API --> Application Programming Interface

API acts as a interface between the two software that allows you to communicate with eachother.

APIs are a set of rules, protocols, and tools that define how software components should interact with each other.

Https method

they are lot methods in it but they are four main operation or methods in it

\*GET --> it is used to retrieve

\*POST --> it is used write a new data

\*PUT -->it is used to update or write the data

\*DELETE -->it is used to delete the data

To create the environment : python -m venv (file name)-> we use venv

or

To create the environment in vscode: ctrl+shift+p and then search environment file after that

change "select default profile" to cmd

TO install the fastapi in venv folder --> pip install fastapi[all] and to check whether it install or not type --> pip freeze ( It show's the type of package where install in venv)

then import the fast in format "from fastapi import FastAPI"

To run the code type --> "uvicorn filename:variable name(that store the fastapi)"

**Post**

To get or recieve the data from api from the server we need the variable to get the data from that we need the format of ( variable name : datatype = Body(…) )  
  
we can also return the value to the api server using format

**Pydantic**

* It is an libray which used for validation purpose and show the error if it occurred data not give in proper format
* We need to import the library “ from pydantic import BaseModel ”
* It can also check the different types of data types
* We can also print the specific data with the help of (.)dot operator
* Pydantic model is help us convert data in dict

**CRUD operations (@app🡪 is a fastapi reference variable)**

In the CRUD operation that standards for the Create, Read/Retrieve, Update, Delete.

**Create** 🡪 In the create we can post the data with the help of post

Syntax 🡪 @app.post(“/post”)

**Read/Retrieve 🡪** In the read we can get the data with the help of get

**Syntax 🡪** @app.get(“/post/{id}”) it help to retrieve the specific data with help of id that generated in it (or) we can simply want to get the all data from it we can use @app.get(“/post”)

**Update 🡪** In the update we can change the entire using put and we can change the specific data using patch

**Delete 🡪** In the delete we can delete the entire data or specific data

**Syntax🡪** @app.delete(“/post/{id}”) for specific data to delete

**Path parameter**

Path parameter is used to take the specific data using the id

for example :

@app.get(“/post/{id}”)

A screen shot of a computer code

Description automatically generated

Function for search:

A computer code with colorful text

Description automatically generated with medium confidence

Status code :

Status code is use to specific the type of error need to specific to do that we need to import the status\_code, status

Status\_code 🡪 is used to create the status error in the webpages

Status🡪 it will help to print the which code is needed

A computer screen shot of a code

Description automatically generated

If we need to run the api without using of postman is simple pass the address/docs or redoc