

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