

Installation

```
$> pip3 install flask
```

Create a venv

```
$> python3 -m venv venv  
$> venv/bin/activate  
(venv) $>
```

Directory Structure

```
project_dir/  
  templates/  
    index.html  
  app.py  
  venv/
```

Minimum Code

```
from flask import Flask  
  
app = Flask(__name__)  
  
@app.route('/')  
def index():  
    return 'Hello, World!'  
  
if __name__ == '__main__':  
    app.run(debug=True)
```

Rendering Templates

```
from flask import render_template  
  
#without parameters  
@app.route('/')  
def index():  
    return render_template('index.html')  
  
#with parameters  
@app.route('/greeting')  
def greeting():  
    msg = 'Hello'  
    return render_template('greeting.html',msg = msg)
```

Routing with parameter

```
# website.com/YoungWonks  
@app.route('/<name>')  
def index(name):  
    # returns Hello Youngwonks!  
    return 'Hello ' + name + '!'
```



Request Methods

```
#only allows GET requests
@app.route('/home')

#allows only GET and POST.
@app.route('/home', methods=['GET', 'POST'])

#allows all 4 methods
@app.route('/home', methods=['GET', 'POST', 'PUT', 'DELETE'])
```

Access Request Data

```
#request type
request.method

#query get parameters
request.args['name']

#form data
request.form['name']

#files
request.files['name']
```



Redirect

```
from flask import render_template, redirect

@app.route('/', methods = ['GET', 'POST'])
def index():
    if request.method == 'GET':
        return render_template('index.html')
    elif request.method == 'POST':
        print(request.form)
        #perform database operation
        return redirect('/')
```



Session

```
from flask import session

#Required for using sessions
app.config['SECRET_KEY'] = 'any random string'
#set session
@app.route('/login', methods = ['GET', 'POST'])
def login():
    if request.method == 'GET':
        return render_template('login.html')
    elif request.method == 'POST':
        email = request.form['email']
        password = request.form['password']
        #check if user exists
        #verify password
        if login_success:
            #stores a secure cookie in browser
            session['email'] = email
            return redirect('/home')
        else:
            return redirect('/login')
#read session
@app.route('/home')
def home():
    #Check if valid session
    if 'email' in session:
        email = session['email']
    else:
        #session does not exist
        return redirect('/login')
```