

Flask – Installation

This tutorial will guide you to set up a private Flask environment in the “daw” server. (Substitute ‘9999’ with your student number)

Step 0: Login to the daw server

```
a9999@australia:~$ ssh a9999@10.10.23.183
```

Step 1: Create a virtual environment

```
a9999@daw:~$ virtualenv -p /usr/bin/python2.7 flaskenv
```

To activate the virtual environment run the following command

```
a9999@daw:~$ source ~/flaskenv/bin/activate
```

Step 2: Install Flask

To install Flask type the following command:

```
(flaskenv) a9999@daw:~$ pip install Flask==0.10.1
```

To install the `gunicorn` web server running in the virtual environment type the following command:

```
(flaskenv) a9999@daw:~$ pip install gunicorn
```

To install the `mysql` driver type the following command:

```
(djangoenv) a9999@daw:~$ pip install mysql-python
```

Step 3: Installation Verification

Now set up your test project:

```
(flaskenv)a9999@daw:~$ mkdir ~/public_html/flask_project &&  
(flaskenv)a9999@daw:~$ cd ~/public_html/flask_project
```

Create your test project `app.py`

```
(flaskenv)a9999@daw:~/public_html/flask_project$ nano app.py
```

```
from flask import Flask, jsonify  
app = Flask(__name__)  
  
@app.route('/')  
def index():  
    return 'Flask is running!'  
  
@app.route('/data')  
def names():  
    data = {"names": ["John", "Jacob", "Julie", "Jennifer"]}  
    return jsonify(data)
```

```
if __name__ == '__main__':  
    app.run()
```

Set up a static directory

```
(flaskenv)a9999@daw:~/public_html/flask_project$ mkdir static  
(flaskenv)a9999@daw:~/public_html/flask_project$ cd static  
(flaskenv)a9999@daw:~/public_html/flask_project/static$ nano index.html  
<h1>Test!</h1>
```

Step 4: Start the web server*

```
(flaskenv)a9999@daw:~$ cd ~/public_html/flask_project  
(flaskenv)a9999@daw:~/public_html/flask_project$ gunicorn app:app -b  
10.10.23.183:9999
```

Now open your browser and type the following address text box. Verify if everything is setup correctly

```
http://10.10.23.183:9999  
http://10.10.23.183:9999/static/index.html
```

Step 5: Get out of the virtual environment

When you are finished get out of the virtual environment

```
(flaskenv)a999999@daw:~$ deactivate  
a999999@daw:~$
```

*IMPORTANT NOTE

If you are working from home, the IP 10.10.23.183 is not accessible because it is a private IP. You have to login to the UALG network using the **UALG VPN service** or activate a **ssh tunnel**:

- In the linux environment

```
user@laptop:~$ ssh -L 9999:10.10.23.183:9999 a9999@ssh.deei.fct.ualg.pt
```

- In the windows environment using PuTTY

