What is an API ?

- API stands for application programming language. It is used for taking requests and returning value for that requests using two main methods : GET and POST. However, besides this, there are a few more methods such as PUT, PATCH, DELETE

+ GET : to retrieve resource representation/information only. It is also known as "Safe Mode" of the resources. This method should be idempentent which means that when we retrieve information from the resources and have the same information but it doesn't make any changes to the resources until the POST or PUT methods are used for changing.

\* Note : HTTP GET API, if it is founded on the server, it must return HTTP response (200 - OK) which means in XML or JSON format

if it is not founded on the server (404 - Not found), it will return HTTP response (404 - BAD Request)

+ POST : to create new subordinate resources. if it is successful, it will return HTTP response(201 - OK). but if it doesn't cause any change (it is a URI), it may return (200 - OK or 204 - No content).

\*Note that : "Subordinate resources" means it is dependent to existing resources

+ PUT : to update existing resource. If it is new created successfully, it will return HTTP response (201 - OK). If it is modified, it should return HTTP response (200 - OK or 204 - No content)

+ PATCH : to make partial update on a resource

\*\* Note : PUT requests also modify a resource entity so to make more clear – PATCH method is the correct choice for partially updating an existing resource and PUT should only be used if you’re replacing a resource in its entirety.

for example :

HTTP GET /users/1

produces below response:

{id: 1, username: 'admin', email: 'email@example.org'}

A sample patch request to update the email will be like this:

HTTP PATCH /users/1

[

{ “op”: “replace”, “path”: “/email”, “value”: “new.email@example.org” }

]