

Backend Installation Guide:

Setup:

Repository:

<https://github.com/SustainableUrbanSystemsLab/User-Backend>

Requirements:

- **.NET SDK (7.0 or later):** Install .NET: <https://dotnet.microsoft.com/en-us/download>
- **MongoDB :** <https://www.mongodb.com/products/platform/atlas-database>
- **Metabase installed locally (used for admin dashboard):** <https://www.metabase.com/>
- **Docker (Used to run Metabase):** <https://www.docker.com/>

Secrets and Environment Variables:

1. **Create .env file in Urbano_Api directory**
2. **Populate with and Define Secrets:**
 - a. SMTP_USERNAME
 - b. SMTP_PASSWORD
 - c. SMTP_SERVER
 - d. SMTP_PORT
 - e. MAILING_EMAILFROM
 - f. MAILING_EMAILNAME
 - g. SECRETKEY
 - h. PASSWORDSALT
 - i. MONGO_CONNECTIONSTRING
3. **Development Setup: Console Commands for DotNetEnv:**
 - a. dotnet dev-certs https --trust
 - b. dotnet add package DotNetEnv
4. **Production Host's Environment Variables that Need to be Set on the Production Server:**
 - a. MAILING_EMAILFROM
 - b. MAILING_EMAILNAME
 - c. MONGO_CONNECTIONSTRING
 - d. PASSWORDSALT
 - e. SECRETKEY
 - f. SMTP_PASSWORD
 - g. SMTP_PORT
 - h. SMTP_SERVER

Ensure the host server has the following environment variables set or configured in Appsettings.Production.json:

- "UiURL": "your UI/frontend URL",
- "ApiURL": "your API host URL"

Running API Server and Accessing Endpoints:

Development:

- Run "dotnet run" in your console

Production:

- Start the backend server on your production host.

API Endpoints:

POST <<url>>/register

POST <<url>>/login

POST <<url>>/simulate

POST <<url>>/otp/generate?purpose=password-reset

POST <<url>>/otp/generate?purpose=email-change

POST <<url>>/otp/verify?purpose=password-reset

POST <<url>>/otp/verify?purpose=email-change

PUT <<url>>/password

PUT <<url>>/email

GET <<url>>/Admin/user/role-get/<<username>>

PUT <<url>>/Admin/user/role-set

PUT <<url>>/Admin/user/deactivate

POST <<url>>/Wallet/balance

POST <<url>>/Wallet/add-token

POST <<url>>/Wallet/remove-token

POST <<url>>/Wallet/verify-token

PUT <<url>>/Admin/user/set-migratedFlag

PUT <<url>>/Admin/user/remove-community

Using Admin Dashboard:

1. Run "bash run_metabase.sh" in terminal in Urbano_API directory
2. Wait a few minutes for installation and setup to happen
3. Open browser and type in localhost:3000 into search bar and search
4. Put in information prompted (first name, last name, username)
5. Put in database information prompted
6. After submitting info, go to home page
7. Press button of dashboard desired to be viewed (Simulations Daily, Users, etc.)

Troubleshooting:

Environment variables not loading

- Make sure the DotNetEnv package is installed and the .env file is located in the correct directory (Urbano_Api/).

SSL certificate issues when running the server

- Run the following command to trust the development certificate: `dotnet dev-certs https --trust`

Unable to connect to MongoDB

- Double-check your MONGO_CONNECTIONSTRING value in the .env file. Also, ensure your internet connection is working if you're using MongoDB Atlas.