

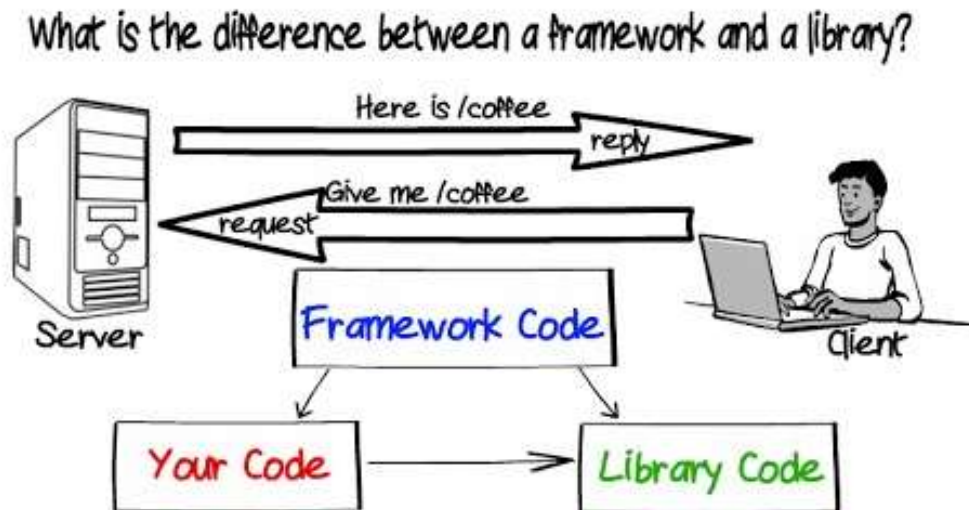
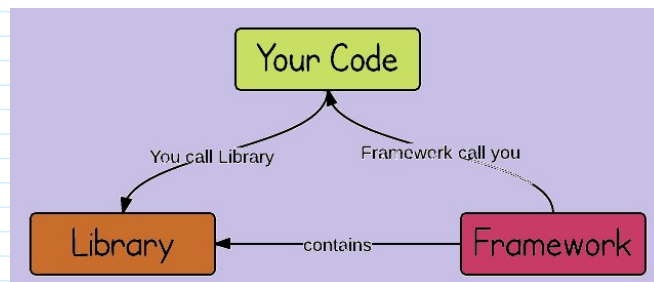
Python Frameworks: Flask, Django, Pyramid, Web2py, SciPy, Tornado, Pylons, Bottle, Falcon, FastAPI, DASH, etc.

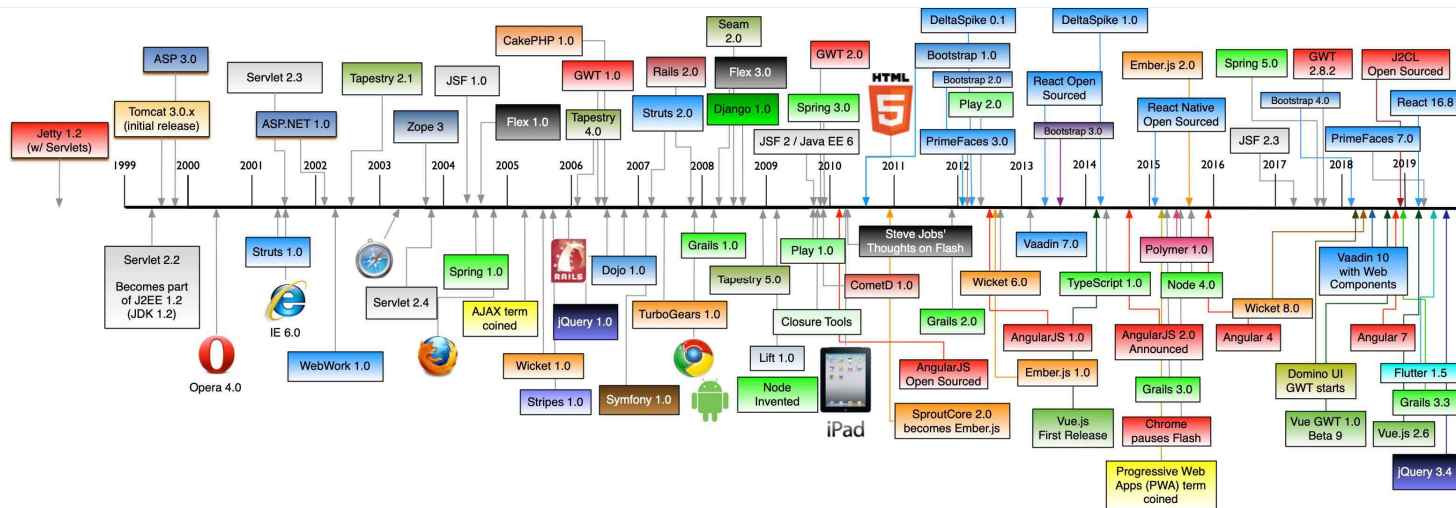
Framework:

- Used for **building & deploying** an application quickly.
- To Facilitate faster **development** & a greater UX.
- Way of life your application.

Library:

- **Enhance Functionality** of an Application.
- Specific, well-defined operations.
- TOOL





Java --> Hibernate: ORM Framework
 Java --> Spring Boot: Web Framework

Python --> SqlAlchemy: ORM Framework
 Python --> Flask/Django : Web Framework

ORM- Object Relational Mapping

N-Tier Application:

UI --> Web F/W --> ORM --> DB

Task: Create Web Application using Python Flask

- 1) Install Python 3.X & Package Manager(PIP)
 - a. Windows Check: `$ python --version`
 - b. Windows Check: `$ pip --version`
 - c. Linux/Mac: `$ python3 --version`
 - d. Linux/Mac: `$ pip3 --version`
- 2) Set in Environment Variables: **Python** and **Scripts** Folders
- 3) Make it Available **virtualenv** Package.
 - a. `$ pip install virtualenv`
 - b. `$ pip show virtualenv`
- 4) Create & Activate Virtual Environment
 - a. `$ virtualenv .env` | `$ python -m virtualenv .env`
 - b. Windows: `$.env\Scripts\activate`
 - c. Mac/Linux: `$ source .env/bin/activate`
- 5) Install All Requirements(Packages)
 - a. Create requirements.txt
 - b. Save All Package Names:


```
Flask
Flask-RESTful
```
 - c. `$ pip install -r requirements.txt`
- 6) Execute Python Flask Program
 - a. Create App.py `$ notepad app.py`
 - b. Write Code:


```
from flask import Flask, jsonify, request
app = Flask(__name__)
```

```
@app.route('/hello', methods=['GET'])
def helloworld():
    if(request.method == 'GET'):
        data = {"data": "Hello World"}
```

```
        return jsonify(data)
    if __name__ == '__main__':
        app.run(debug=True)
c. Save --> Close
d. $ python app.py
```