Flask Cheat Sheet & Quick Reference

Flask App

```python
from flask import Flask

app = Flask(__name__)
@app.route("/")
def index():
    return "Hello Welcome to Flask"

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

Flask Routing

```python
@app.route("/users)              #-> microbrains.com/users
@app.route("/users/<username>")  #-> microbrains.com/users/steve
#@app.route("/users/<string:username>")
def index(username):
    return "User is " + username

#types - string(default), int, float, path, uuid
```

Templates

```python
from flask import render_template

@app.route('/')
def contact_render():
    return render_template('page-content.html',
        variable=value, ....)
```

Configuration

```python
app.config['CONFIG_NAME'] = 'Conf. Value'
app.config.from_envvar('variable_name')
```

Accessing Request

```python
from flask import request

query_string = request.args["q"]              # query string
form_user = request.form["user"]              # form data
http_method = request.method                  # get requested method
req_headers = request.headers                 # all req. header info.
acc_header = request.headers["Accept"]        # specific req. header
note = request.files['notes']                 # get uploaded files
```

Allowed methods

```python
@app.route("/login", methods=['GET', 'POST'])
def login():
    if request.method == 'GET':
        return render_template("login.html")
    elif request.method == 'POST':
        return request.form["user"] + request.form["pass"]
```

Redirect

```python
from flask import redirect, url_for

@app.route('/load/<pid>', defaults={'pid': 0})
def handle_data(pid):
    return 'Data Id #{}'.format(pid)

@app.route('/red')
def change_resp():
    return redirect(url_for('handle_data', pid=10))
```

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Setting Response

```python
@app.route('/check')
def make_error():
    #creates gateway time
    return "this is a plain text", 505


@app.route('/change')
def change_resp():
    return "this is a plain text", 200, {
        'Content-Type': 'text/plain'}

from flask import make_response

@app.route('/make/response')
def make_resp():
    response = make_response('<txt>XML Node Created</txt>', 201)
    response.headers['Content-Type'] = 'application/xml'
    response.headers['Access-Control-Allow-Origin'] = '*'
    return response
```

JSON Response

```python
from flask import jsonify

@app.route('/json')
def users_json():
    data = {"message": "OK", "status": 1}
    return jsonify(data)


@app.route('/reply/json')
def users_json_content_type():
    return '{"message": "OK", "status": 1}', 200, {
        'Content-Type': 'application/json'}
```

Abort

```python
@app.route('/check')
def make_error():
    #making error with status code & message
    abort(504)
```

Error Handling

```python
@app.errorhandler(404)
def handler_404(e):
    #render own template & set headers
    return "requested page not found", 404
```

Cookie Handling

```python
response = make_response("")
#set_cookie(key, value='', max_age=None, expires=None,
    path='/', domain=None, secure=None, httponly=False)
response.set_cookie('name', 'value', max_age=60) #set cookie
request.cookies.get('auth_user')    # cookie by name
request.cookies['auth_user']    # cookie by name
request.cookies #All cookies
```

Session Handling

```python
from flask import session
app.config["SECRET_KEY"] = "<your secret key>"

session['key'] = 'value'    # create session key
if 'key' in session:
    variable = session['key']    #get session value

del session['key'] #delete session key
session.clear() #removes session completely
```