What is an API? How does it work?

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When you are using a mobile phone and accessing an application installed on the phone, you are using an API. It can be either a status update in Facebook or Finding a location on Google Maps. At that time, you are using an API.

What is this API means… Let's see what exactly is this API.

What is an API?

API, Application Programming Interface act as a communication bridge between the application and the front-end or the Interface. Basically, APIs are the building blocks of complex programs which defines an independent set of functionalities with a reusable piece of code. They deliver the request of the user to the back-end system and deliver back the response to the user from the system.

In the process of application development, instead of starting from the scratch, what application developers do is, they use available APIs in their development. It enhances the productivity of the development process by saving the time spent on writing new programs again and again.

How does API work?

From a techy's mind;

When you are using a mobile application, it connects to the internet and sends your request to the server. The server then collects the data from your request, process them and send back to your mobile phone. The application will convert that data into a readable response and display that through the user interface. This is what exactly API does.

Does it sound like Greek? Don't worry! It was the same for me at the beginning :)
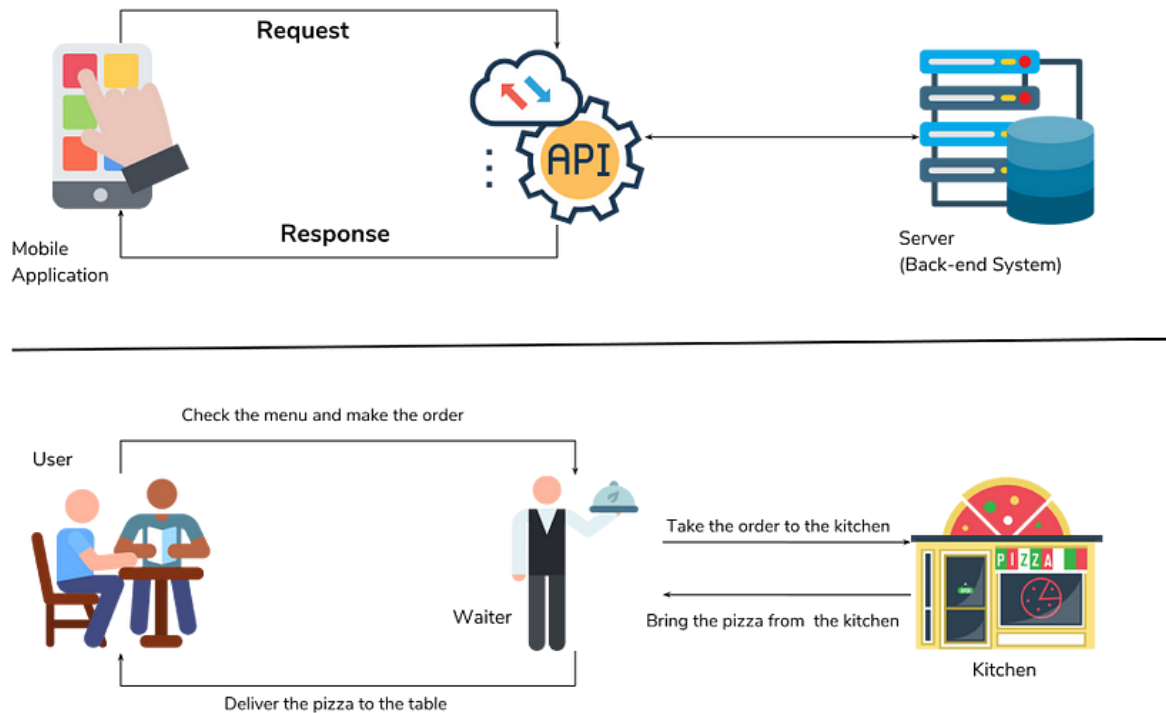
So, now let's figure out it in simple terms:

Figure 1: What is an API (with example)

Imagine you go to a Pizza place. You check the menu and place the order. This order needs to be sent to the kitchen. Hence, you place the order through a waiter. The waiter takes your order to the kitchen and brings back your pizza from the kitchen.

In this example, the menu is your application. You are sending request by placing your order. Waiter act as the API which is the intermediary who takes your request to the kitchen — the back-end system. You get the pizza or the response from the kitchen through the waiter or the API.

APIs has become one of the most demanding parts of software developments. Hence, platform providers such as Google, Facebook and Salesforce have exposed their APIs to be used in various application development. This creates a market for APIs and adds strategic value to APIs.