

A Web API is an online “application programming interface” that allows developers to interact with external services. These are the commands that the developer of the service has determined will be used to access certain features of their program. It is referred to as an interface because a good API should have commands that make it intuitive to interact with.

An example of this might be if we want to get information about a user from their social media account. That social media platform would likely have a web API for developers to use in order to request that data. Other commonly used APIs handle things like advertising ([AdMob](#)), machine learning ([ML Kit](#)), Payments APIs and cloud storage.

It’s easy to see how interacting with these types of services could extend the functionality of an app. In fact, the vast majority of successful apps on the Play Store will use at least one web API!

How a Web API works

Most APIs work using either XML or JSON. These languages allow us to send and retrieve large amounts of useful information in the form of objects.

1. XML is eXtensible Markup Language. If you are an Android developer, then you’re probably already familiar with XML from building your layouts and saving variables.

XML is easy to understand and generally places keys inside triangle brackets, followed by their values. It looks a bit like HTML:

```
<client>

  <name>Jeff</name>

  <age>32</age>

</client>
```

JSON, on the other hand, stands for “Javascript Object Notation.” It is a short-hand for sending data online. Like XML or a CSV file, it can be used to send “value/attribute pairs.”

Here the syntax looks a little different, though:

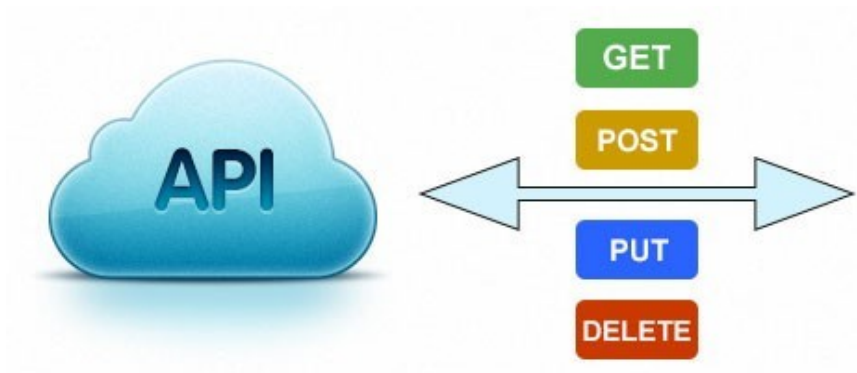
```
[{client: {"name": "Jeff", "age": 32}}]
```

What are routes

A “Route” is a URL that represents an endpoint for the API. If we take a look at JSON Placeholder, you’ll see we have options such as “/posts” and “/comments”. Chances are you will have seen URLs like this yourself while browsing the web!

<https://jsonplaceholder.typicode.com/posts>

Example of API working scenario



in this lesson we will learn on creating an Api in python.