API Server

# 1. APIs

API is the acronym for Application Programming Interface, which is a software intermediary that allows two applications to talk to each other.

API architecture is usually explained in terms of client and server. The application sending the request is called the client, and the application sending the response is called the server.

There are four different ways that APIs can work depending on when and why they were created:

* REST APIs
* Websocket APIs
* SOAP APIs
* RPC APIs

## 1.1 REST APIs

These are the most popular and flexible APIs found on the web today. The client sends requests to the server as data. The server uses this client input to start internal functions and returns output data back to the client.

**REST** stands for **Representational State Transfer**. REST **defines** a set of functions like GET, PUT, DELETE, etc. that **clients** can **use to access** server **data**. Clients and servers exchange data using HTTP.

## 1.2 Websocket APIs

Websocket API is another modern web API development that uses JSON objects to pass data. A WebSocket API supports two-way communication between client apps and the server. The server can send callback messages to connected clients, making it more efficient than REST API.

## 1.3 SOAP APIs

## 1.4 RPC APIs