

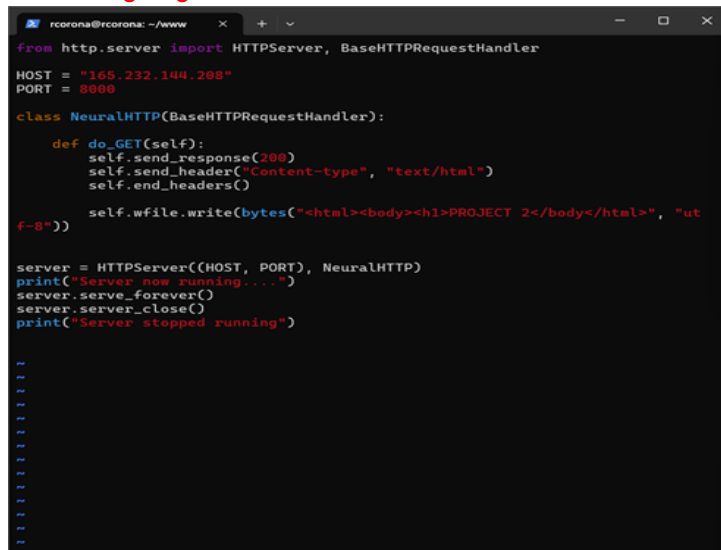
## How to set up a server with python

### Part 1-Set up

1. Check to see if python is installed with the command: python3
  - a. If not installed use command: sudo apt install python3.8
  - b. If installed the output should be

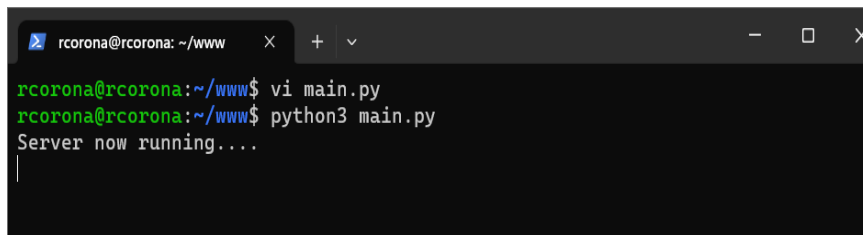
```
rcorona@rcorona:~/www$ python3
Python 3.10.7 (main, Mar 10 2023, 10:47:39) [GCC 12.2.0] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> quit()
rcorona@rcorona:~/www$ |
```

2. Create a file **<name it whatever you like>.py**
3. In the file type
  - a. **HOST is going to be the I.P for YOUR website**



```
rcorona@rcorona: ~/www
from http.server import HTTPServer, BaseHTTPRequestHandler
HOST = "165.232.144.208"
PORT = 8080
class NeuralHTTP(BaseHTTPRequestHandler):
    def do_GET(self):
        self.send_response(200)
        self.send_header("Content-type", "text/html")
        self.end_headers()
        self.wfile.write(bytes("<html><body><h1>PROJECT 2</body></html>", "utf-8"))
server = HTTPServer((HOST, PORT), NeuralHTTP)
print("Server now running...")
server.serve_forever()
server.server_close()
print("Server stopped running")
~
~
~
~
~
~
~
~
~
~
```

- b. Save the file
4. Next, run the command python3 **<your file name>.py**
  - a. this is the OUTPUT you should get if no errors



```
rcorona@rcorona: ~/www
rcorona@rcorona:~/www$ vi main.py
rcorona@rcorona:~/www$ python3 main.py
Server now running...
```

### Part 2-Setting up the port

1. Go to cd /etc/apache2/sites-available
  - a. Do sudo vi python3.port.conf

b. Next we going to write in this file the following:

```
rcorona@rcorona: /etc/apache2$ cat /etc/apache2/sites-available/000-default.conf
<VirtualHost *:80>
# The ServerName directive sets the request scheme, hostname and port that
# the server uses to identify itself. This is used when creating
# redirection URLs. In the context of virtual hosts, the ServerName
# specifies what hostname must appear in the request's Host: header to
# match this virtual host. For the default virtual host (this file) this
# value is not decisive as it is used as a last resort host regardless.
# However, you must set it for any further virtual host explicitly.
<Directory /home/rcorona/www/test>
    Options +ExecCGI
    DirectoryIndex main.py
    AllowOverride None
    Require all granted
</Directory>
AddHandler cgi-script .py
ServerName rcorona.cs3680.com

ServerAdmin rcorona6@csub.edu
DocumentRoot /home/rcorona/www/test

# Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
# error, crit, alert, emerg.
# It is also possible to configure the loglevel for particular
# modules, e.g.
#LogLevel info ssl:warn

ErrorLog ${APACHE_LOG_DIR}/error.log
CustomLog ${APACHE_LOG_DIR}/access.log combined

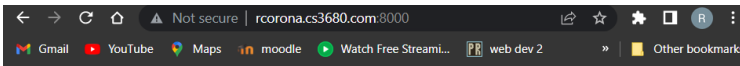
# For most configuration files from conf-available/, which are
# enabled or disabled at a global level, it is possible to
# include a line for only one particular virtual host. For example the
# following line enables the CGI configuration for this host only
~
~
~
~
~
```

d. Server name is going to be the website you set up already or I.P  
c. next do the command sudo ufw 8000

### part-3 how to access the website

a. go to the python file and type the command python3 <your filename>.py

b. once the server is running go to your favorite browser and type <your website>:8000



## PROJECT 2

c. This is what should pop up on the server side:

```
rcorona@rcorona: /etc/apache2/sites-available$ cd
rcorona@rcorona: ~$ cd www/test
rcorona@rcorona: ~/www/test$ python3 main.py
Server now running...
136.168.49.2 - - [19/Apr/2023 16:19:20] "GET / HTTP/1.1" 200 -
136.168.49.2 - - [19/Apr/2023 16:19:20] "GET /favicon.ico HTTP/1.1" 200 -
```