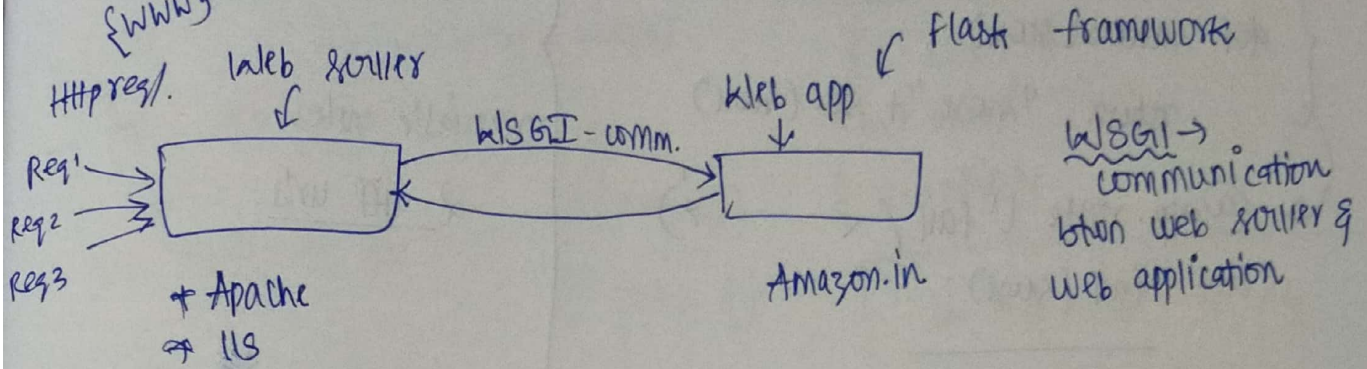


Flask → Armin Ronacher → Pocco → WSGI which Jinja & template engine.

* Web Framework in python → web apps, web API, ml projects

1. WSGI (Web Server Gateway Interface) → standard/protocol.

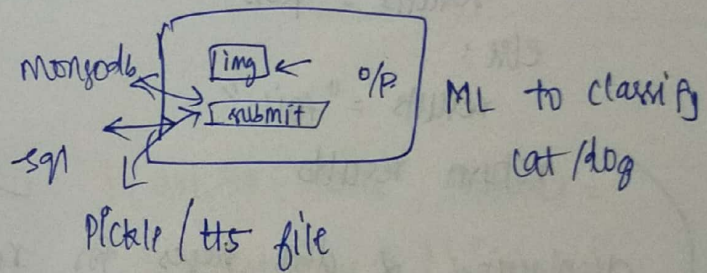
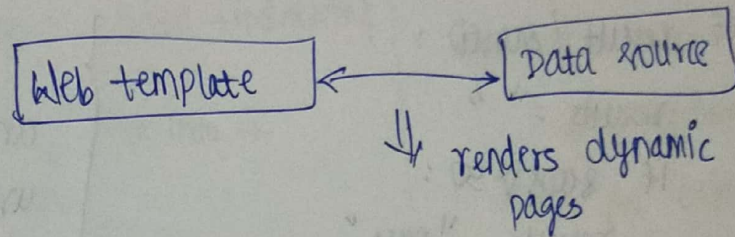


2. Jinja & :: template engine / web templating sys.

starting Vscode

Anaconda cmd:

cd → location
activate env
code.



@app.route('/') decorator
↳ rule, options

def fn():
↳ fn. triggered

WSGI
decorators

```
from flask import Flask
app = Flask(__name__) #WSGI app

@app.route('/')
def welcome():
    return "Hello!"
} # decorator

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

Plp install → requirements.txt

app.run() → 4 parameters

* host
* port
* debug

Building url dynamically → variable rules
→ url building

```
@app.route('/')  
def fn():
```

```
@app.route('/success/<int: score>')  
def success(score):  
    return 'score' + str(score)
```

```
@app.route('/fail/<int: score>')  
def fail(score):
```

variable rules
2 diff urls.

```
@app.route('/results/<int: score>')  
def result(score):
```

```
    results = ""  
    if score > 50:  
        results = "pass"  
    else:  
        results = "fail"  
    return results
```

url /results/50 ⇒ pass
url /results/45 ⇒ fail

displaying 2 diff pages for results

redirect → success, url-for
→ fail

```
return redirect(url_for('results', score=score))
```

Integrating html with flask

```
render-template, request →  
@app.route('/')  
def fn():  
    return render_template('index.html')
```

read the posted value

Create templates folder
↳ templates
index.html

using inja & template engine

html → {{ Result }}

3 techniques

→ { % % } for "statements"

→ {{ }} for printing output

→ {# . . . #} comments



not visible in o/p.

{{ key }}

{{ value }}

don't write condition in app.py
in html page

<body>

{% if result >= 50 %}

<hr> passed </hr>

{% else %}

<hr> failed </hr>

{% endif %}

Integrating CSS & JS with Flask

* <style> . . . </style> ⇒ html → index.html

same file →

↓ create static folder

static → CSS → style.css

paste into it

index.html

<html> <head>

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

integrating from external file

JS → <script>

alert("this page is loaded")

</script>

} index.html

paste into it

same file

static → script → script.js

index.html

<link ->

<script type="text/javascript" src="{{ url_for('static', filename = 'script/script.js') }}">

integrating from external file

url_for('static', filename='script/script.js')

Video streaming using Webcam in Flask

Response

pip install opencv-python

Response (fn(), mimetype = "1")

case study → Face & Eye detection opencv
 → Face recognition