

Python Web Server

Overview

This web server provides information about itself and its environment.

Prerequisites

- Python 3.14.0
- pip
- git

Installation

```
python -m venv venv
source venv/bin/activate
pip install -r requirements.txt
```

Running the Application

You can create `.env` file storing all environment values. To run application simply type:

```
python app.py
```

Docker Support

Building from Source

Create a Docker image locally from the application code:

```
docker build -t <image-name>:<tag> .
```

Container Execution

Run the application in an isolated container environment:

```
docker run --rm -p <host-port>:<container-port> --name <container-name>
<image-name>:<tag>
```

Using Pre-built Images

The service is also available on Docker Hub for immediate deployment:

```
# Download the published image  
docker pull abrahambarrett228/lab02  
  
# Run the downloaded image  
docker run --rm -p 5000:5000 abrahambarrett228/lab02
```

Container Management

Basic operations for container lifecycle management:

```
# List running containers  
docker ps  
  
# Stop a running container  
docker stop <container-name>  
  
# View container logs  
docker logs <container-name>  
  
# Interactive shell access  
docker exec -it <container-name> /bin/sh
```

API Endpoints

- **GET /** - service data
- **GET /health** - Health check

Configuration

Supported environment values:

- **HOST** - address of the application
- **PORT** - port of the application
- **DEBUG** - [true/false] do/don't enable debug features