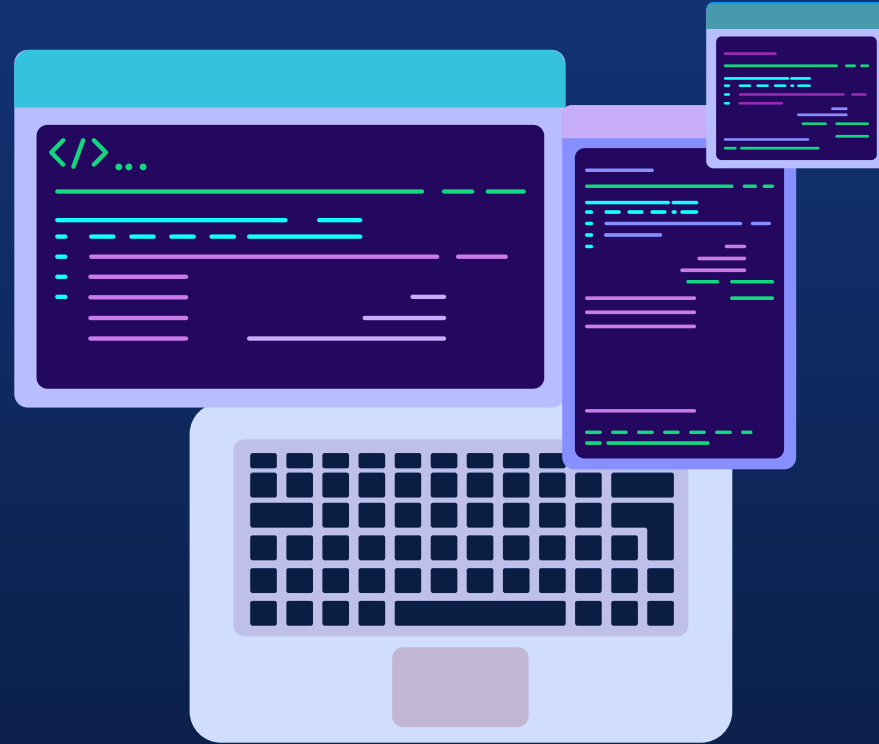# Bitcoin Exchange

Start2Impact
MongoDB project

Description

Exchange service to trade BTC/USD. The web-app only provides API endpoints with the following features:

API endpoints

1. User registration via token.
2. Authentication via token.
3. Retrieve user's profile information and account balance.
4. List all user's orders or create a new one.
5. Retrieve or delete a specific user's order (only active orders can be deleted).
6. Retrieve all active orders opened by other users.

Frameworks and technologies

Django

Core of the application

Django REST Framework

Services for external applications

MongoDB

Web-app structure and main storage

Djongo

Interface between Django and MongoDB

API ENDPOINTS OVERVIEW

```
GET /api/profile/

HTTP 200 OK
Allow: GET, HEAD, OPTIONS
Content-Type: application/json
Vary: Accept

{
    "id": 1,
    "user": "admin",
    "active_orders": 1,
    "executed_orders": 0,
    "dollar_balance": 0.0,
    "bitcoin_balance": 2.5999772244924504,
    "bitcoin_profit_percent": 0.0
}
```

/api/profile/

This endpoint accepts GET requests and returns the user's account data including the account balance.

/api/orders/

This endpoint accepts GET and POST requests. Depending on the method used, it returns a list containing all the orders created by the user or creates a new order if the fields sent are valid.

```
GET /api/orders/

HTTP 200 OK
Allow: GET, POST, HEAD, OPTIONS
Content-Type: application/json
Vary: Accept

[
    {
        "id": 1,
        "profile": "admin",
        "status": true,
        "created_at": "09/09/2021, 12:40:38",
        "executed_at": null,
        "price": 100.0,
        "quantity": 0.5,
        "type": "S"
    }
]
```

```
GET /api/orders/1/

HTTP 200 OK
Allow: GET, DELETE, HEAD, OPTIONS
Content-Type: application/json
Vary: Accept

{
    "id": 1,
    "profile": "admin",
    "status": true,
    "created_at": "09/09/2021, 12:40:38",
    "executed_at": null,
    "price": 100.0,
    "quantity": 0.5,
    "type": "S"
}
```

/api/orders/order_id/

This endpoint accepts GET and DELETE requests. Depending on the method used, it returns the details of a specific order created by the user or deletes it if it has not yet been executed.

/api/orders/latest/

This endpoint accepts GET requests and returns a list containing all active orders created by other users.

```
GET /api/orders/latest/

HTTP 200 OK
Allow: GET, HEAD, OPTIONS
Content-Type: application/json
Vary: Accept

[
    {
        "id": 1,
        "price": 100.0,
        "quantity": 0.5,
        "type": "S",
        "created_at": "09/09/2021, 12:40:38"
    }
]
```
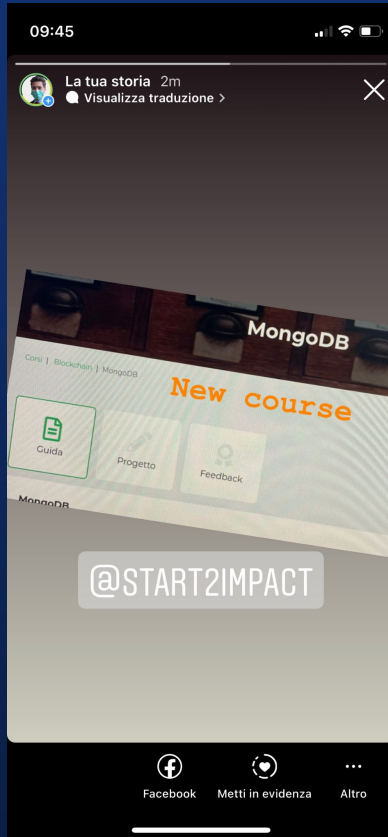
Bonus Mentoring

THANKS

Source code on GitHub
Live demo on Amazon AWS
My profile on Start2Impact
My profile on Linkedin