

# Annotated Deployment Guide - Flask on Ubuntu

## Step 1: Update the Server

```
sudo apt update
```

Explanation: Updates the package list to make sure you install the latest versions of packages.

## Step 2: Install Python & Build Tools

```
sudo apt install -y python3 python3-pip python3-venv g++ build-essential python3-dev libmariadb-dev  
dh-python
```

Explanation: Installs Python 3, pip, virtual environment support, and essential build tools required for compiling and running your Flask app.

## Step 3: Set Up Your Flask App Directory

```
mkdir ~/daniyel_app && cd ~/daniyel_app
```

```
python3 -m venv venv
```

```
source venv/bin/activate
```

Explanation: Creates a project folder and a virtual environment to isolate your Flask app's dependencies.

## Step 4: Install Flask

```
pip install flask
```

Explanation: Installs the Flask web framework inside the virtual environment.

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## Step 5: Create Your Flask App

```
vi app.py
```

Paste this code:

```
from flask import Flask
```

```
app = Flask(__name__)
```

```
@app.route('/')
def home():
```

```
    return "Daniyel Python Application Deployed"
```

```
if __name__ == '__main__':
```

```
    app.run(host='0.0.0.0', port=5000)
```

Explanation: Sets up a basic Flask web server that responds with a success message when accessed from the root URL.

## Step 6: Test Locally on Server

```
python app.py
```

Explanation: Starts the Flask development server. You can test it by visiting <http://<server-ip>:5000> in your browser.