WHAT IS

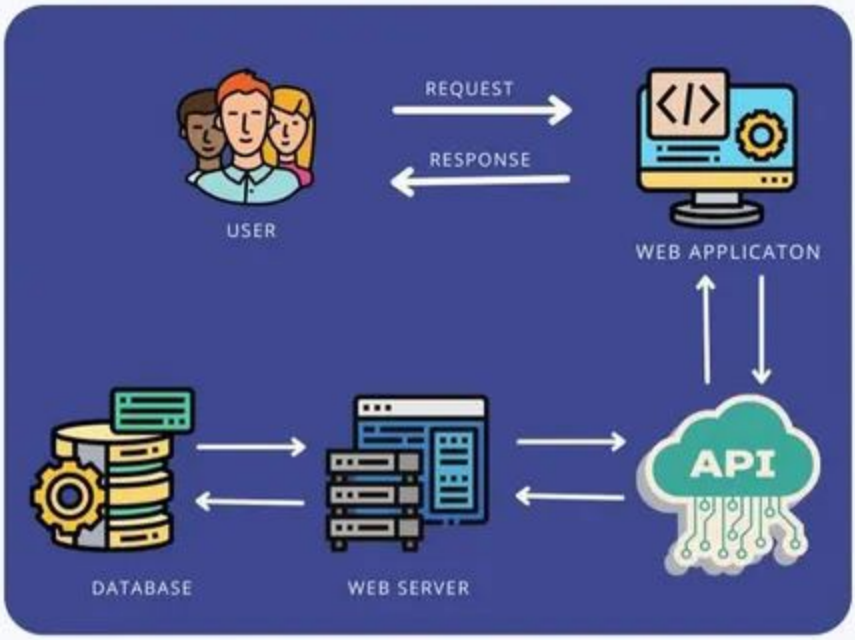
API, REST API AND RESTFUL API

@thehappycoders

REST API and RESTful API used in the modern state of client/server architecture in software development.

Table of content:

What Is API?



Application Programme Interface abbreviated as API which is a software intermediary that allows two applications to talk to each other. Let's look into **an example** to go through with this topic,

01 If user wants to book train tickets, web application shows the departure time, stations like that all the informations.

02 When we look in this from the developer side, developer wants to display all the train schedule informations in the web application, then developer use the APIs to get these train informations from the web server where all the train details and informations are stored.

03 Then developers can retrieve data from the web server using the APIs to display in the web application.

Benefits Of Using API

APIs needed to make the connection between application functions to handle the data from predefined processes.

- **Ease of integration:** APIs can be embedded with any type of software application, So it can easily integrate with the applications and functions between different websites.

- **Reduce software development effort:** Using APIs reduce development efforts, developers can implement APIs of Google Maps to provide the exact store location to website visitors.

- **Security:** APIs provide a secure communication gateway for different app components to interact and exchange data.

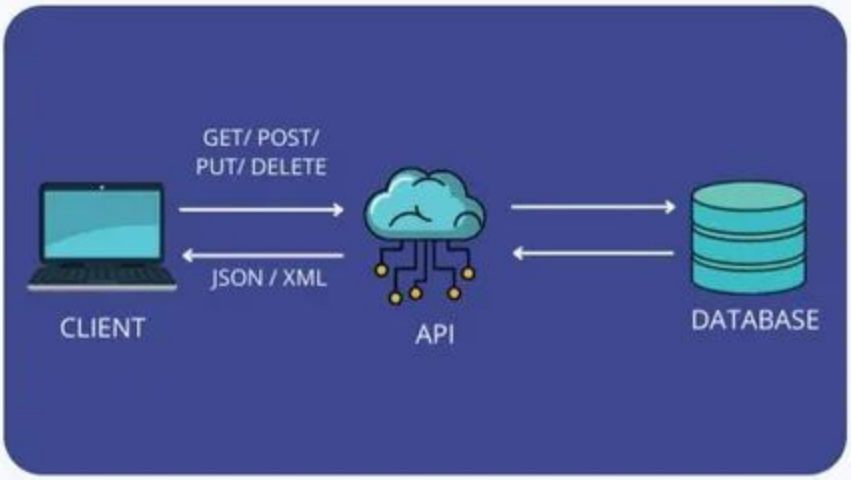
What Is A RESTFUL API And REST API?

REST API

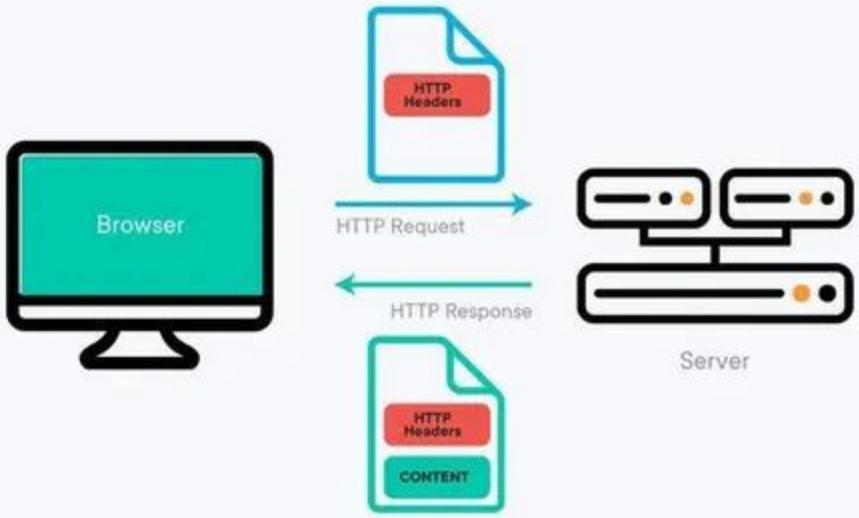
REpresentational State Transfer abbreviated to REST. It is an API that follows a set of rules for an application and services to communicate with each other.

REST APIs work by fielding requests for a resource and returning all relevant information about the resource, translated into a format that clients can easily interpret (this format is determined by the API receiving requests). Clients can also modify items on the server and even add new items to the server through a REST API.

RESTful API



The RESTful API obeys the REST architecture constraints and interacts with RESTful web services. The RESTful API also follows the principles of REST API. RESTful APIs are more scalable and have a longer lifespan. The RESTful API uses HTTP requests to access and use data.



There **four basic HTTP requests** a client can make are:

- **GET** — To retrieve a resource.
- **POST** — To create a new resource.
- **PUT** — To edit or update an existing resource.
- **DELETE**- To delete a resource.