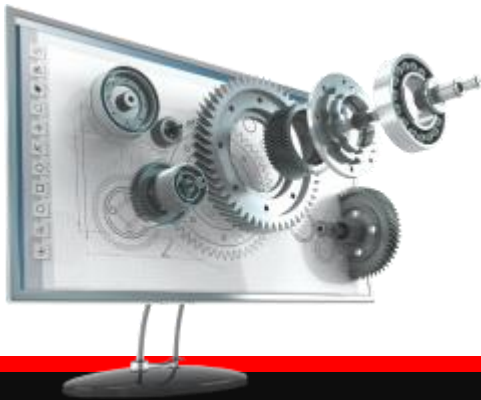




Python for Beginners

Archer Infotech , PUNE





Python – FLASK

What is Flask ?



Flask is a web framework, it's a Python module that lets you develop web applications easily.

It's has a small and easy-to-extend core: it's a microframework that doesn't include an ORM (Object Relational Manager) or such features.

Flask is known as a micro-framework because it is lightweight and only provides components that are essential. It only provides the necessary components for web development, such as routing, request handling, sessions, and so on



What is Flask ?



What is WSGI?

It is an acronym for web server gateway interface which is a standard for python web application development. It is considered as the specification for the universal interface between the web server and web application.

What is Jinja2?

Jinja2 is a web template engine which combines a template with a certain data source to render the dynamic web pages.



Flask Installation



Install virtual environment (virtualenv)

virtualenv is considered as the virtual python environment builder which is used to create the multiple python virtual environment side by side. It can be installed by using the following command.

```
$ pip install virtualenv
```

```
$ mkdir new
```

```
$ cd new
```

```
$ virtualenv venv
```

```
$ venv\scripts\activate
```

We can now install the flask by using the following command.

```
$ pip install flask
```



First Flask Installation



```
from flask import Flask

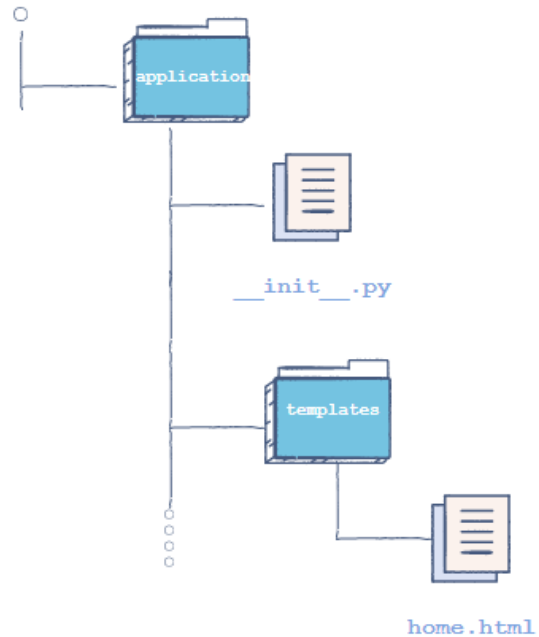
app = Flask(__name__) #creating the Flask class object

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

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



Rendering Templates



Module File Structure

```
from flask import *  
app = Flask(__name__)  
  
@app.route('/')  
def message():  
    return render_template('message.html')  
if __name__ == '__main__':  
    app.run(debug = True)
```



Flask HTTP Methods



```
<html>
<body>
  <form action = "http://localhost:5000/login" method = "post">
    <table>
      <tr><td>Name</td>
      <td><input type = "text" name = "uname"></td></tr>
      <tr><td>Password</td>
      <td><input type = "password" name = "pass"></td></tr>
      <tr><td><input type = "submit"></td></tr>
    </table>
  </form>
</body>
</html>
```

```
from flask import *
app = Flask(__name__)

@app.route('/login',methods = ['POST'])
def login():
    uname=request.form['uname']
    passwr=request.form['pass']
    if uname=="ayush" and passwr=="google":
        return "Welcome %s" %uname

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



Jinja



```
<html>
<head>
<title>Message</title>
</head>
<body>
<h1>hi, {{ name }}</h1>
</body>
</html>
```

```
from flask import *
app = Flask(__name__)

@app.route('/user/<uname>')
def message(uname):
    return render_template('message.html',name=uname)
if __name__ == '__main__':
    app.run(debug = True)
```

```
<html>
<head>
<title>print table</title>
</head>
<body>
<h2> printing table of {{n}}</h2>
{% for i in range(1,11): %}
    <h3>{{n}} X {{i}} = {{n * i}} </h3>
{% endfor %}
</body>
</html>
```



Jinja



```
<html>
<head>
<title>Message</title>
</head>
<body>
<h1>hi, {{ name }}</h1>
</body>
</html>
```

```
from flask import *
app = Flask(__name__)

@app.route('/user/<uname>')
def message(uname):
    return render_template('message.html',name=uname)
if __name__ == '__main__':
    app.run(debug = True)
```

```
<html>
<head>
<title>print table</title>
</head>
<body>
<h2> printing table of {{n}}</h2>
{% for i in range(1,11): %}
    <h3>{{n}} X {{i}} = {{n * i}} </h3>
{% endfor %}
</body>
</html>
```



Referring static files in html



```
<html>
<head>
  <title>Message</title>
  <link rel="stylesheet" href="{{ url_for('static', filename='css/style.css') }}">
</head>

<body>
  <h1>hi, welcome to the website</h1>
</body>
</html>
```





THANK YOU !!!

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