**Running with Builtin, WSGI and uWSGI on Flask**

**\*\*\***Always work under the **Virtual Environment\*\*\***

1. **Run Builtin server**

python3 flaskserver.py

**Perform Tests on Gunicorn Server by changing the parameters.**

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1. **Create a wsgi.py file [Common for both WSGI and uWSGI Servers]**

# wsgi.py

# In this code, the from file name must be the **flaskserver.py** is the main application file must be in **same folder**.

|  |
| --- |
| from **flaskserver** import app  if \_\_name\_\_ == "\_\_main\_\_":  app.run() |

1. **Run Gunicorn server (WSGI Server)**
   1. Run with **Gunicorn** (wsgi is the name of the ‘wsgi.py’ file where the gunicorn server code is mentioned) with debug information:

gunicorn -w 4 -b 0.0.0.0:5000 wsgi:app

**OR**

gunicorn -w 4 -b 0.0.0.0:5000 --log-level debug --access-logfile - --error-logfile - **wsgi:app**

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**Perform Tests (curl or ab** from **other Terminal) on Gunicorn (WSGI) Server by changing the parameters.**

Press **‘CTRL+C’** twice to Close.

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1. **Running with uWSGI (uWSGI Server)**

Use the same ‘**wsgi.py**’ file for uWSGI also.

* 1. **Run below:**
     1. **Option 1**

uwsgi --http :5000 --module wsgi:app --processes 4 --threads 2

**Run** the ***stop\_uwsgi.sh*** script to **STOP** the process at port 5000 from **other terminal**.

**OR**

* + 1. **Option 2**

**Create** a **‘uwsgi.ini’** file in same directory as below [Change the processes and threads parameters for each Test]

|  |
| --- |
| [uwsgi]  module = wsgi:app  master = true  processes = 4  threads = 2  http = :5000  die-on-term = true  logto = ./uwsgilog.log |

**Run** with **uWSGI:**

uwsgi --ini uwsgi.ini

**Run** the ***stop\_uwsgi.sh*** script to **STOP** the process at port 5000 from **other terminal**.

**Perform Tests (curl or ab** from **other Terminal) on uWSGI Server by changing the parameters.**

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**File Structure of the Project Directory for Flask**

**Mandatory**

* flaskserver.py [for all servers]
* requirements.txt [for all servers to be installed initially, if not installed]
* ollama\_api\_logs.csv [generated from the flaskserver.py after API calls]
* wsgi.py [for WSGI server (gunicorn) and uWSGI sever (uwsgi)]

**Optional [for uWSGI Server handling]**

* uwsgi.ini [for uWSGI server Option2]
* uwsgilog.log [Output of logs from uwsgi.ini]

**Mandatory to Stop uWSGI Server**

* + stop\_uwsgi.sh [Shell script to STOP uWSGI server to Release the processes from Port 5000]

**Always Check Processes at Port 5000 and Process Killing [OPTIONAL]**

* Check for any process **running at port 5000**

sudo lsof -i :5000

* If processes are running at port 5000, then **kill** them

sudo kill -9 <PID>