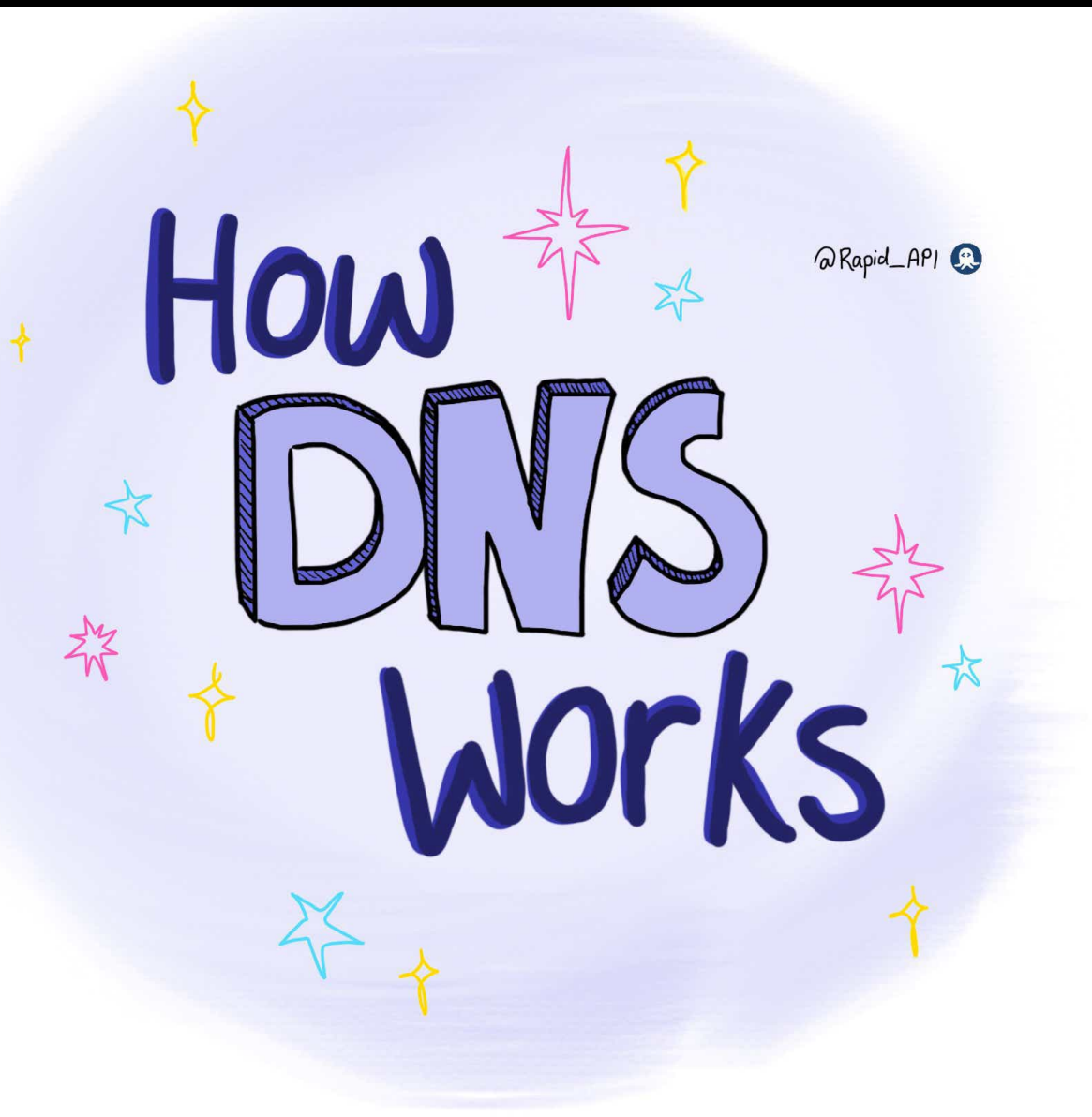

How
DNS
Works
@Rapid_API

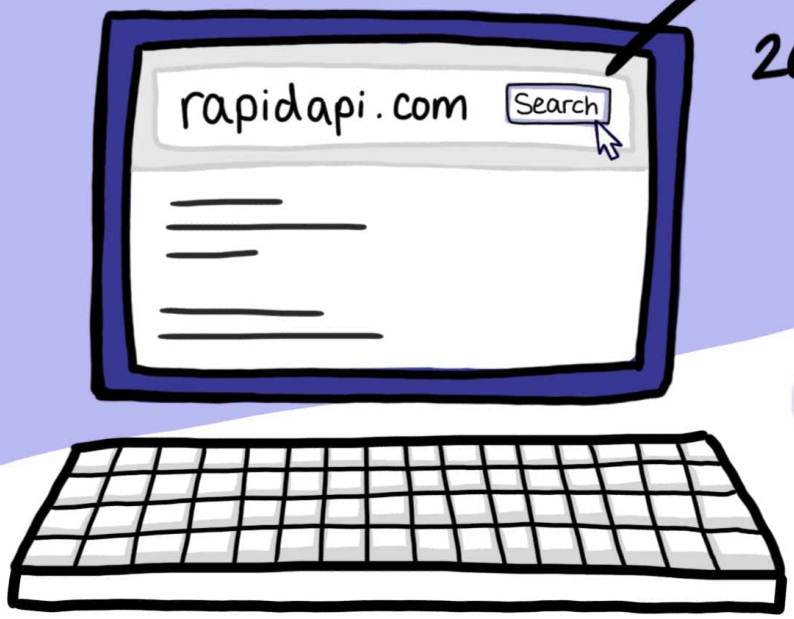
@Rapid_API

DNS stands for Domain Name System

DNS is the system that translates domain names into IP addresses.

rapidapi.com

2606:4700:3108::ac42:2918



Computers and servers use IP addresses to identify websites and direct your browser to the correct one.

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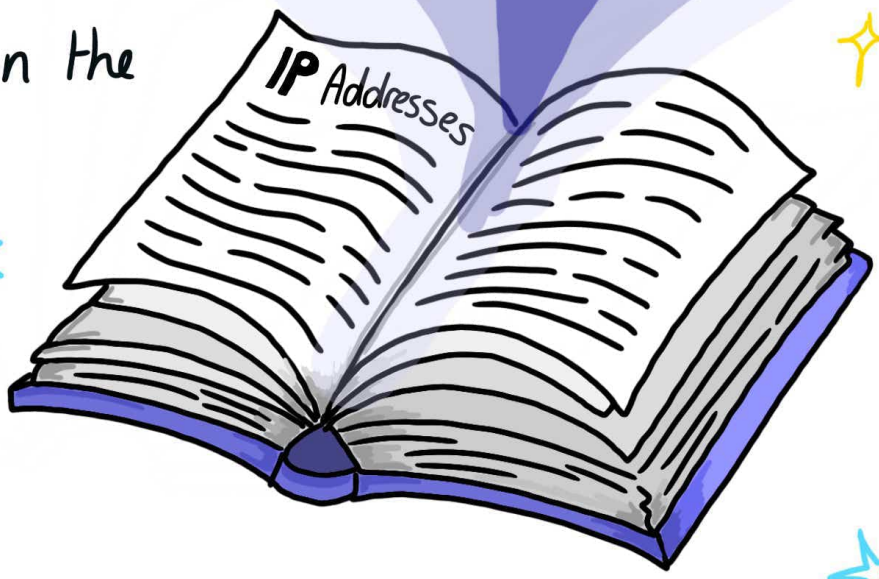
You can think of DNS acting like an address book for every website on the Internet.



There are **5** basic steps in the **DNS** System:

Step 1

DNS Cache

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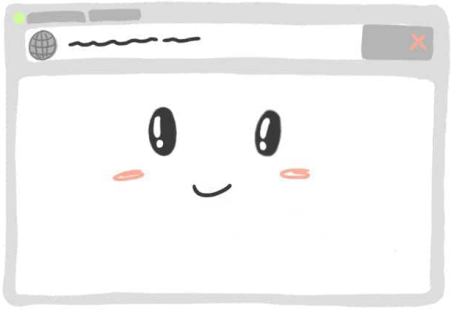
User searches for a site

rapidapi.com Search

Click!

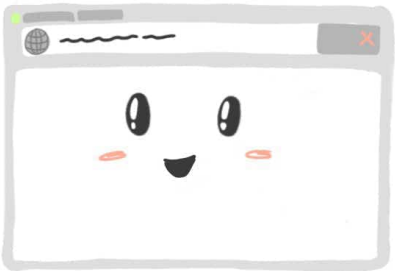
I'll just check my Cache to see if I already Know this site...

Your browser



If the website is cached, it will be loaded and the DNS system stops here.

Nope! I don't know this one. Let me send it to a Resolver.



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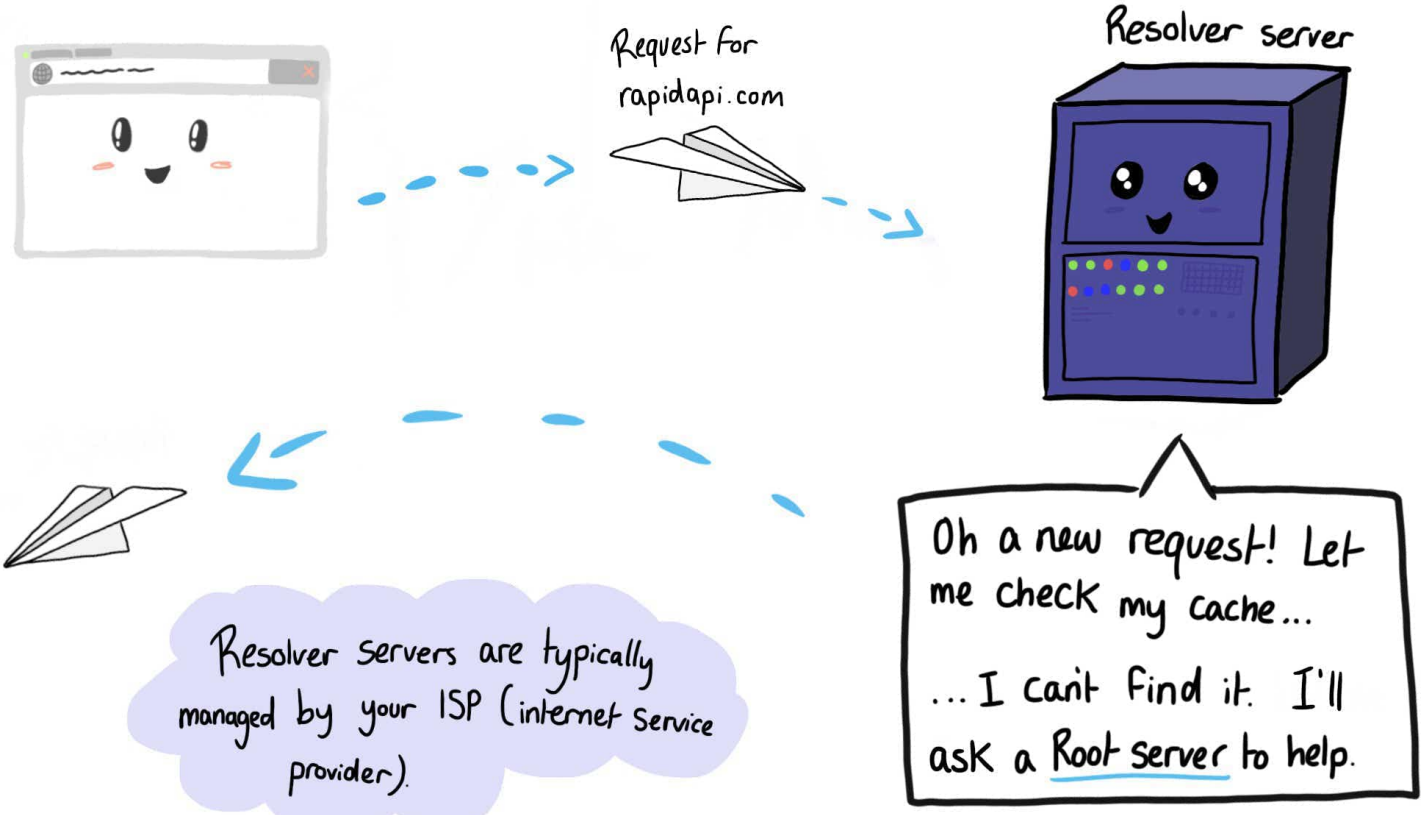
Step 2 Resolver Server



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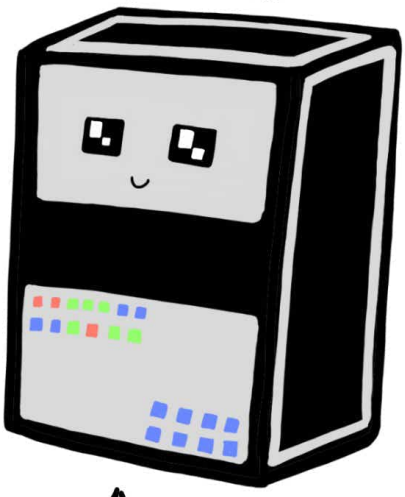
Step 3

Root Server

rapidapi.com

Root Server



Root servers sit at the top of the DNS hierarchy. They redirect Resolver servers to another type of server called TLD servers.

I don't know this site, but I can redirect you to the .COM TLD server!

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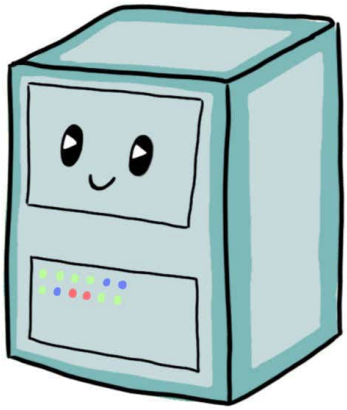
Step 4

TLD Server

There are TLD servers for domain endings (.com/.org/.net etc), as well as country codes, like .de for Germany, or .in for India.

.com TLD server



I don't know the IP address for rapidapi.com, but I can redirect the Resolver to the correct Authoratative Name Server.

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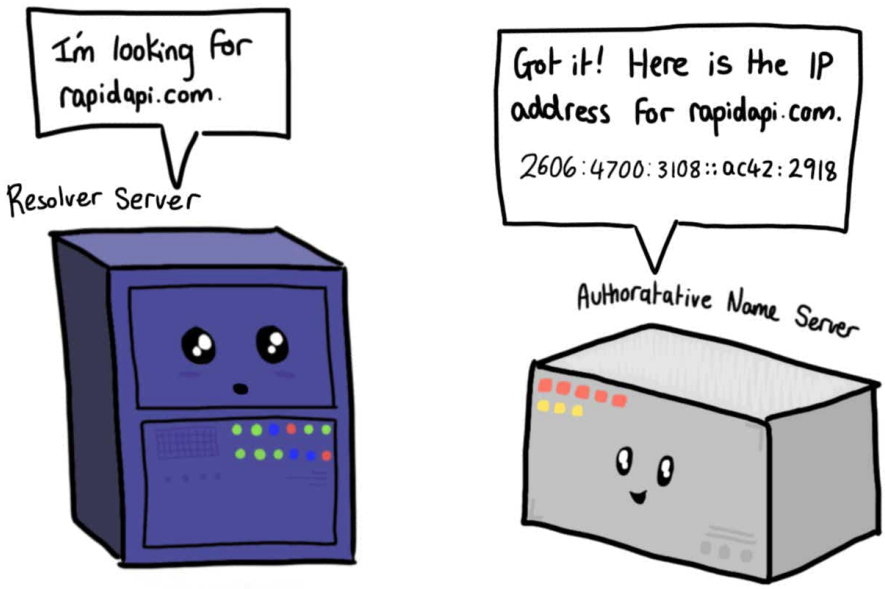
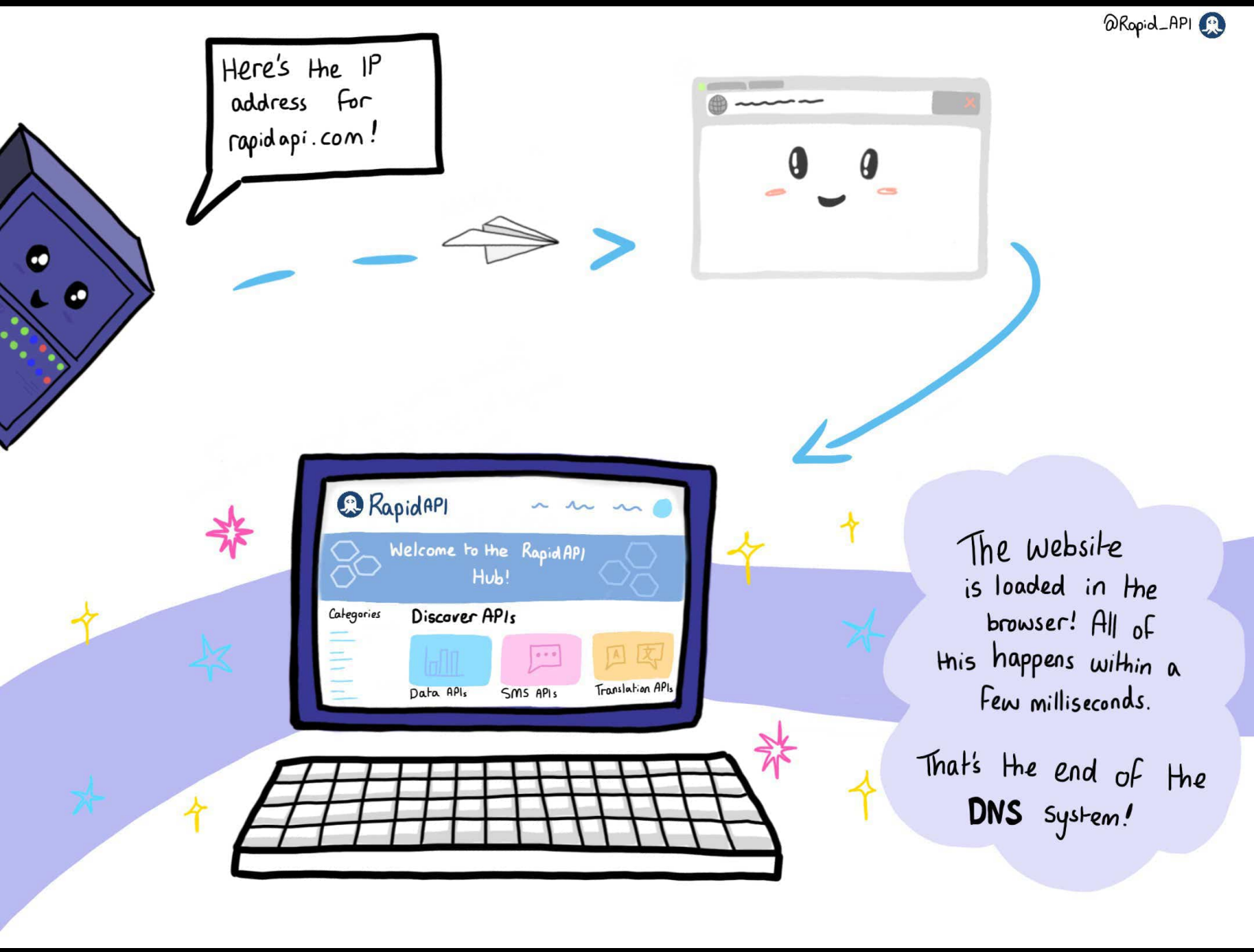
Step 5

Authoratative Name Server



Authoratative Name Servers are responsible for knowing everything about the domain.

The Resolver can now send the IP address back to the client.


@Rapid_API
Here's the IP address for rapidapi.com!
RapidAPI
Welcome to the RapidAPI Hub!
Categories
Discover APIs
Data APIs
SMS APIs
Translation APIs
The website is loaded in the browser! All of this happens within a few milliseconds.
That's the end of the DNS system!