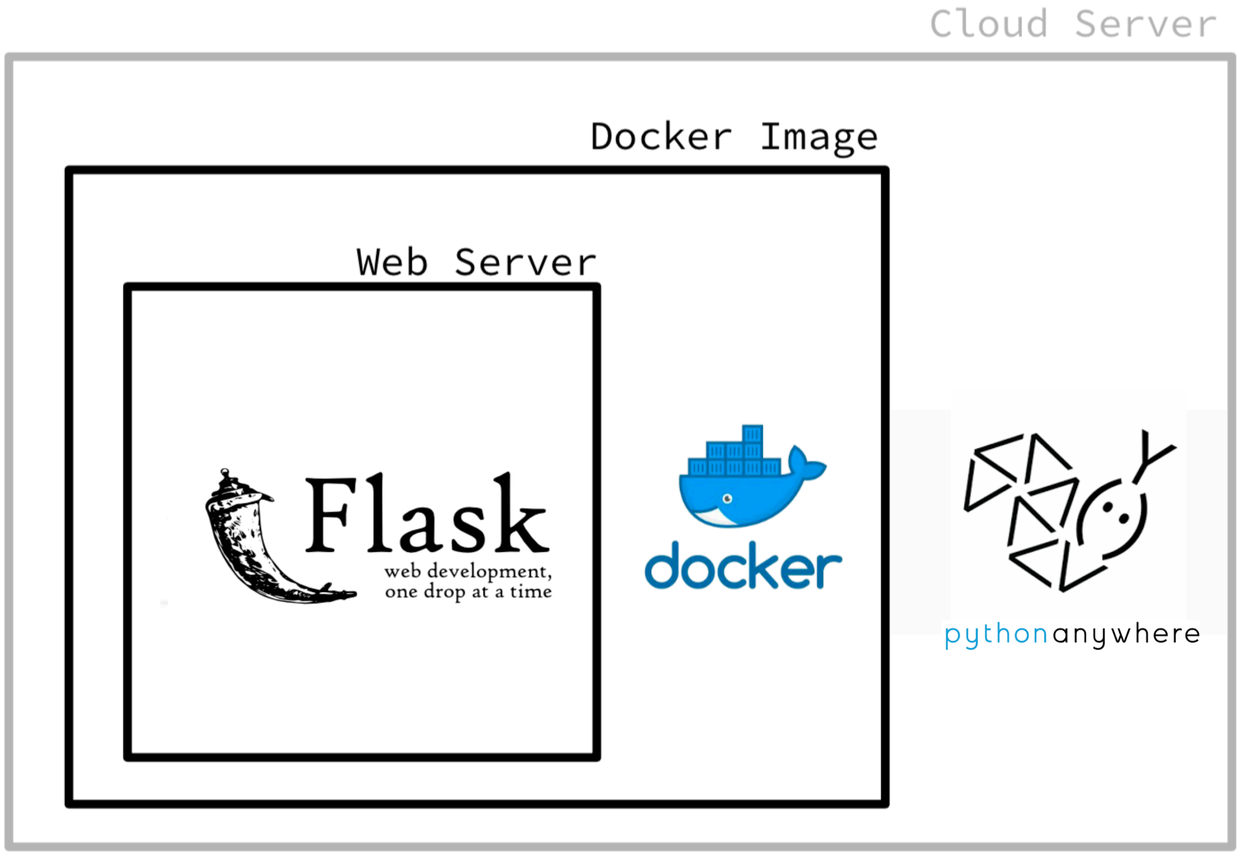
What are we doing here?

Created a machine learning model…now I want someone to use it!

Lets start to think about how we can deploy our model so someone else can access it (without knowing much of what's going on underneath)

Expose a web API (locally for today)

What are we going to build?



## What is an API anyways?

Technically, API stands for **Application Programming Interface**. At some point or another, most large companies have built APIs for their customers, or for internal use.

When you type www.facebook.com into your browser, a request goes out to Facebook's remote server. Once your browser receives the response, it interprets the code and displays the page.

An API isn't the same as the remote server—rather it is the part of the server that receives requests and sends responses.

When a company offers an API to their customers, it just means that they've built a set of dedicated URLs that return pure data responses—meaning the responses won't contain the kind of presentational overhead that you would expect in a graphical user interface like a website. (thanks https://medium.freecodecamp.org/what-is-an-api-in-english-please-b880a3214a82)

# REST API

A REST API defines a set of functions which developers can perform requests and receive responses via HTTP protocol such as GET and POST.

REST stands for Representational state transfer which essentially refers to a style of web architecture that has many underlying characteristics and governs the behavior of clients and servers.

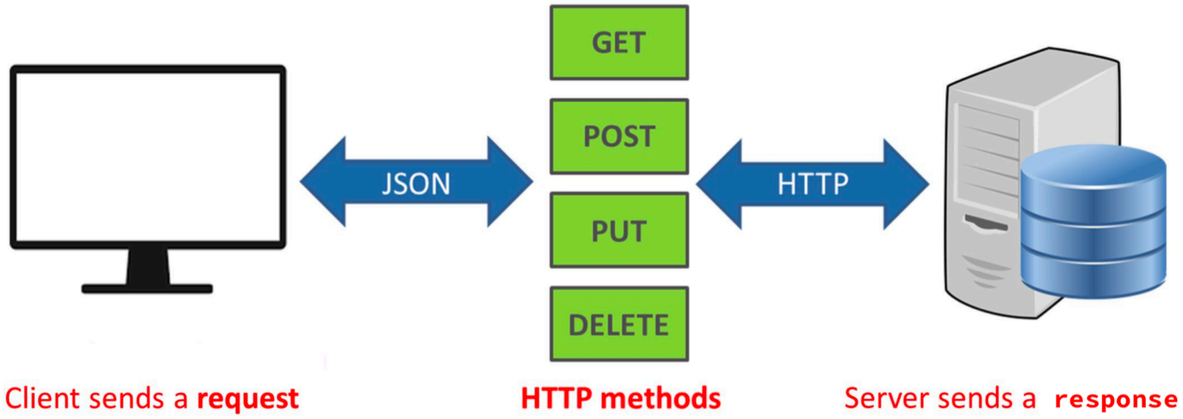
An API can be considered “RESTful” if it has the following features (main features of R):

**Client–server** – The client handles the front end the server handles the backend and can both be replaced independently of each other.

**Stateless** – No client data is stored on the server between requests and session state is stored on the client.

**Cacheable** – Clients can cache response (just like browsers caching static elements of a web page) to improve performance

# REST API




```
GET library.com/book
```

What is Flask?

A microframework for Python, meaning it has little to no dependencies to external libraries.

It really is a web framework providing tools, libraries and technologies to build web applications. (in our case an API)

Flask can create a REST API that allows you to send data, and receive a prediction as a response.

What are we doing with Flask?

We will create routes for our api that receives different requests (GET and POST), specifically a POSTing json data

Once our flask server receives json data it will apply a function and then return some value also in json format