

#Barebones App

```
from flask import Flask

app = Flask(__name__)

@app.route('/hello')
def hello():
    return 'Hello, World!'

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

#Routing

```
@app.route('/hello/<string:name>') # example.com/hello/Anthony
def hello(name):
    return 'Hello ' + name + '!' # returns hello Anthony!
```

#Allowed Request Methods

```
@app.route('/test') #default. only allows GET requests
@app.route('/test', methods=['GET', 'POST']) #allows only GET and POST.
@app.route('/test', methods=['PUT']) #allows only PUT
```

#Configuration

```
#direct access to config
app.config['CONFIG_NAME'] = 'config value'
```

```
#import from an exported environment variable with a path to a config file
app.config.from_envvar('ENV_VAR_NAME')
```

#Templates

```
from flask import render_template
```

```
@app.route('/')
def index():
    return render_template('template_file.html', var1=value1, ...)
```

#JSON Responses

```
import jsonify

@app.route('/returnstuff')
def returnstuff():
    num_list = [1,2,3,4,5]
    num_dict = {'numbers': num_list, 'name': 'Numbers'}

    #returns {'output': {'numbers': [1,2,3,4,5], 'name': 'Numbers'}}
    return jsonify({'output': num_dict})
```

#Access Request Data

```
request.args['name'] #query string arguments
request.form['name'] #form data
request.method #request type
request.cookies.get('cookie_name') #cookies
request.files['name'] #files
```

#Redirect

```
from flask import url_for, redirect

@app.route('/home')
def home():
    return render_template('home.html')
```

```
@app.route('/redirect')
def redirect_example():
    return redirect(url_for('index')) #sends user to /home
```

#Abort

```
from flask import abort()

@app.route('/')
def index():
    abort(404) #returns 404 error
    render_template('index.html') #this never gets executed
```

#Set Cookie

```
from flask import make_response

@app.route('/')
def index():
    resp = make_response(render_template('index.html'))
    resp.set_cookie('cookie_name', 'cookie_value')
    return resp
```

#Session Handling

```
import session

app.config['SECRET_KEY'] = 'any random string' #must be set to use sessions

#set session
@app.route('/login_success')
def login_success():

    session['key_name'] = 'key_value' #stores a secure cookie in browser

    return redirect(url_for('index'))

#read session
@app.route('/')
def index():

    if 'key_name' in session: #session exists and has key
        session_var = session['key_value']
    else: #session does not exist
```

#Useful Plugins

Flask-PyMongo - <http://readthedocs.org/docs/flask-pymongo/>
Flask-SQLAlchemy - <http://pypi.python.org/pypi/Flask-SQLAlchemy>
Flask-WTF - <http://pythonhosted.org/Flask-WTF/>
Flask-Mail - <http://pythonhosted.org/Flask-Mail/>
Flask-RESTful - <https://flask-restful.readthedocs.org/>
Flask-Uploads - <https://flask-uploads.readthedocs.org/en/latest/>
Flask-User - <http://pythonhosted.org/Flask-User/>
Flask-Login - <http://pythonhosted.org/Flask-Login/>

#Useful Links

Flask Website - <http://flask.pocoo.org>
Pretty Printed Website - <http://prettyprinted.com>
Pretty Pretty YouTube Channel - <https://www.youtube.com/c/prettyprintedtutorials>