What is an API?

APPLICATION PROGRAMMING INTERFACE

"A set of functions and procedures that allow the creation of applications which access the features or data of an operating system, application, or other service."

Think of an API as a waiter, you have a menu with stuff you can ask for, then the waiter takes that and returns what you asked for. Similarly an API accepts data and does stuff with that data, whether that be to return other data, or delete date, update data… anything really.

One of the most popular type of APIs is something called REST APIs.

REPRESENTATIONAL STATE TRANSFER

This is a web service that provides interoperability between computer systems on the internet.

These services allow systems to access and manipulate textual representations of web resources using a uniform and pre-defined set of stateless operations.

There are others such as WSDL and SOAP but REST has been very successful and popular for a long time now.

WHAT'S GOOD ABOUT THEM?

Similar to good programming concepts, we want to reuse things where possible, by separating our data/logic into an API, multiple things can use the API and build things from it, allowing the same company to use their API and build things such as a web app, phone app, desktop app, all using the same API, or even making the API public and letting the community create what they want!

WHAT ARE THEY USED FOR?

Everything really, any data you want to work with can be exposed via an API, providing functionality or just simply data lookup.

HOW DO WE MAKE THEM?

Lots of languages have the ability to make APIS, Node (The backend part of JavaScript) has a framework called Express which is generally used for it.

HOW DO WE USE THEM?

Web requests! Your browser has the ability to make GET requests simply by loading up the URL, however to make the other requests such as post or delete we generally use a program to do it, or code it!

EXAMPLE PUBLIC APIS

- https://developers.soundcloud.com/docs/api/guide
- http://deckofcardsapi.com/
- https://darksky.net/dev/
- http://products.wolframalpha.com/api/
- http://developer.marvel.com/
- https://github.com/toddmotto/public-apis
- https://www.programmableweb.com/apis