



# CODE CHALLENGE

SOLUTION

JUAN DAVID ROJAS RAMIREZ

Bogota, Colombia

# SET UP

1. Download VsCode : <https://www.youtube.com/watch?v=CPmQwlycfGI>
2. Install Python : <https://www.python.org/downloads/>
3. Download and configure the repo from GitHub: <https://github.com/JuanDRoj/Code.git>
4. Configure a virtual environment inside the project and then install Django: <https://www.youtube.com/watch?v=f1NQnhFFV-E>
5. Install PostgreSQL for the DB management: <https://www.youtube.com/watch?v=0n41UTkOBb0>

6. The configuration of the DB installation must follow the following parameters:

```
'NAME': 'zeply_storage',  
'USER': 'postgres',  
'PASSWORD': 'zeply',
```

7. If you have already installed it you have to change those parameters according to your settings in the **settings.py** file that is located inside the folder called “zeply” .
8. Install the libraries listed in the **requirements.py** on your virtual environment.

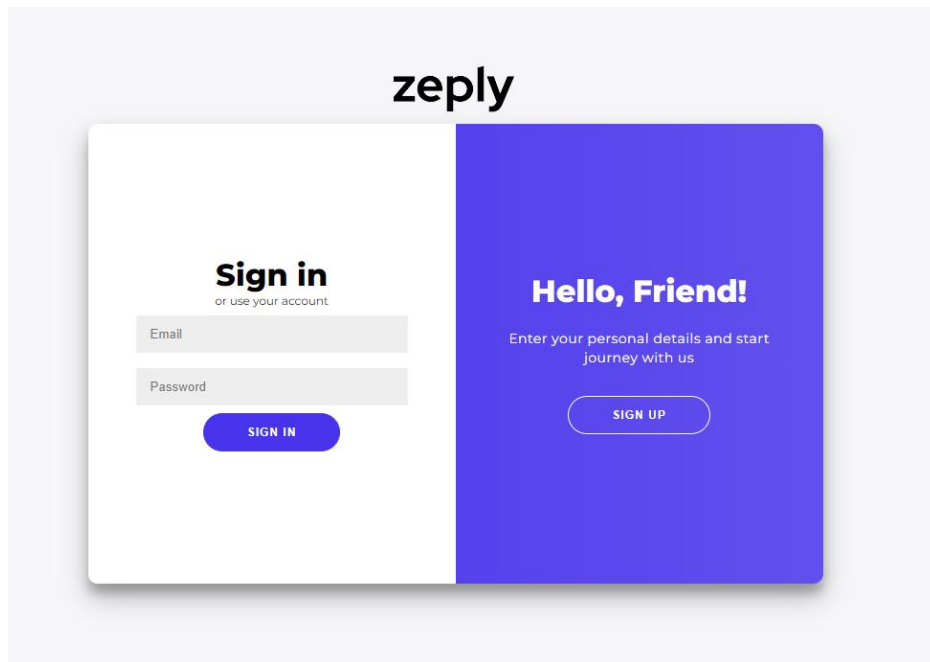
```
bitcoin==1.1.42  
cryptography==40.0.2  
Django==4.2.1  
eth_utils==2.1.0  
mnemonic==0.20  
psycpg2-binary==2.9.6
```

9. Run the next command inside the project folder using the terminal: **python manage.py migrate** to generate the tables inside your DB environment.
10. If everything goes well, you shouldn't have problem to run the app using **python manage.py runserver**. It must show something like this.

```
System check identified no issues (0 silenced).  
May 23, 2023 - 22:41:06  
Django version 4.2.1, using settings 'zeply.settings'  
Starting development server at http://127.0.0.1:8000/  
Quit the server with CTRL-BREAK.
```

# How does it work?

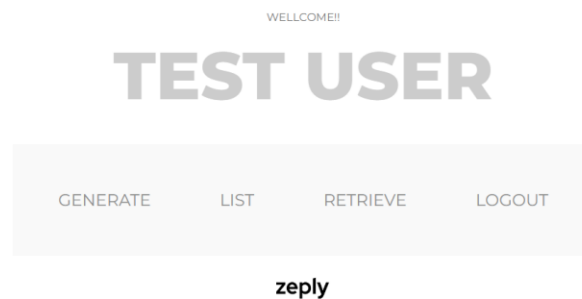
When you open the link that appears when you start the server, in my case <http://127.0.0.1:8000/> you should see the next screen:



You must create a new user at first just for authentication purposes. So, you must click on the sing up button, then fill the information that the program is asking.

After this you must sing in with the email and password that introduced on registration.

If the authentication is correct you are going to be redirected to a new screen:



In this screen you can select the tasks from the challenge:

- Generate
- List
- Retrieve

And log out from that account.

## GENERATE

Going to the generate screen must show something like this.

zeply



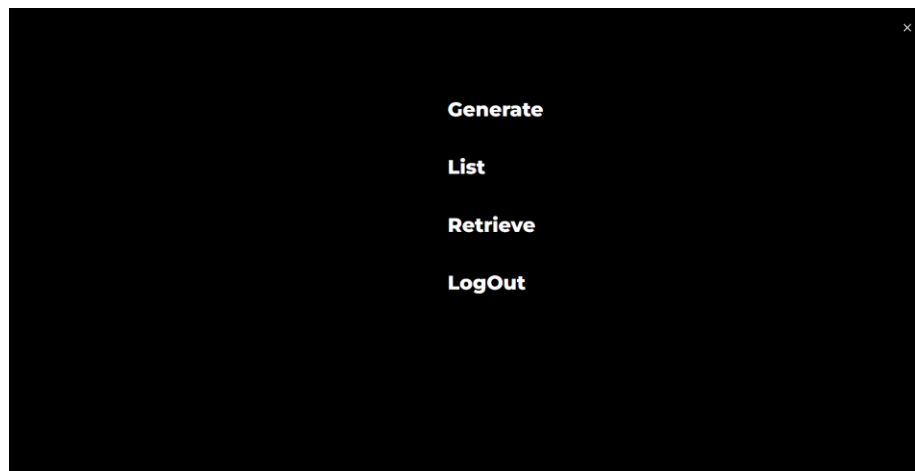
**TEST USER! Please  
Select your  
Cryptocurrency**

BTC

GENERATE ADDRESS

Here you can select the crypto that you want to generate. This is going to create a unique seed for the user, the first time you click and is going to be encrypted and saved in a table, after this all the addresses for that user are going to be generated with the same seed.

You can see that at the top there are 2 important things, the logo that if you click on it will redirect you to the main screen and a menu that allows you to navigate through each task in the same way.



## LIST

If you go to the list option you can see all the addresses that you have generated, and it includes a filter of each type of crypto that you want to see.

zePLY



### Address List - TEST USER

id	Address	Cryptocurrency	Validation
41	1KsSuw3i8MXqah7QdyYeenASmyZ4gJ5Wgn	BTC	<a href="https://www.blockchain.com">https://www.blockchain.com</a>
42	0xF4a21250a347629f562E765b1c7aDE895E5D066	ETH	<a href="https://www.blockchain.com">https://www.blockchain.com</a>
43	1AUPRJcALQk1GUoWt7Ztyc4wHBg7hM8mTg	BTC	<a href="https://www.blockchain.com">https://www.blockchain.com</a>
44	13No6ticdXmFudy3nBMUxgHlw4b3dErC7	BTC	<a href="https://www.blockchain.com">https://www.blockchain.com</a>
45	T7PTfxWkvwqg8lUhbwsUVY2bpitizuG9Su	BTC	<a href="https://www.blockchain.com">https://www.blockchain.com</a>
46	14ZdC4uQm8WkFKyW5WZtCBACQvacnU5uPU	BTC	<a href="https://www.blockchain.com">https://www.blockchain.com</a>

Filter:

ALL

The validation column redirects you to bitcoin.com to ensure that the address is correct in each case.

## RETRIEVE

Finally, if you go to retrieve you should see something like this.

zePLY



### TEST USER! Search Address by ID:

ID

SEARCH ADDRESS

You just must input the id of the address and then it will show you the address and the same link to bitcoin.com to validate it.

zePLY



### TEST USER! Search Address by ID:

ID

SEARCH ADDRESS

Your BTC Address is 1AUPRJcALQk1GUoWt7Ztyc4wHBg7hM8mTg, please  
validate in <https://www.blockchain.com>

