

APIs

↳ SOAP

REST

Socket

GRPC

GraphQL

REST

(HTTP verbs) + (URI)

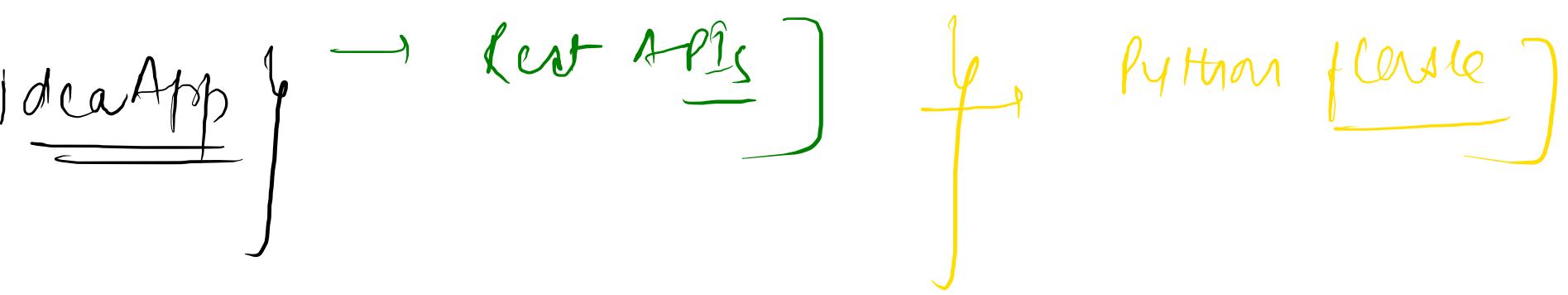
(POST/PUT/GET/DELETE)

Flask } → framework]

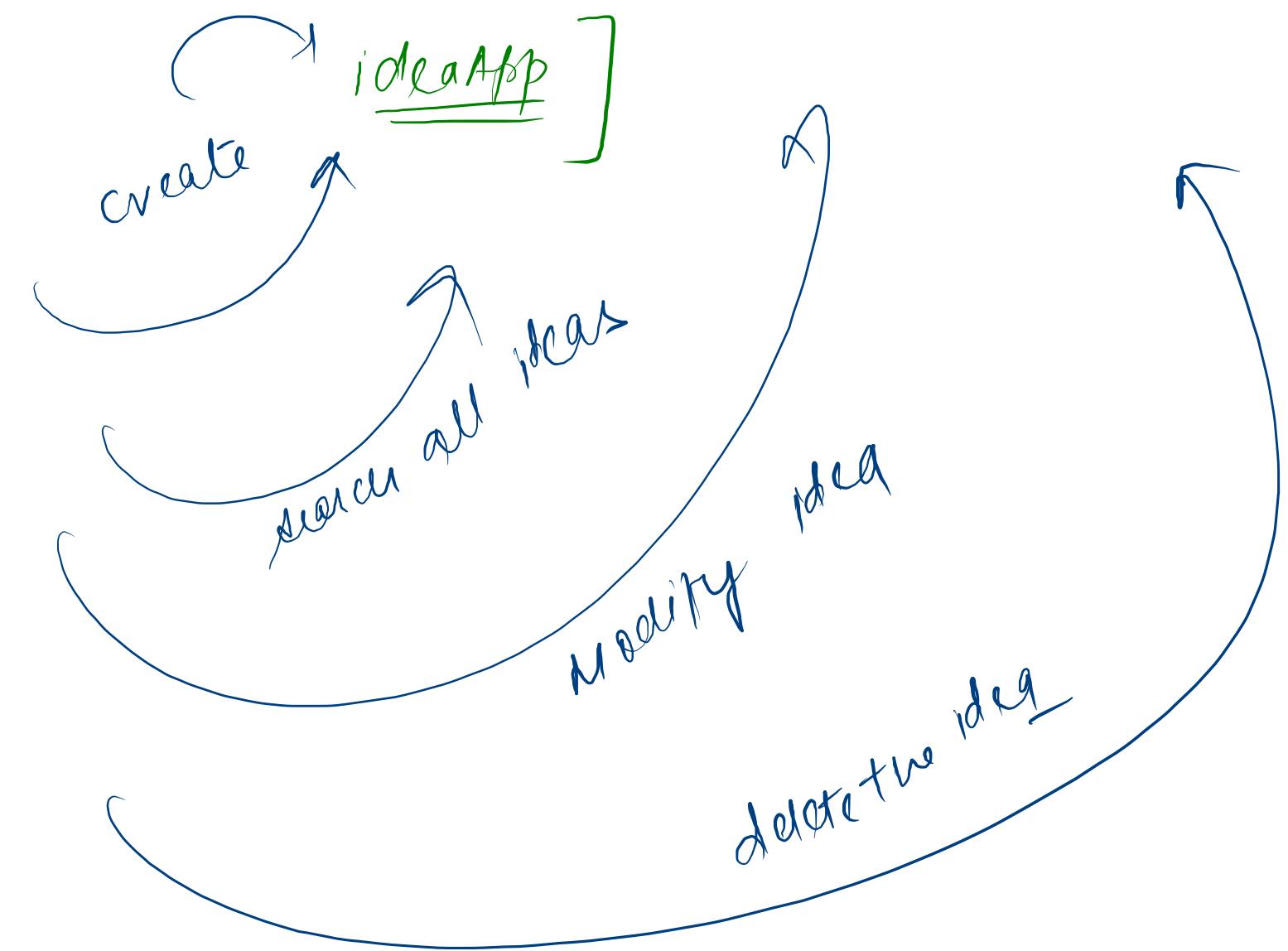
VSCode

↳ venv —

↳ pip install Flask —



Problem
statement :



① Create an idea

Restful URL : ?

create

POST 127.0.0.1:8080/ideaApp/api/v1/ideas

JSON

```
{ "id": 1,  
  "idea_name": "Great idea",  
  "idea_description": "Great description",  
  "idea_author": "Vishwa Man"}
```

Resource
↓ Data
Name

127.0.0.1

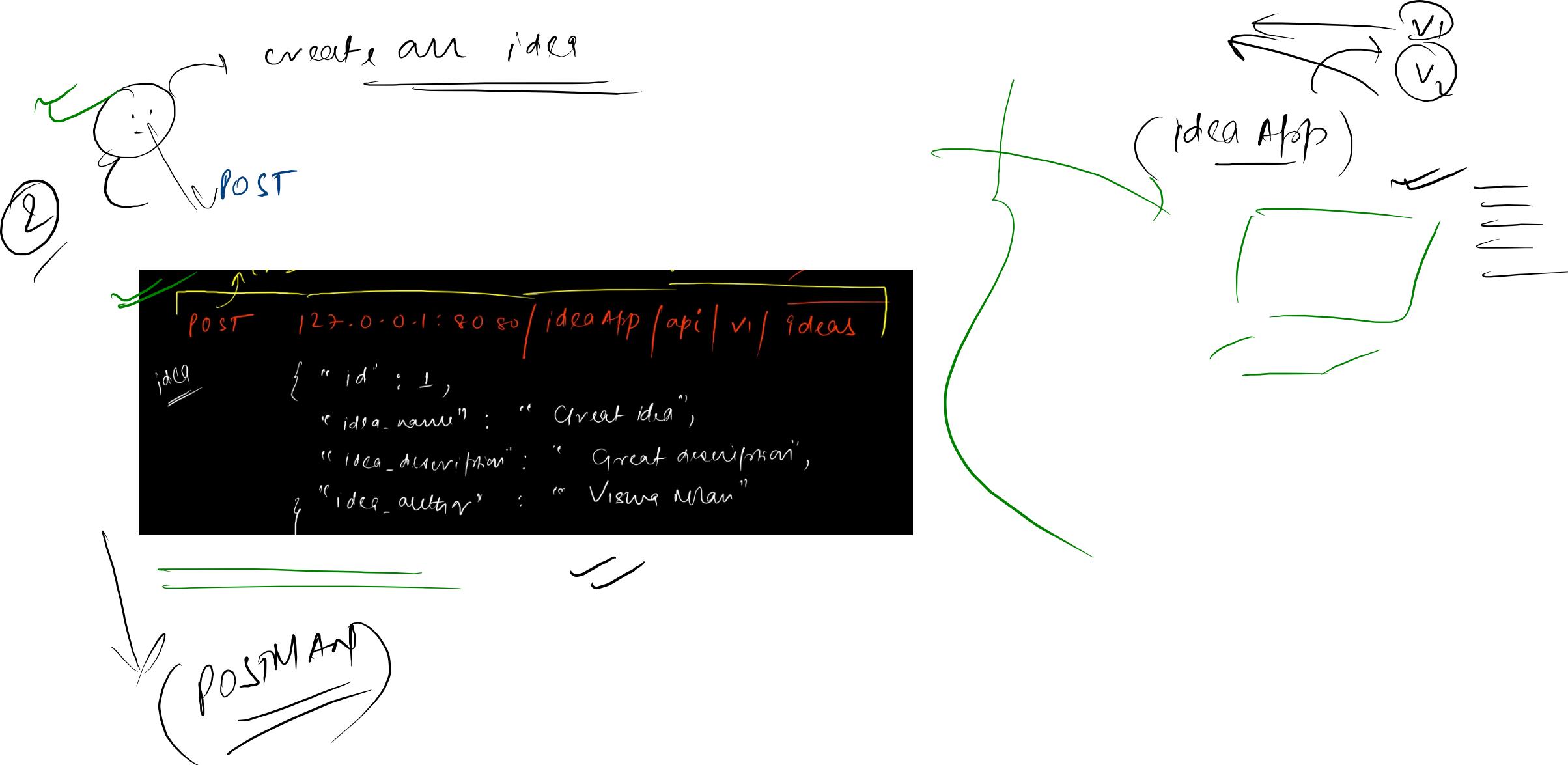
real host

ideaApp

8080

POST 127.0.0.1:8080/ideaApp/api/v1/ideas

idea { "id": 1,
"idea_name": "Great idea",
"idea_description": "Great description",
"idea_author": "Viswa Man"}

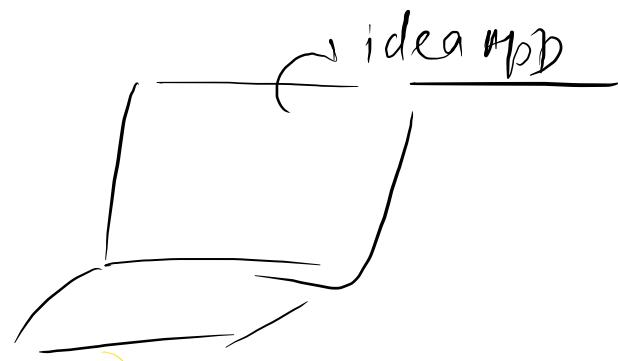


Q → list of all the ideas

①

✓ GET `127.0.0.1:8080/ideaapp/api/v1/ideas`

[list of all the ideas]



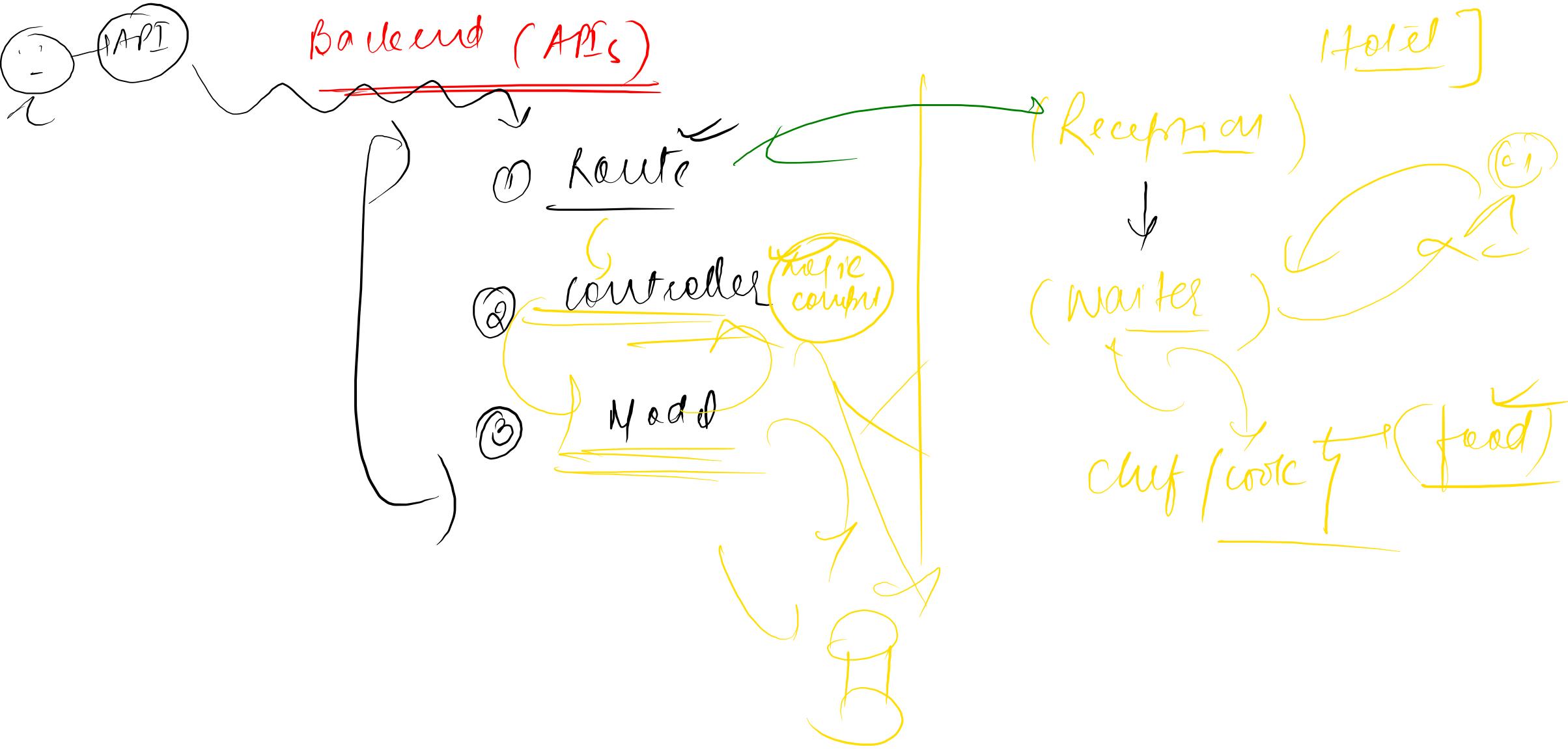
C → Create] POST

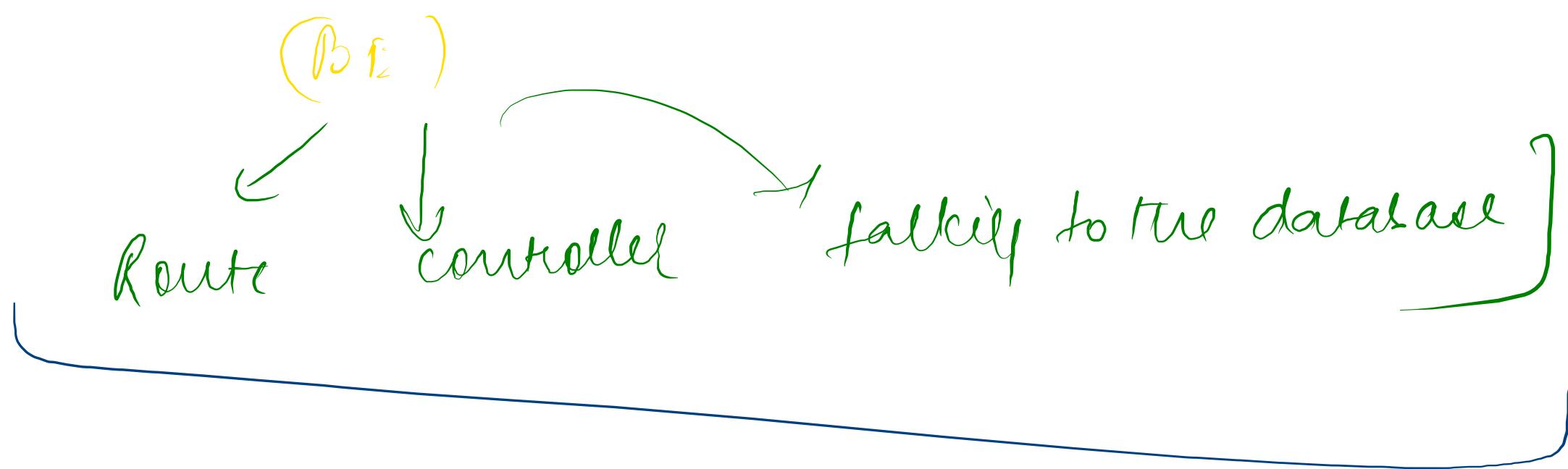
R → Read] GET

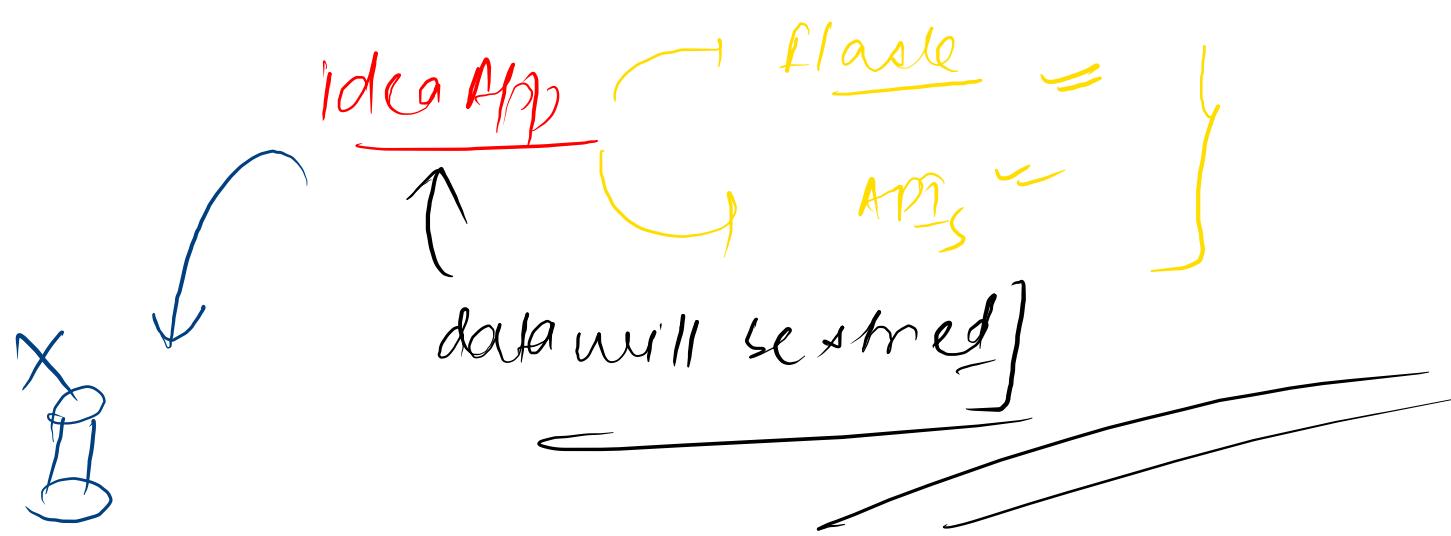
U → Update] PUT

D → Delete] DELETE

✓











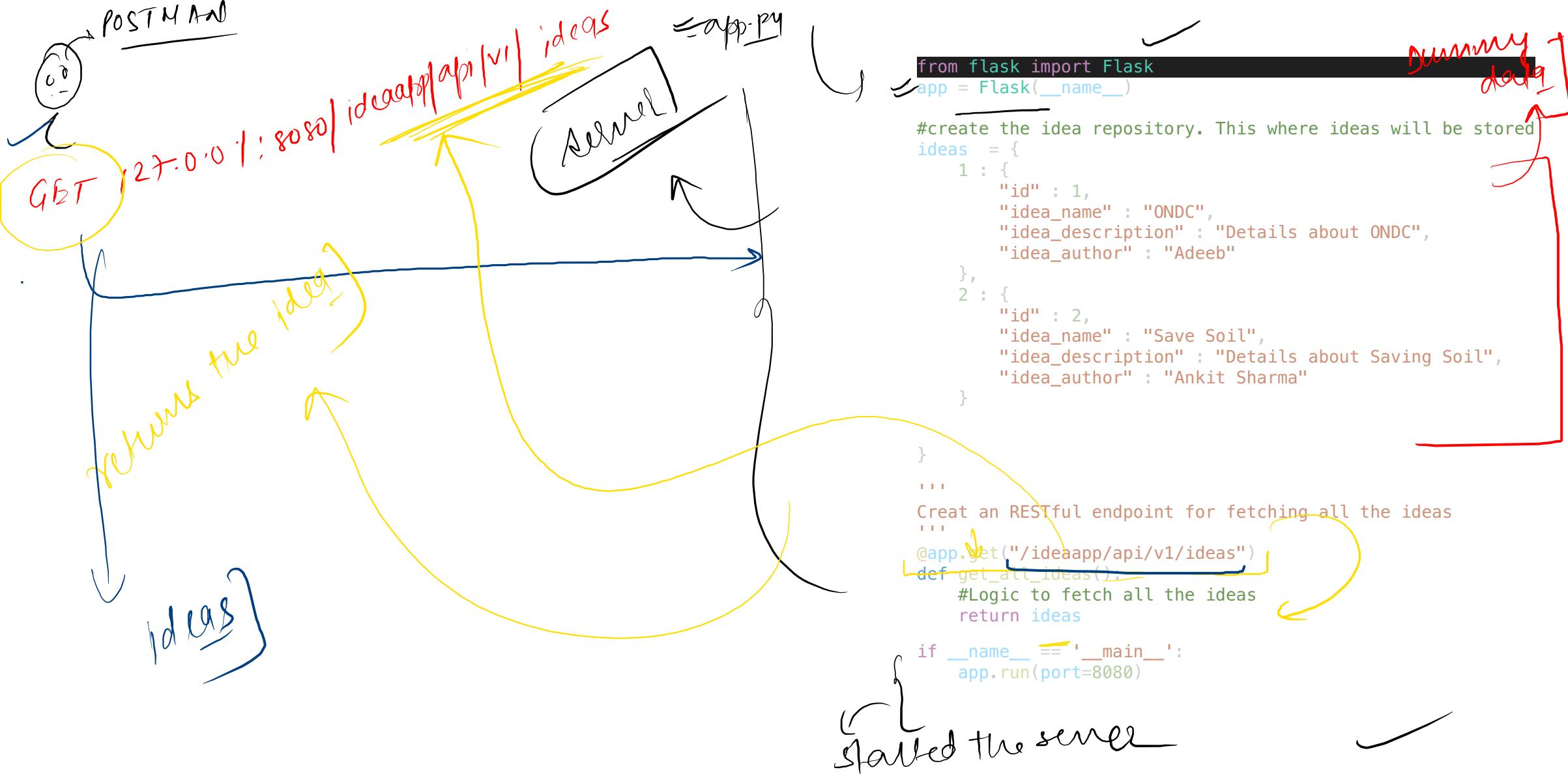
API call

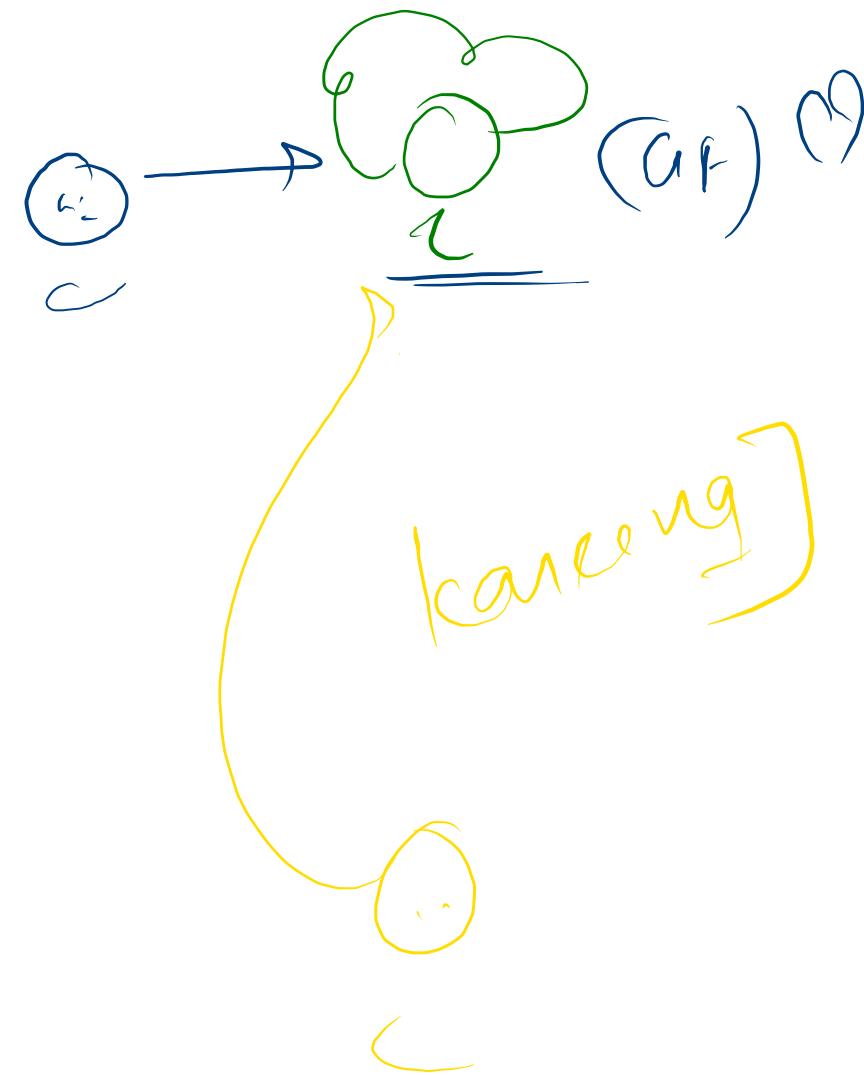


Handle serve
@app-set()

method

POSTMAN → Testing RESTful APIs





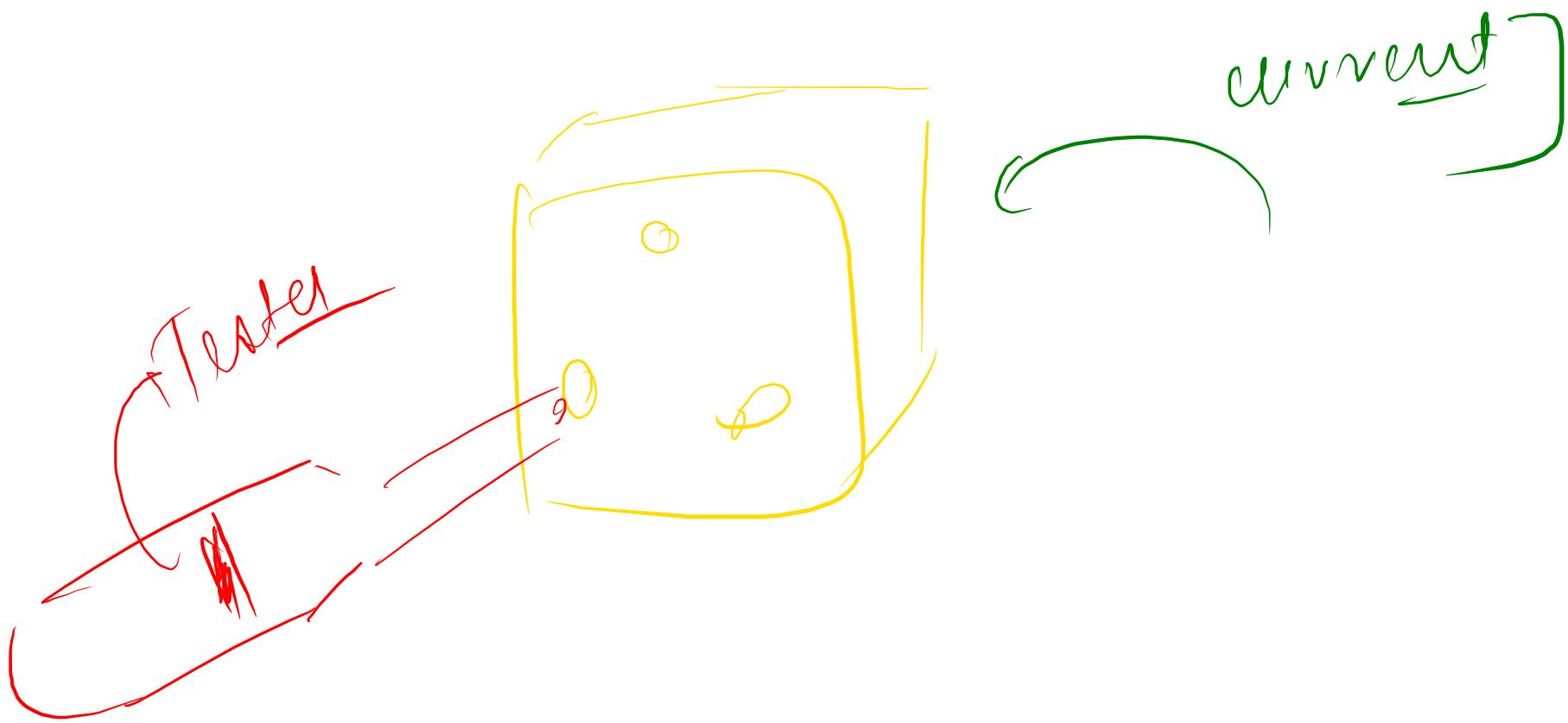
write code to create a new idea]

POST 127.0.0.1:8080/ideaapp/api/v1/ideas



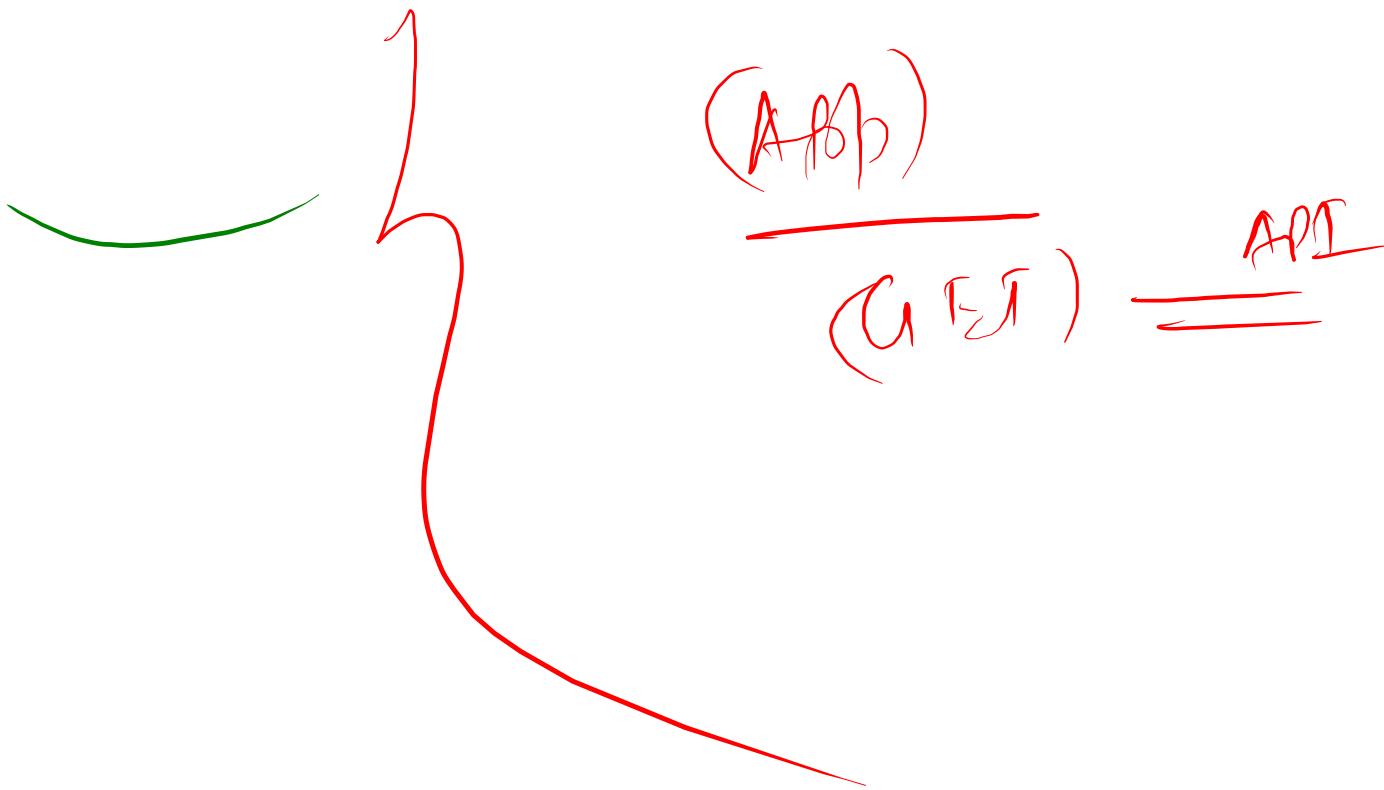
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.

* Running on <http://127.0.0.1:8080>

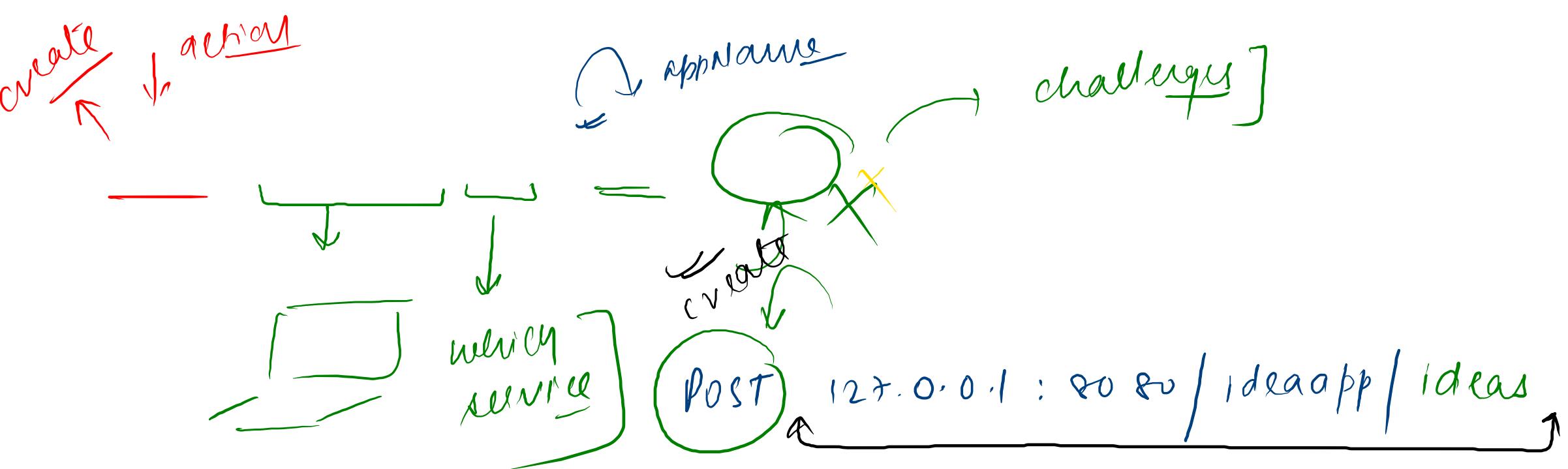


Program

GET ORI



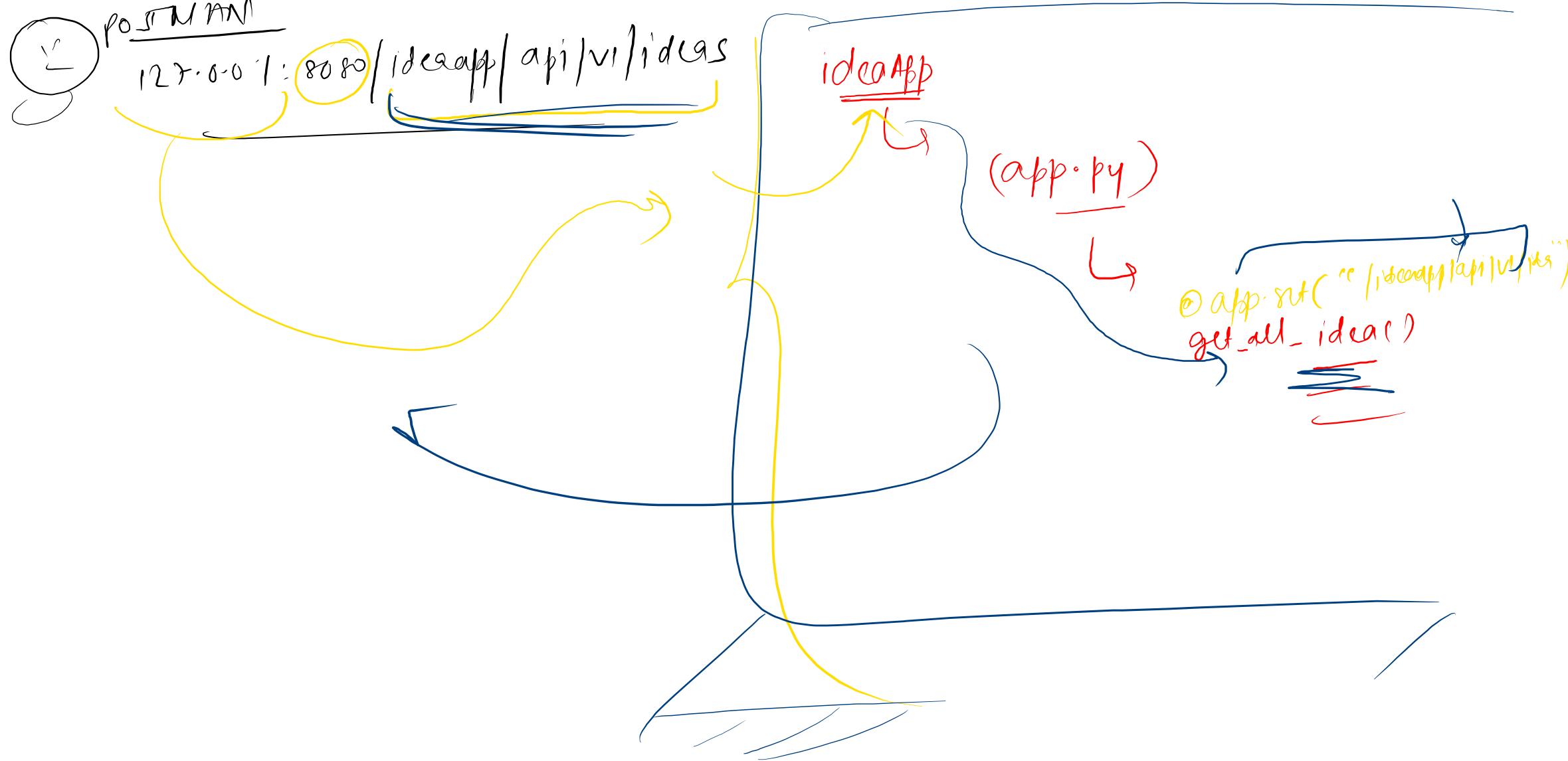
(APP)
—
(GET) == API



(ORI)

X verbs

Nouns → plural Nouns]



POST 127.0.0.1:8080/ideaapp/api/v1/ideas

You are screen sharing

Params Authorization Headers (8) Body Pre-request Script Tests Settings

none form-data x-www-form-urlencoded raw binary GraphQL JSON

```
1 {  
2     "id" : 4,  
3     "idea_author": "Vishwa",  
4     "idea_description": "AI and it's adoption",  
5     "idea_name": "AI"
```

Body Cookies Headers (5) Test Results Status: 201 CR

```
...  
Create a RESTful endpoint for creating a new idea  
...  
@app.post("/ideaapp/api/v1/ideas")  
def create_idea():  
    #logic to create a new idea  
    try:  
        #first read the request body  
        request_body = request.get_json()  
        #Check if the idea id passed is not present already  
        if request_body["id"] and request_body["id"] in ideas:  
            return "idea with the same id already present", 400  
  
        #Insert the passed idea in the ideas dictionary  
        ideas[request_body["id"]] = request_body  
  
        #return the response saying idea got saved  
        return "idea created and saved successfully", 201  
    except KeyError:  
        return "id is missing", 400  
    except:  
        return "Some internal server error", 500
```

- ① create an idea ✓
- ② fetch all ideas ↗

Fetch an idea based on idea id

③

ORT ↗ GF

GET 127.0.0.1:8080/ideaapp/api/v1/ideas?idea-author=vishnu

↑
Query param

Path param

→ takes you
to a specific resource

Query param

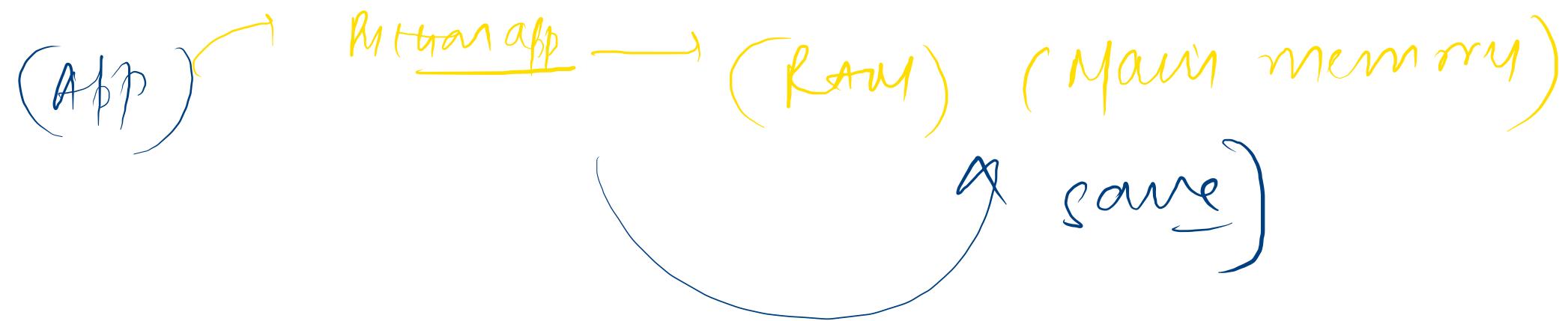
→ give you to a
filtered result

idea

GET 127.0.0.1:8080/ideas/app/api/v1/ideas/2
↓
specific idea]

| ideas ? author.name =
| Virginia

+
↓
list of filtered
ideas



✓ POST ↴ creat
GET ↴ all idea ✓
 filtered idea ↴ Query Param ✓
 Based on idea id ↴ path param ✓

Update an idea ↴
PUT ↪

Delete an Idea ↪
DELETE ↪

The screenshot shows the Postman application interface. At the top, the URL `127.0.0.1:8080/ideaapp/api/v1/ideas/1` is displayed with an **HTTP** icon. A yellow circle highlights the **PUT** method. Below the URL, another yellow circle highlights the same endpoint URL again. The interface includes tabs for **Params**, **Authorization**, **Headers (8)**, **Body** (selected), **Pre-request Script**, **Tests**, and **Settings**. Under the **Body** tab, there are options for **none**, **form-data**, **x-www-form-urlencoded**, and **raw** (selected). To the right of these options is a dropdown set to **JSON**. The **raw** section contains the following JSON payload:

```
1 {  
2     "id": 1,  
3     "idea_author": "AddeeB",  
4     "idea_description": "Details about ONDC_Is_updated",  
5     "idea_name": "ONDC"  
6 }
```

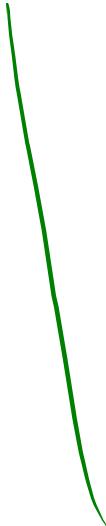
```
@app.put("/ideaapp/api/v1/ideas/<idea_id>")
def update_idea(idea_id):
    try:
        if int(idea_id) in ideas :
            ideas[int(idea_id)] = request.get_json()
            return ideas[int(idea_id)],200
        else :
            return "Idea id passed is not present",400
    except :
        return "Some internal error happened",500
```

Started

App

①

②



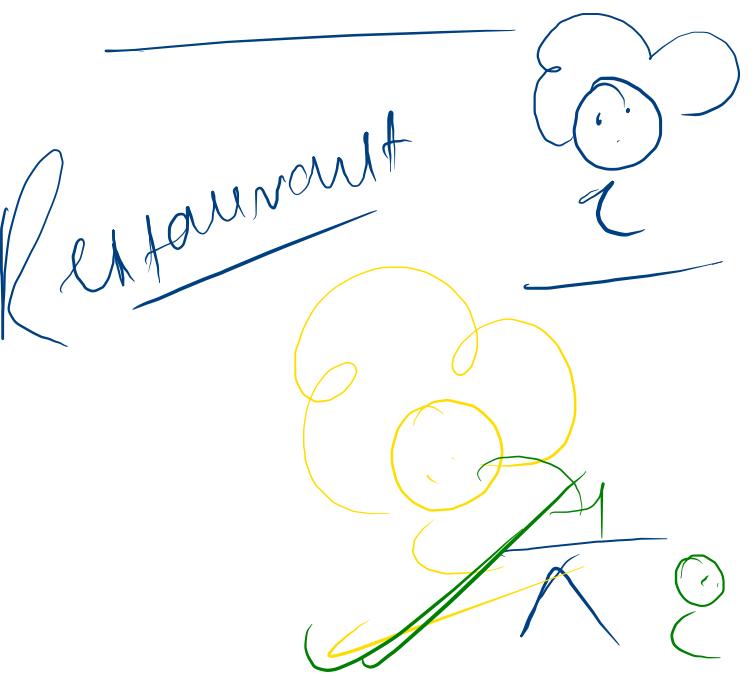
RAM

①

②

compute layer

RAM | Masson core



RE RE RE

