

PROJECT NAME: News Tracker Application

TEAM ID: PNT2022TMID22510

SPRINT-3

```
# Using flask to make an api

# import necessary libraries and functions
from flask import Flask, jsonify, request

# creating a Flask app
app = Flask(__name__)

# on the terminal type: curl http://127.0.0.1:5000/ #
# returns hello world when we use GET.
# returns the data that we send when we use POST.
@app.route('/', methods = ['GET', 'POST'])
def home():
    if(request.method == 'GET'):

        data = "hello world"
        return jsonify({'data': data})

# A simple function to calculate the square of a number
```

```

# the number to be squared is sent in the URL when we use GET

# on the terminal type: curl http://127.0.0.1:5000 / home / 10

# this returns 100 (square of 10)

@app.route('/home/<int:num>', methods = ['GET'])

def disp(num):

    return jsonify({'data': num**2})

# driver function

if __name__ == '__main__':

    app.run(debug = True) # import necessary libraries and functions
from flask import Flask, jsonify, request

# creating a Flask app

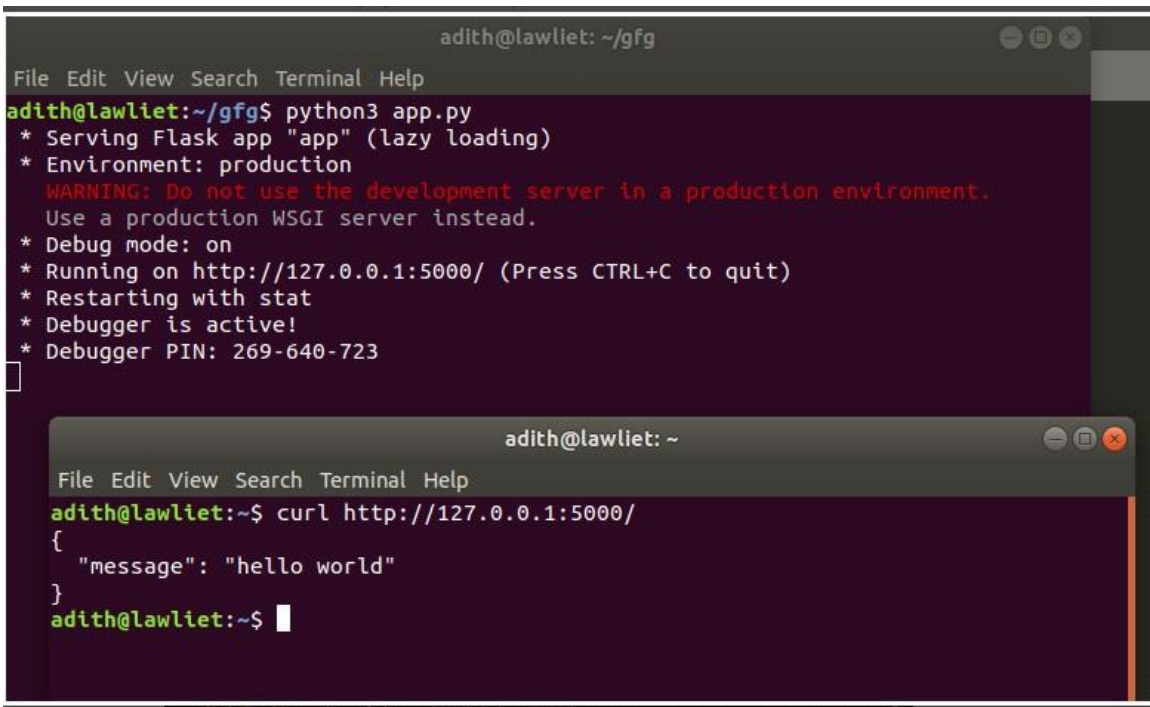
app = Flask(__name__)

# on the terminal type: curl http://127.0.0.1:5000/ #
returns hello world when we use GET.

# returns the data that we send when we use POST.

```

OUTPUT :



The image shows two terminal windows. The top window, titled 'adith@lawliet: ~/gfg', displays the output of running 'python3 app.py'. It shows the Flask app starting in production mode on http://127.0.0.1:5000/. The bottom window, titled 'adith@lawliet: ~', shows the output of a 'curl' command to the same URL, returning a JSON object with the message 'hello world'.

```
adith@lawliet: ~/gfg
File Edit View Search Terminal Help
adith@lawliet:~/gfg$ python3 app.py
* Serving Flask app "app" (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: 269-640-723

adith@lawliet: ~
File Edit View Search Terminal Help
adith@lawliet:~$ curl http://127.0.0.1:5000/
{
  "message": "hello world"
}
adith@lawliet:~$
```

Method :

using flask_restful

from flask import Flask, jsonify,

request from flask_restful import

Resource, Api

creating the flask app

app = Flask(__name__)

creating an API

object api = Api(app)

making a class for a particular resource

the get, post methods correspond to get and post requests

they are automatically mapped by flask_restful.

other methods include put, delete, etc.

```

class Hello(Resource):

    # corresponds to the GET request.
    # this function is called whenever there
    # is a GET request for this resource
    def get(self):

        return jsonify({'message': 'hello world'})

    # Corresponds to POST request
    def post(self):

        data = request.get_json()      # status code
        return jsonify({'data': data}), 201

# another resource to calculate the square of a number
class Square(Resource):

    def get(self, num):

        return jsonify({'square': num**2})

# adding the defined resources along with their corresponding urls
api.add_resource(Hello, '/')

```

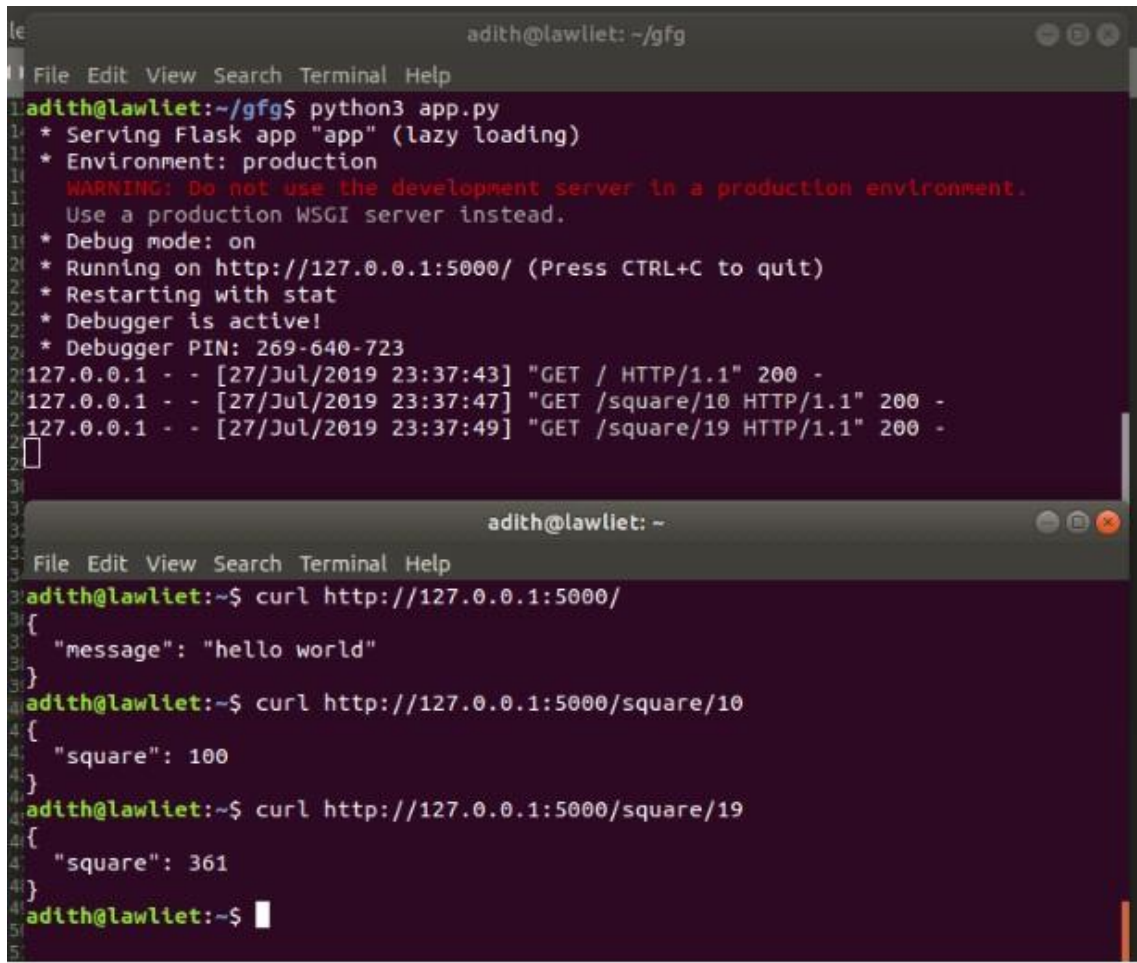
```
api.add_resource(Square, '/square/<int:num>')
```

```
# driver function
```

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

```
    app.run(debug = True)
```

Output:



```
adith@lawliet: ~/gfg
File Edit View Search Terminal Help
1 adith@lawliet:~/gfg$ python3 app.py
1 * Serving Flask app "app" (lazy loading)
1 * Environment: production
1 WARNING: Do not use the development server in a production environment.
1 Use a production WSGI server instead.
1 * Debug mode: on
2 * Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
2 * Restarting with stat
2 * Debugger is active!
2 * Debugger PIN: 269-640-723
2 127.0.0.1 - - [27/Jul/2019 23:37:43] "GET / HTTP/1.1" 200 -
2 127.0.0.1 - - [27/Jul/2019 23:37:47] "GET /square/10 HTTP/1.1" 200 -
2 127.0.0.1 - - [27/Jul/2019 23:37:49] "GET /square/19 HTTP/1.1" 200 -
2
3
3
3
3 adith@lawliet: ~
3 File Edit View Search Terminal Help
3 adith@lawliet:~$ curl http://127.0.0.1:5000/
3 {
3   "message": "hello world"
3 }
3
3 adith@lawliet:~$ curl http://127.0.0.1:5000/square/10
4 {
4   "square": 100
4 }
4
4 adith@lawliet:~$ curl http://127.0.0.1:5000/square/19
4 {
4   "square": 361
4 }
4 adith@lawliet:~$
```