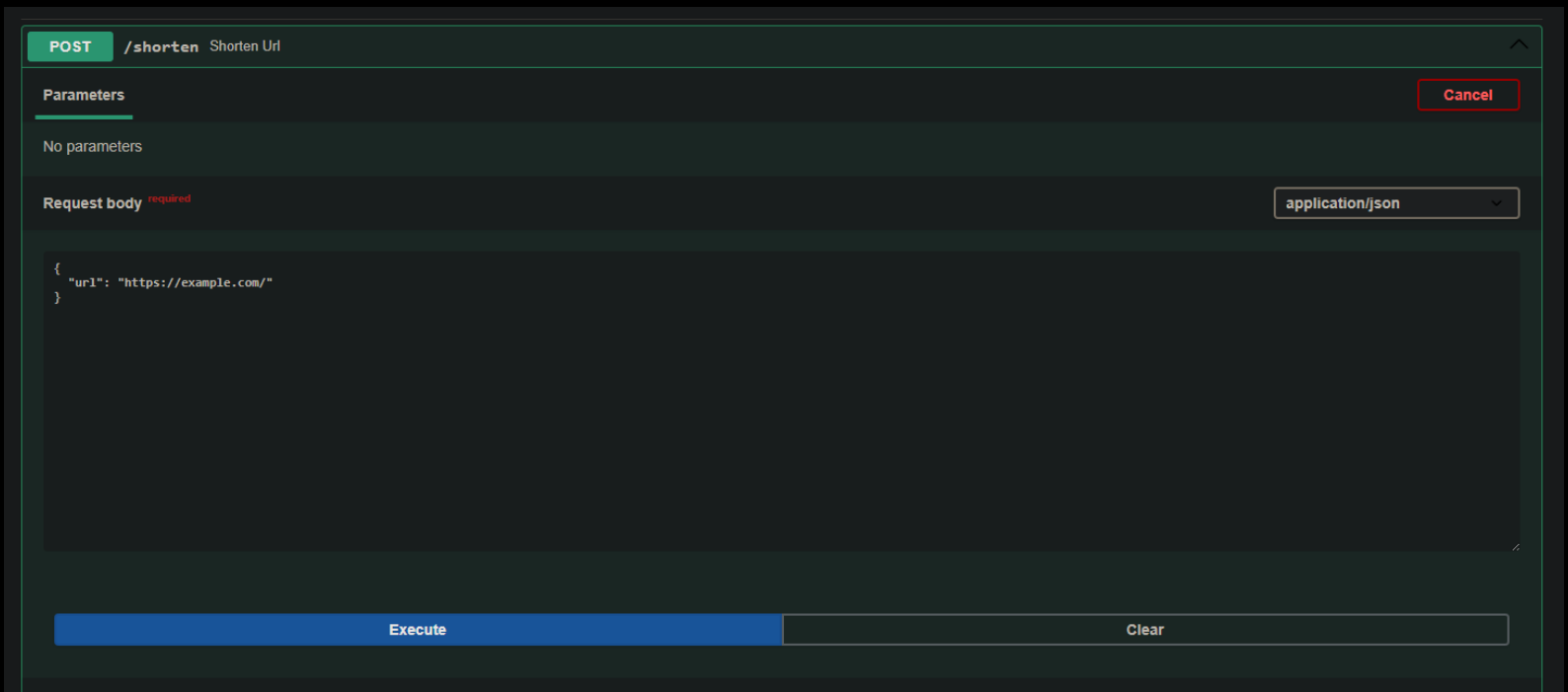
```
/home/mobaxterm/final_project/shorturl_app
```

```
2025-01-05 15:25.57 docker run -d -p 8000:80 -v shorturl_data:/app/data  
aaauuuu/shorturl-service:latest  
6220143b7e6ea07631dac31defd556233560184b083e9784a637106b57f67fdc
```

Интерфейс сервиса для сокращения ссылок:



Сокращение URL:



Responses

Curl

```
curl -X 'POST' \
  'http://localhost:8000/shorten' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
    "url": "https://example.com/"
  }'
```



Request URL

http://localhost:8000/shorten

Server response

CodeDetails

200

Response body

```
{
  "short_url": "http://localhost:8000/o46Yh6"
}
```



Download

Response headers

```
content-length: 44
content-type: application/json
date: Sun, 05 Jan 2025 12:42:58 GMT
server: uvicorn
```

Переход на страницу по сокращенной ссылке:

https://example.com

Example Domain

This domain is for use in illustrative examples in documents. You may use this domain in literature without prior coordination or asking for permission.

[More information...](#)

Вывод данных о ссылке:

GET

/stats/{short_id} Get Stats

Parameters

Cancel

Name	Description
short_id ^{required}	
string (path)	52vOZM

ExecuteClear

Responses

Curl

```
curl -X 'GET' \
'http://localhost:8000/stats/52vOZM' \
-H 'accept: application/json'
```

Request URL

```
http://localhost:8000/stats/52vOZM
```

Server response

Code	Details
200	<div>Response body<pre>{ "short_id": "52vOZM", "full_url": "https://example.com/" }</pre></div> <div>Response headers<pre>content-length: 55 content-type: application/json date: Sun,05 Jan 2025 13:39:50 GMT server: uvicorn</pre></div>

Образы сервисов загружены на DockerHub:

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A

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aaaauuu/shorturl-service

By aaaaauuu · Updated 3 hours ago

18 · 0

aaaauuu/todo-service

By aaaaauuu · Updated 4 hours ago

19 · 0