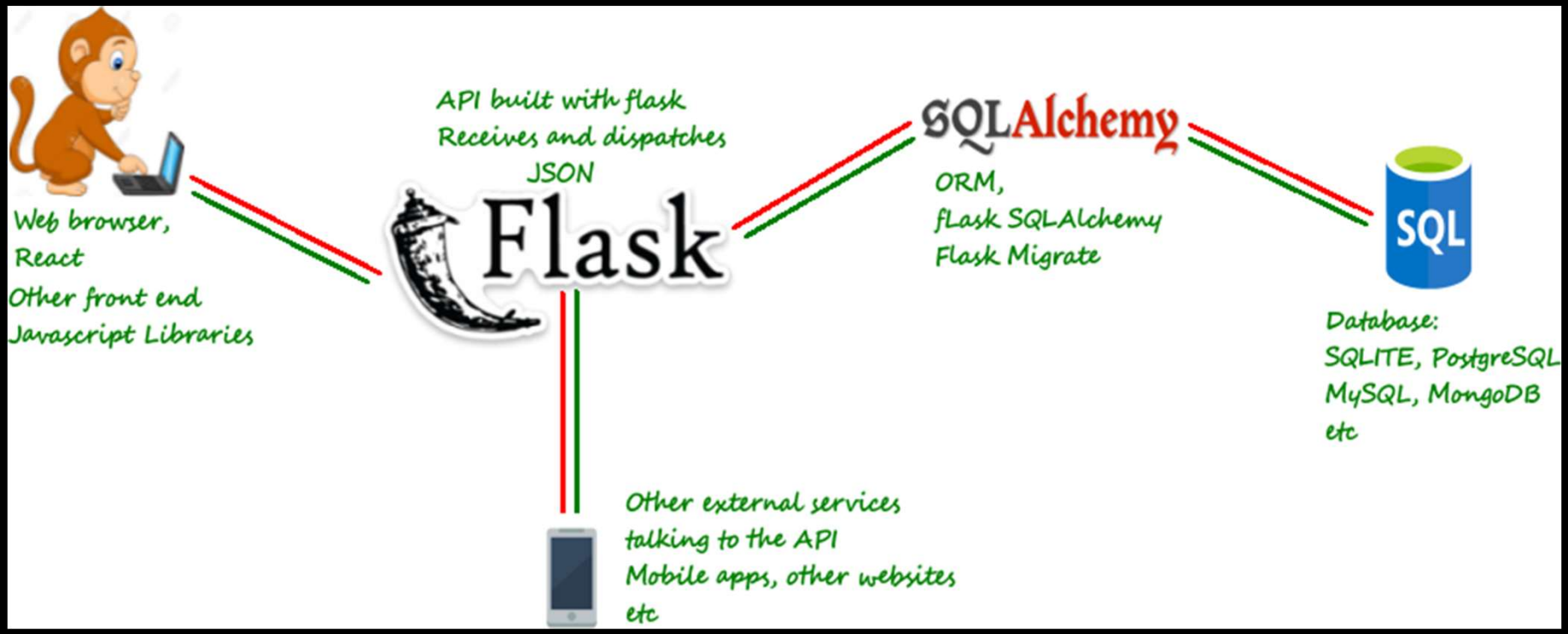
RECAP

APPLICATION TIER
PYTHON FLASK



FLASK RESTAPI COMPLETE OVERVIEW

TYPICALL CLEINTS OFF APPLICATION TIER [FLASK REST API]

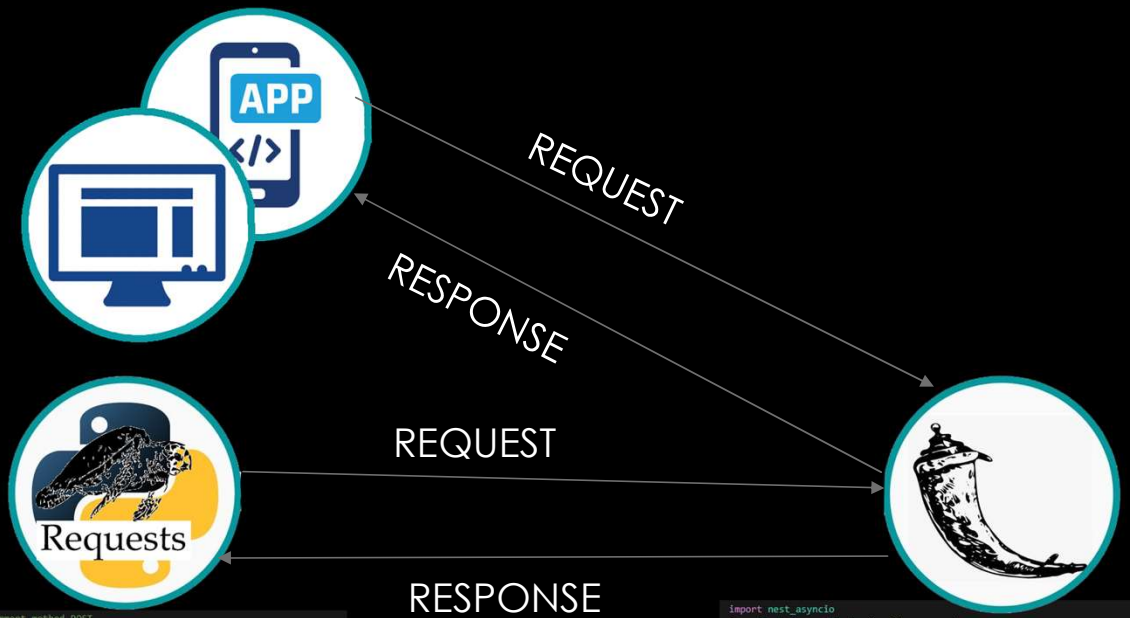
- **WEB APPLICATION [EITHER FROM SELF PHONES OR PC'S]**
- **SELF PHONE APPLICATIONS**
- **OTHER APPLICATION TIERS [BACKEND APPLICATIONS]**

BUT HOW TO TEST THE APPLICATION TIER DURING DEVELOPMENT ?

END TO END TESTING OF APPLICATION TIER [FLASK REST API]

1. PYTHON REQUESTS LIBRARY
2. SWAGGER
3. POSTMAN

FLASK RESTAPI




```python
# create comment /comment method POST
comment_post_url = f"{BASE_URL}/comment"
comment_payload =  {"id": 3, "content": "some", "post_id": 1}

response = requests.post(url=comment_post_url, json=comment_payload)

status_code = response.status_code

if status_code == HTTPStatus.BAD_REQUEST:
    display(response.json())

if status_code == HTTPStatus.CONFLICT:
    display(response.json())

if status_code == HTTPStatus.CREATED:
    display(response.json())
```

```python
# get posts /comment method GET
comment_id = 3
comment_get_url = f"{BASE_URL}/comment/{comment_id}"

response = requests.get(url=comment_get_url)
```

```python
import nest_asyncio
from flask import Flask, jsonify, request
from werkzeug.serving import run_simple

nest_asyncio.apply()

app = Flask(__name__) # Application Tier app

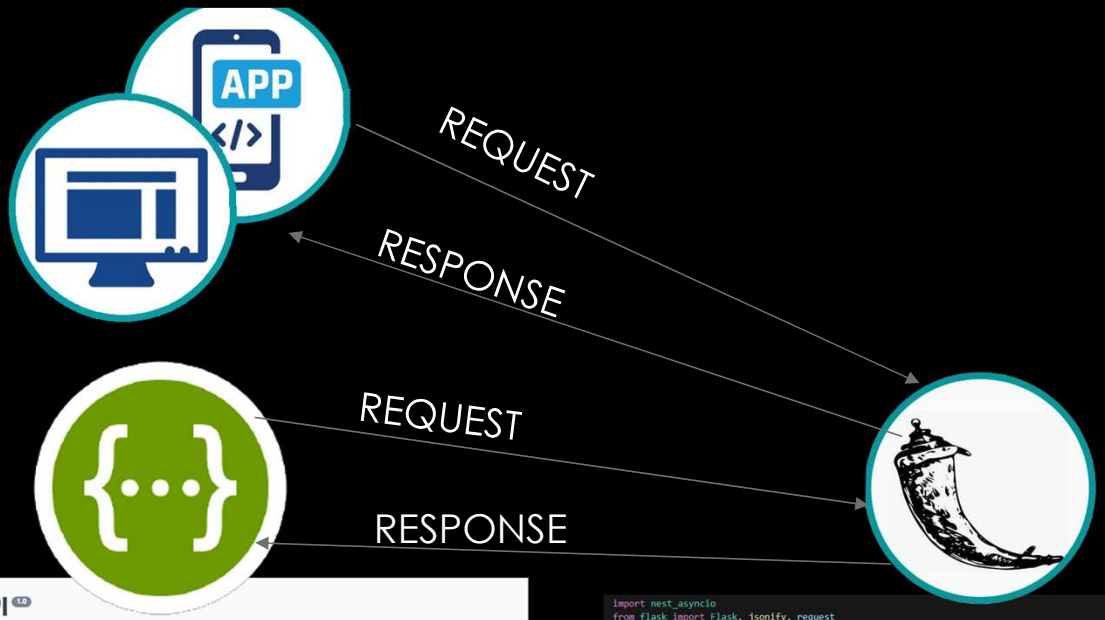
#http://localhost:5000/hello
@app.route("/hello", methods=["GET"])
def hello_world():
    message_data = {"message": "Hello, World!"}

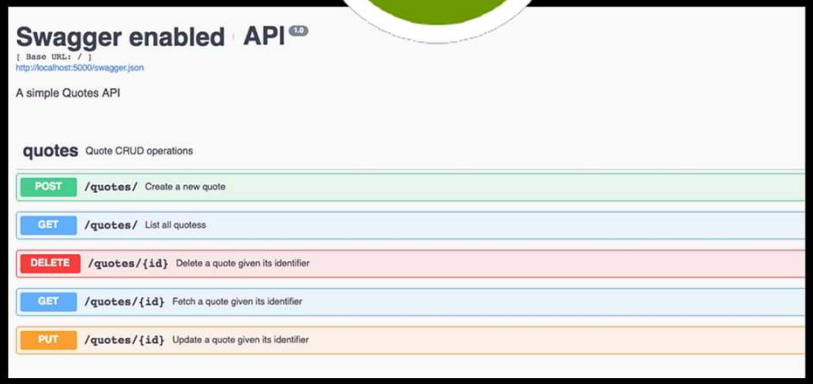
    return jsonify(message_data), 200 # data = {"message": "Hello, World!"} => jsonify(data) =  {\"message\": \"Hello, World!\"}

# http://localhost:5000/greet/adam => greet(name="adam") # we call this endpoint with path variable
@app.route("/greet/<string:name>", methods=["GET"])
def greet(name: str):
    message_data = {"message": f"Hello, {name}!"}
    return jsonify(message_data), 200# data = {"message": "Hello, World!"} => jsonify(data) =  {\"message\": \"Hello, Adam!\"}

# http://localhost:5000/query
# http://localhost:5000/query?name=adam
# http://localhost:5000/query?name=adam&age=37
@app.route("/query", methods=["GET"])
def query():
```

FLASK RESTX REST API



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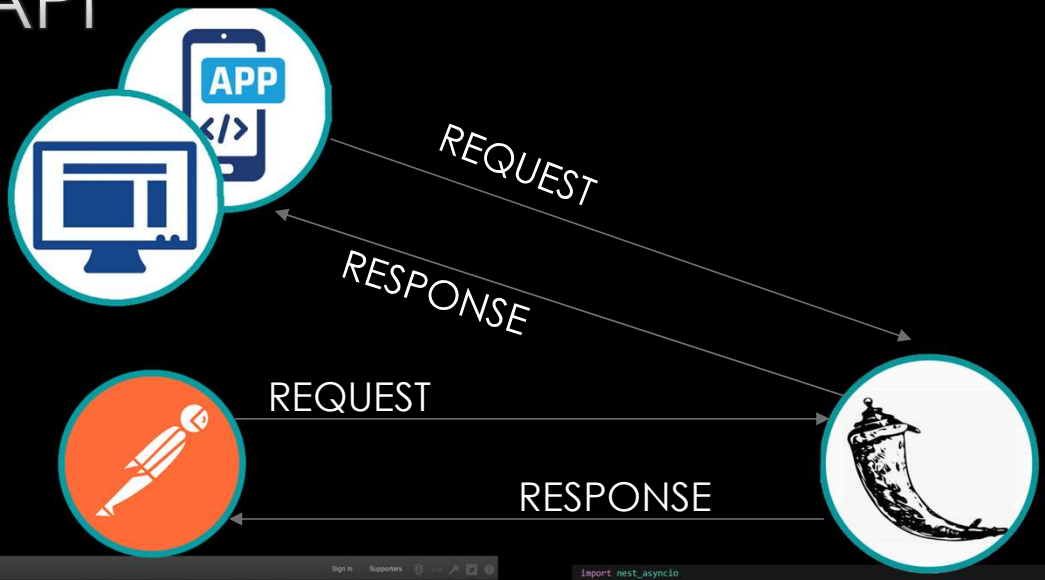
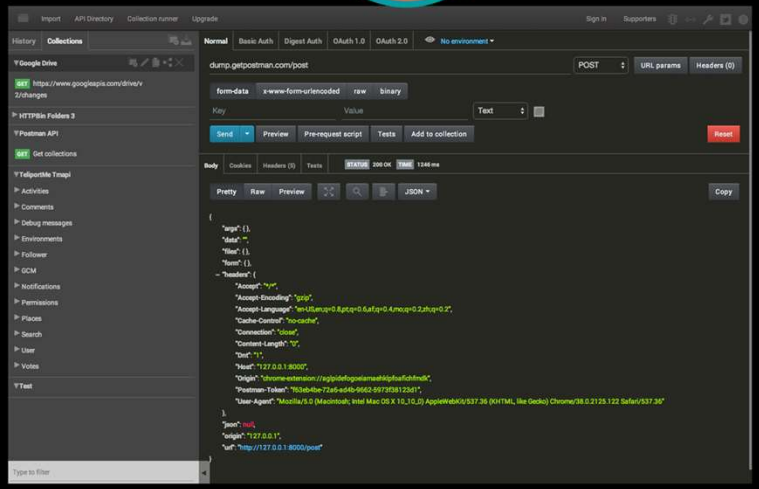
FLASK RESTAPI





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# http://localhost:5000/query
# http://localhost:5000/query?name=adam
# http://localhost:5000/query?name=adam&age=37
@app.route("/query", methods=["GET"])
def query():
    name = request.args.get("name", "Guest") # if name is none then name =  Guest
    age = request.args.get("age")

    data = {"message": f"Hello, {name}!"}

    if age: # if age is not none
        data = {"message": f"Hello, {name}! You are {age} years old."}

    return jsonify(data), 200
```