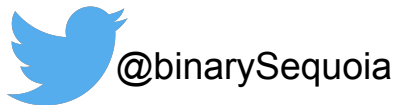


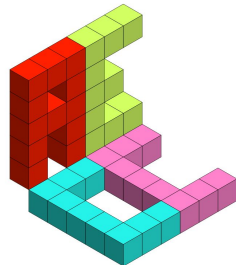
APIs:

Building Blocks of Every Million Dollars App

Jeffrey A. Chan Santiago



https://github.com/binarySequoia/api_workshop2018



¿Cuál es el plan?

- Concepto API
- WebApps
- Client-Server Model
- HTTP
- DEMOS
- Motivacion



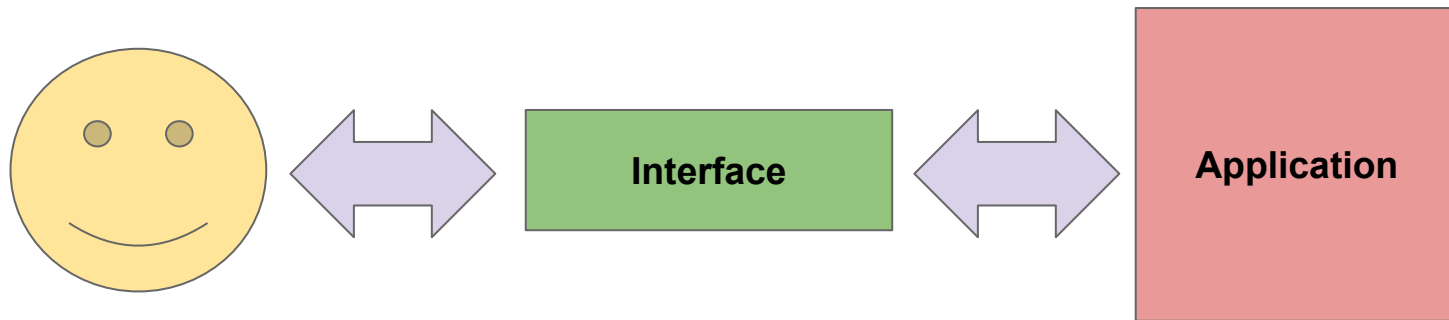
Requisitos para el taller

- Computadora con python y pip
- Saber cómo hacer copy/paste
- Extract a Zip File
- Git (optional)
- Avanzado:
 - Stackoverflow

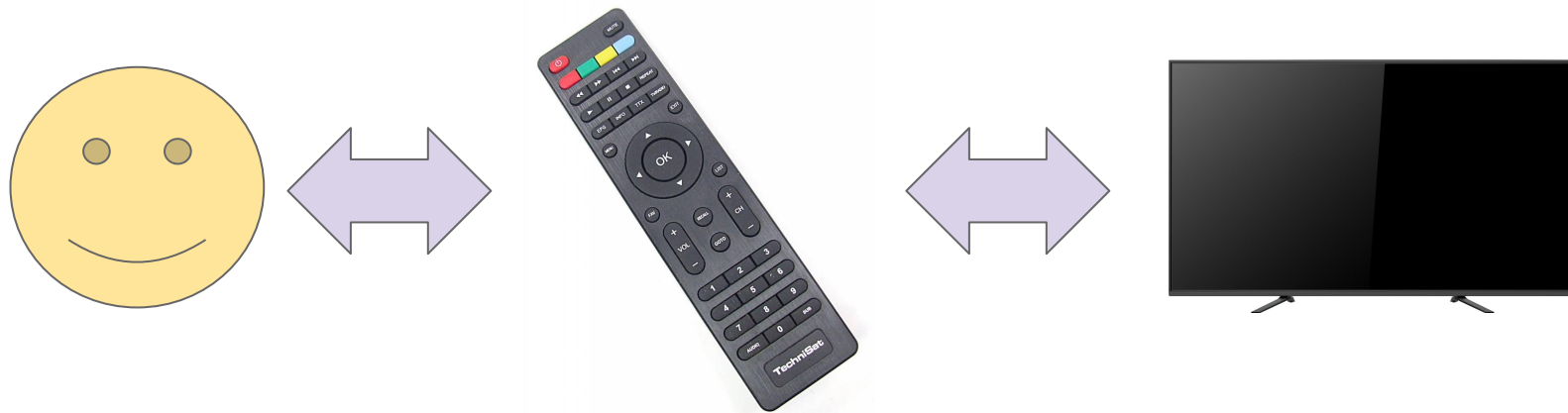
¿Qué es un API?

¿Qué es un API?

Application Program Interface



Analogía del TV



**¿Por qué
necesitamos APIs?**

¿Por Qué Necesitamos APIs?

(Client Side)

- No queremos reinventar la rueda
- Prototype rápido
- Necesitamos un servicio en particular

(Google Maps, Login with Facebook, SMS Twilio)

¿Por Qué Necesitamos APIs?

(Server Side)

- **Compartir nuestro servicio**
 - **Fácil y seguro**
- **Authentication**

¿Conoces un API?

Tipos APIs?

- Operating systems API
 - Windows API
 - MacOS API
- Hardware Acceleration
 - OpenGL/OpenCL
 - CUDA
 - OpenMP
- Libraries
 - OpenCV
 - Flask
- WebAPI
 - Google Map
 - Facebook

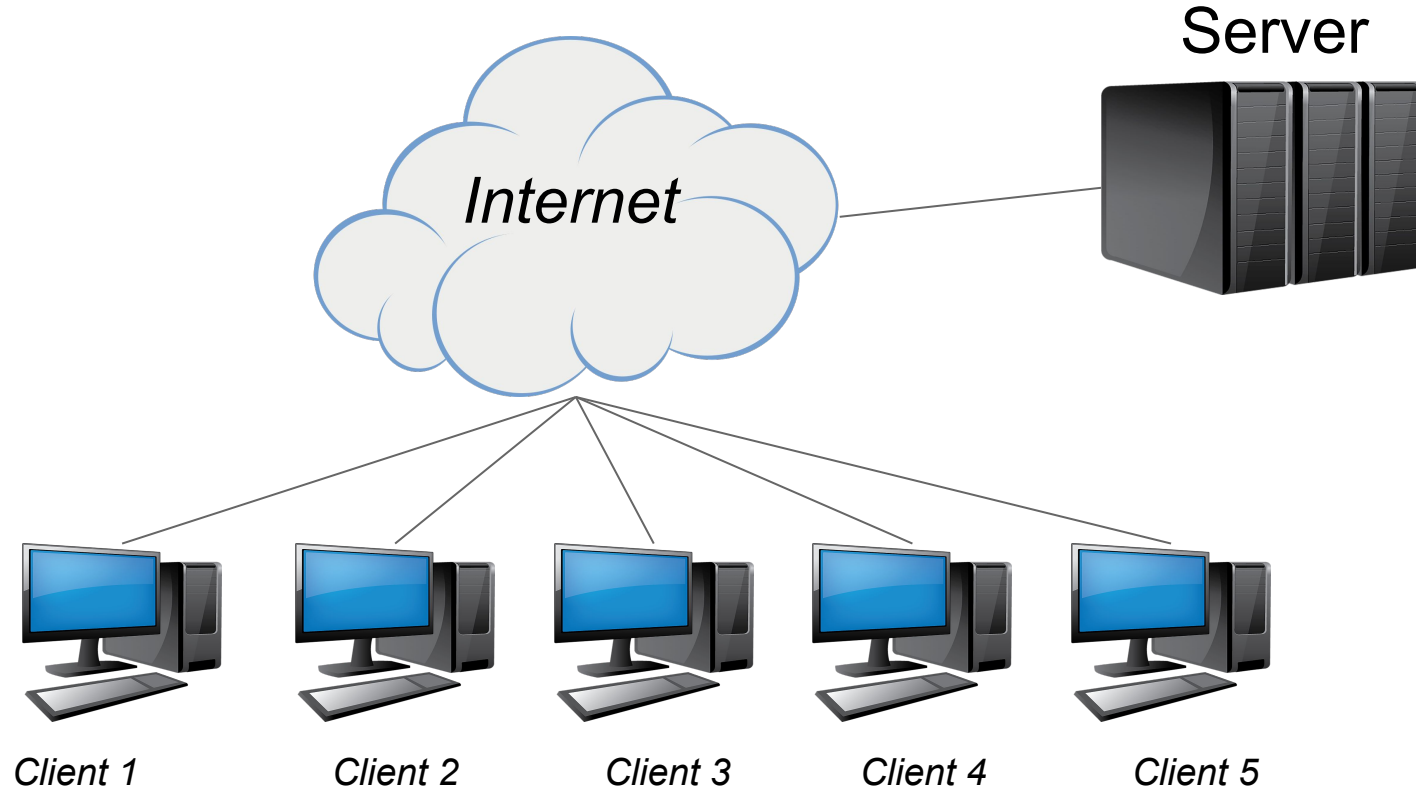
¿Web API?

Web App

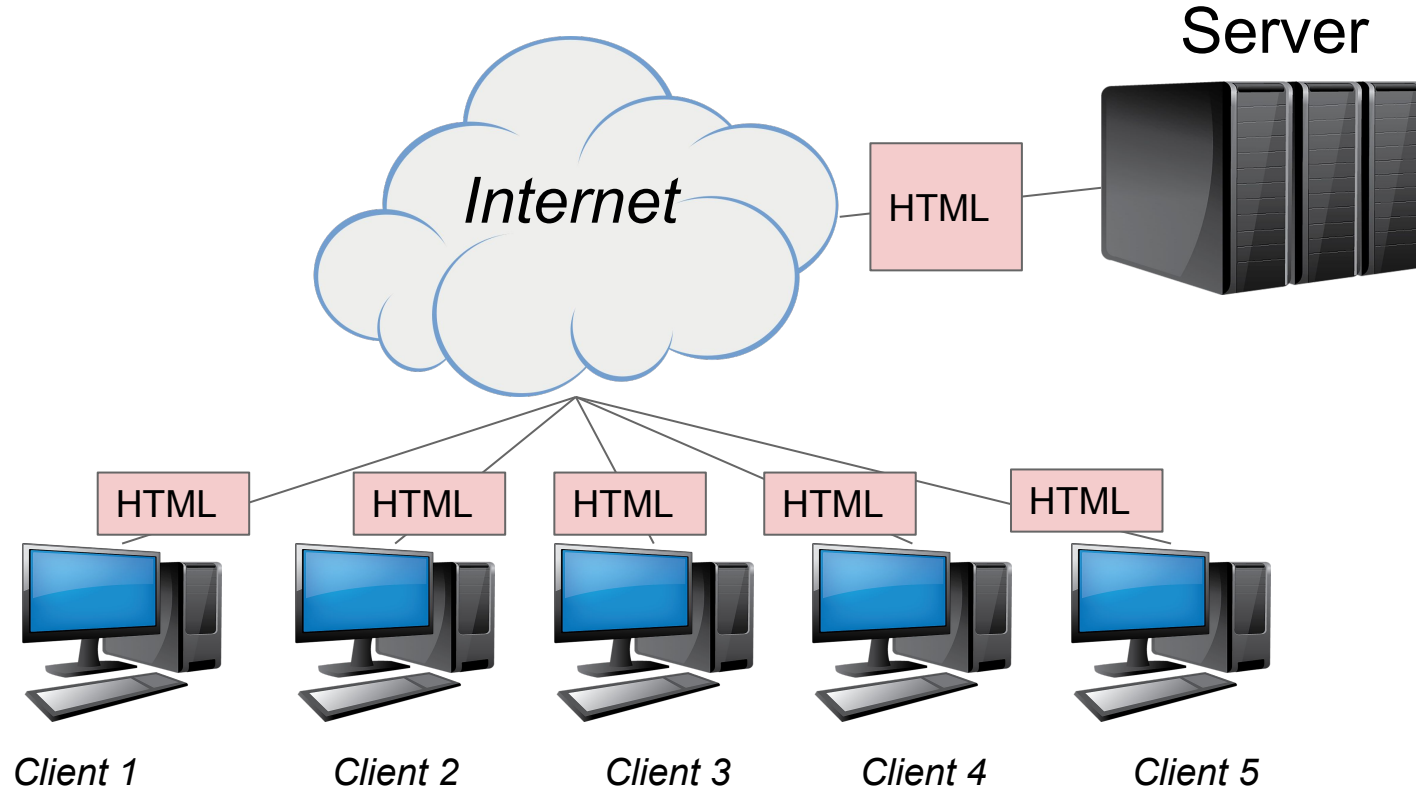
A **Web API** is an application programming interface for either a web server or a web browser.

(Wikipedia)

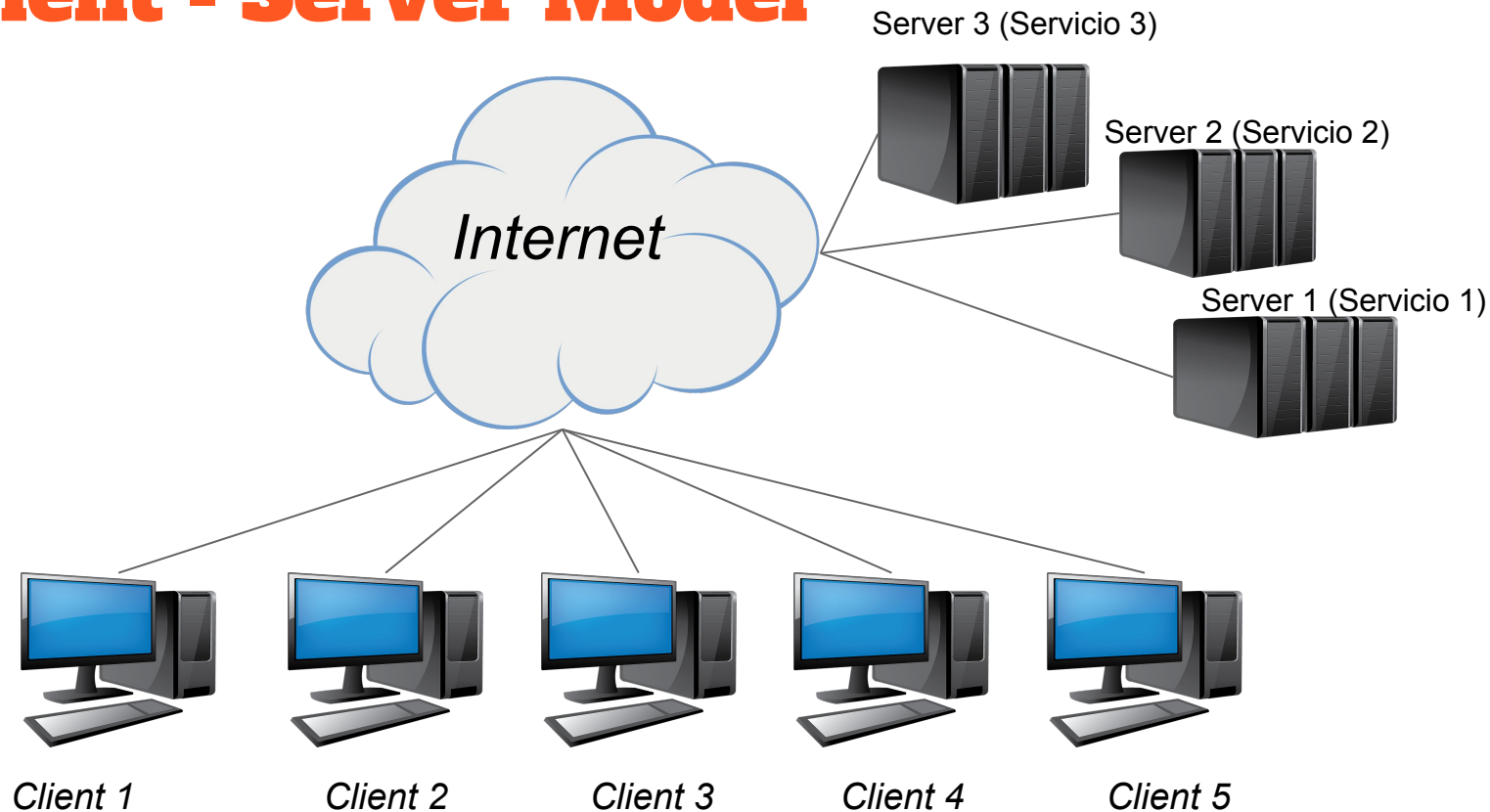
Client - Server Model



Client - Server Model



Client - Server Model



REST API / HTTP

- REST = Representational state transfer
- HOST
- Endpoints
- HTTP Protocol
 - GET
 - POST
 - PUT
 - PATCH
 - DELETE

GET

- Requests using GET should only retrieve data and should have no other effect.

Example:

<https://www.google.com/>

GET

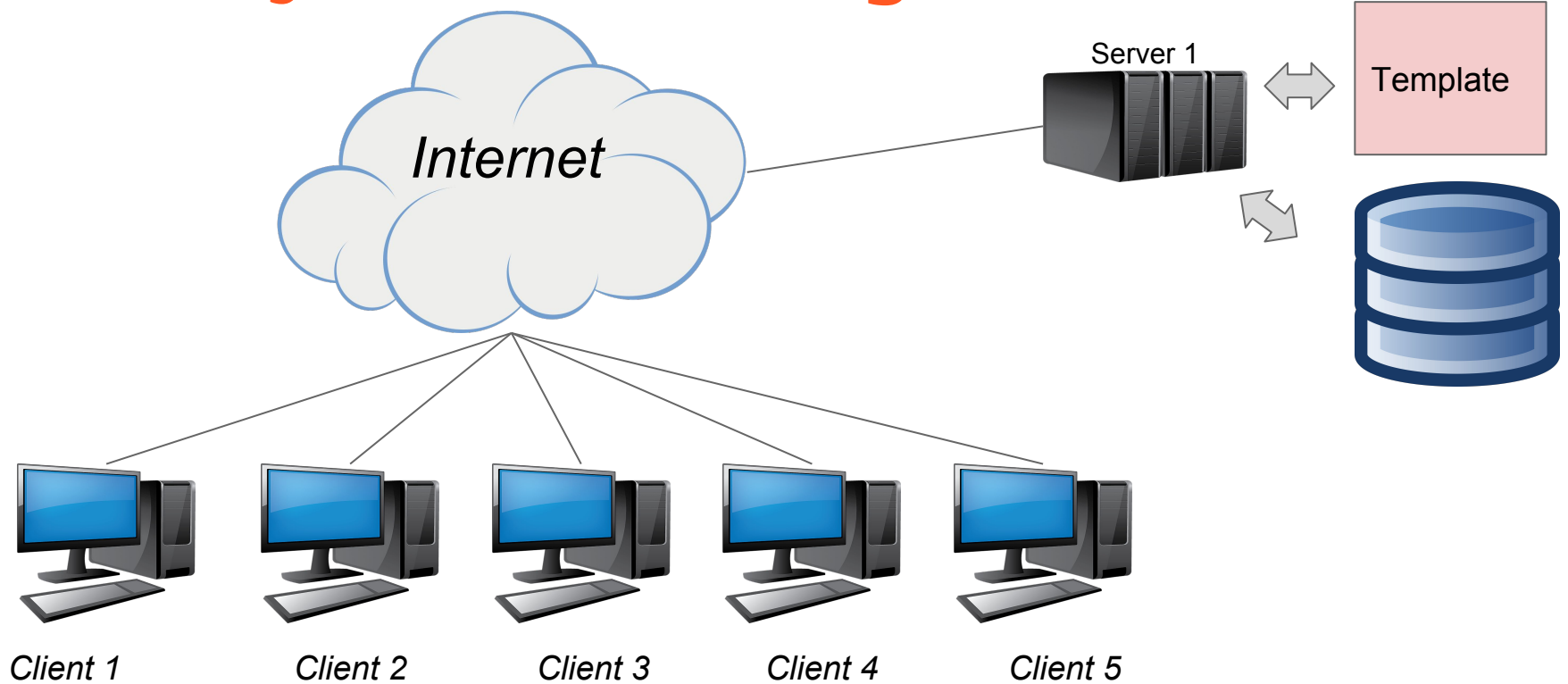
- Parametros generalmente de la forma:

`http://example.com/?var1=val1&var2=val2&var...`

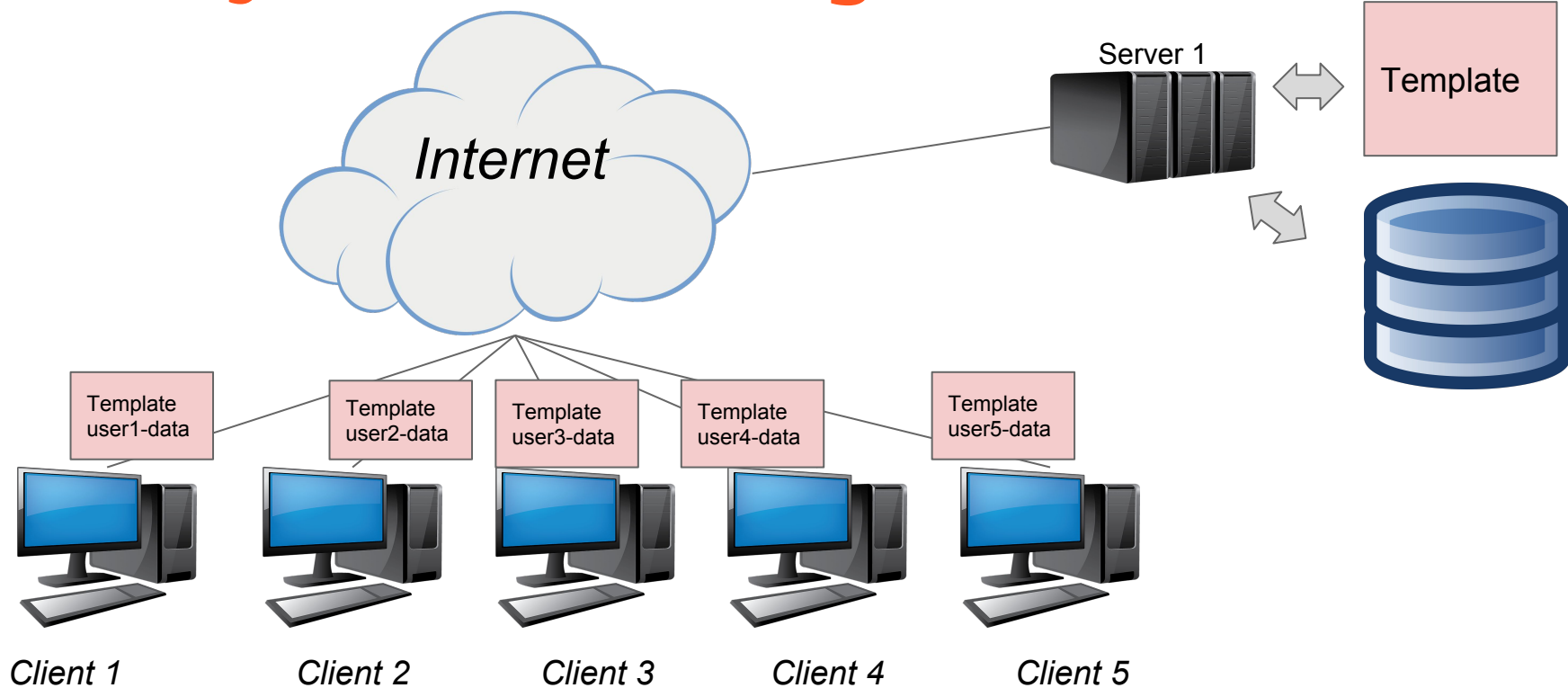
Example:

<https://www.google.com/search?q=apis>

GET - Dynamic Web Pages



GET - Dynamic Web Pages



POST

- an annotation for existing resources
- a web form to a data-handling process
- or an item to add to a database

Example:

<https://www.facebook.com>

```
data: {  
  username: username123  
  password: passwd123  
}
```



Set Up . . .

Demo 1



<https://www.twilio.com/docs/sms/quickstart/python>

Demo 2



Flask