

First Flask application

In this section of the tutorial, we will build our first python website built using the Flask framework. In this process, open any text editor of your choice as we are using the sublime text editor in this tutorial.

Write the following lines of code and save to a file named as script.py.

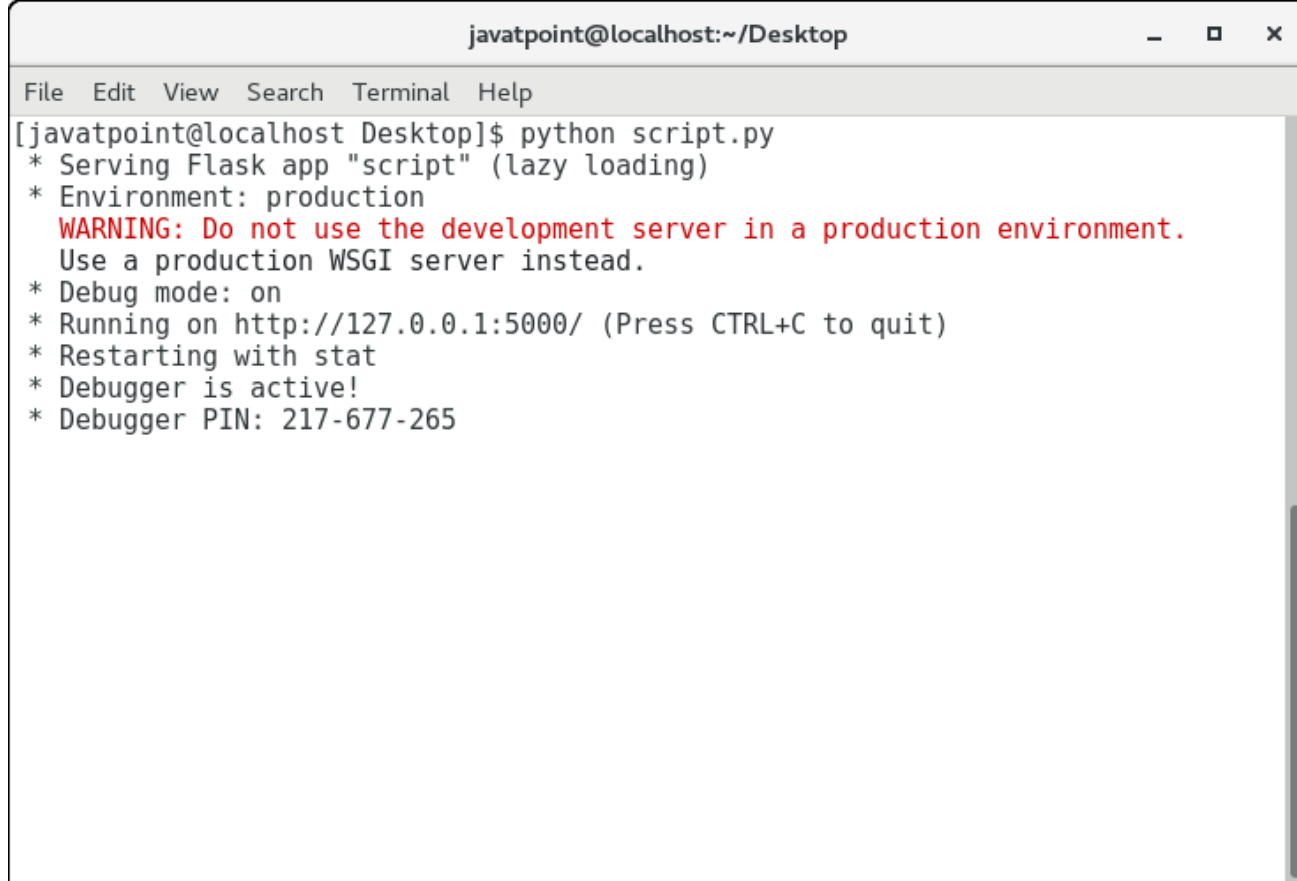
```
from flask import Flask

app = Flask(__name__) #creating the Flask class object

@app.route('/') #decorator drfines the
def home():
    return "hello, this is our first flask website";

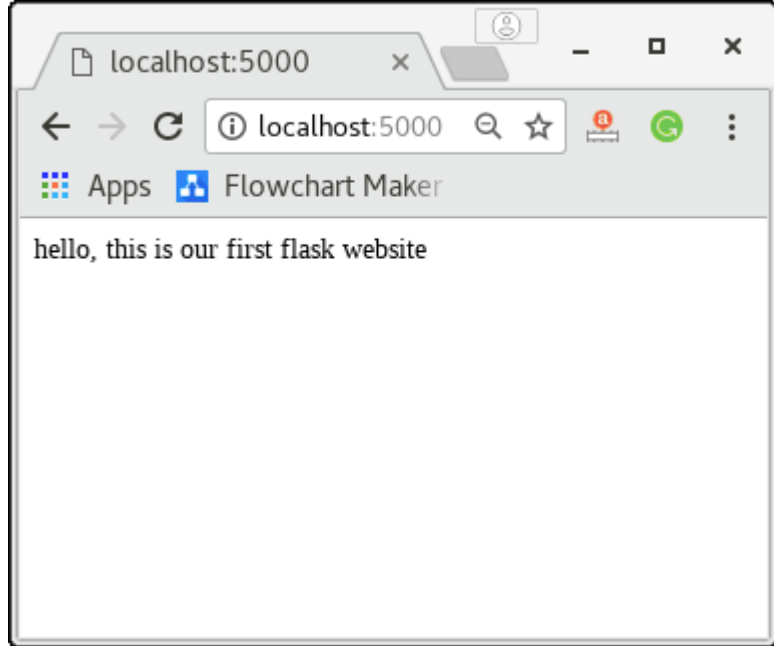
if __name__ == '__main__':
    app.run(debug = True)
```

Let's run this python code on the command line and check the result.

A terminal window titled 'javatpoint@localhost:~/Desktop' with standard window controls. The terminal shows the command 'python script.py' and its output, including a warning about the production environment and the server running on http://127.0.0.1:5000/.

```
javatpoint@localhost:~/Desktop
File Edit View Search Terminal Help
[javatpoint@localhost Desktop]$ python script.py
* Serving Flask app "script" (lazy loading)
* Environment: production
  WARNING: Do not use the development server in a production environment.
  Use a production WSGI server instead.
* Debug mode: on
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
* Restarting with stat
* Debugger is active!
* Debugger PIN: 217-677-265
```

Since it is a web application, therefore it is to be run to on the browser at <http://localhost:5000>.



To build the python web application, we need to import the Flask module. An object of the Flask class is considered as the WSGI application.

We need to pass the name of the current module, i.e. `__name__` as the argument into the Flask constructor.

The `route()` function of the Flask class defines the URL mapping of the associated function. The syntax is given below.

```
app.route(rule, options)
```

It accepts the following parameters.

1. rule: It represents the URL binding with the function.
2. options: It represents the list of parameters to be associated with the rule object

As we can see here, the / URL is bound to the main function which is responsible for returning the server response. It can return a string to be printed on the browser's window or we can use the HTML template to return the HTML file as a response from the server.

Finally, the run method of the Flask class is used to run the flask application on the local development server.

The syntax is given below.

```
app.run(host, port, debug, options)
```

SN	Option	Description
1	host	The default hostname is 127.0.0.1, i.e. localhost.
2	port	The port number to which the server is listening to. The default port number is 5000.
3	debug	The default is false. It provides debug information if it is set to true.
4	options	It contains the information to be forwarded to the server.