



Agenda

- Overview of Web Development
- What happens when you hit a URL ?
- Importance of Web Development
- Opportunities in Web development

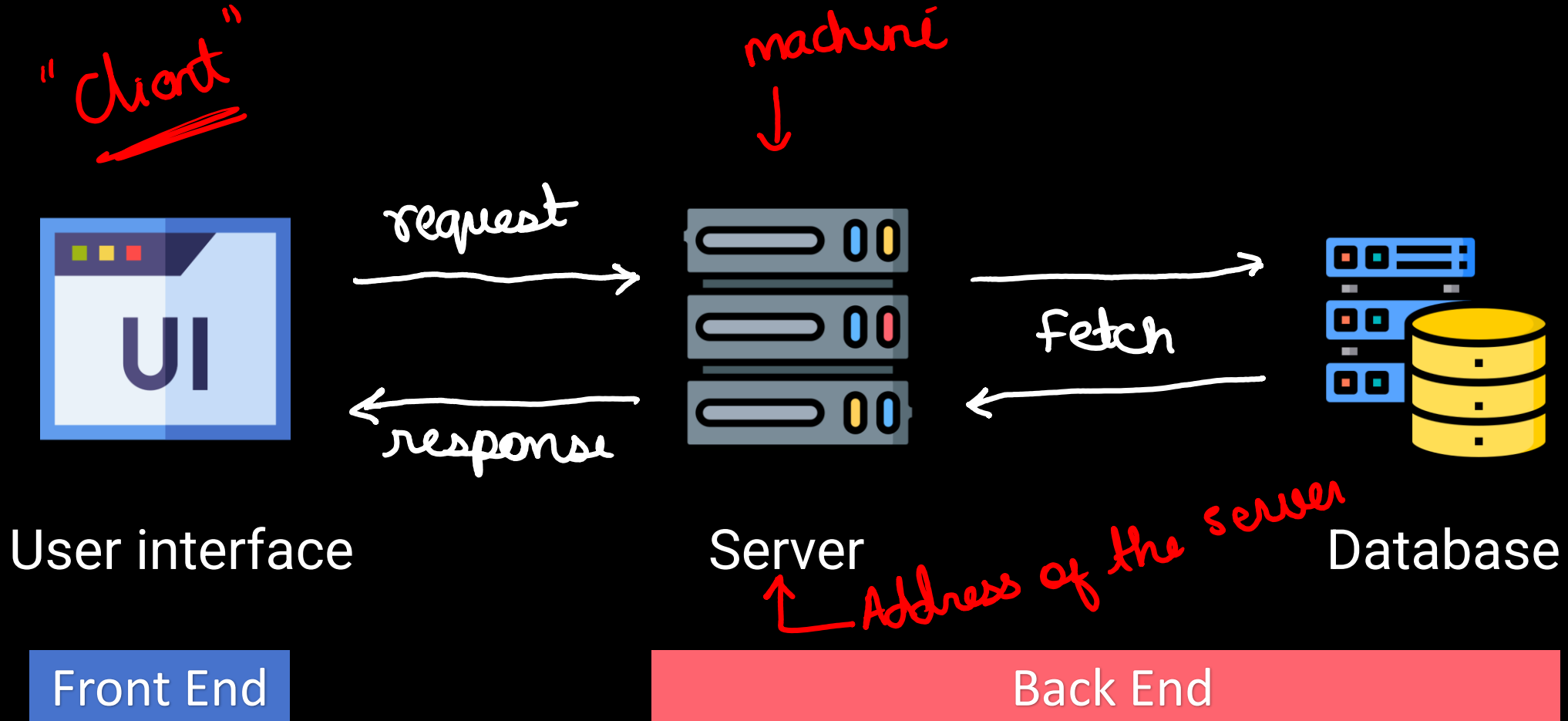
Web Development



Web Applications

↳ Application that runs in a browser

Constituents of a Website



What happens when you hit a URL ?



Parts of a URL

<https://www.prepbytes.com/interview-questions>

Parts of a URL

→ Hyper Text transfer protocol - Secure

<https://www.prepbytes.com/interview-questions>

Protocol

(Set of
Rules)

https, http, ftp, mailto :
↳ file transfer protocol

Parts of a URL

<https://www.prepbytes.com/interview-questions>

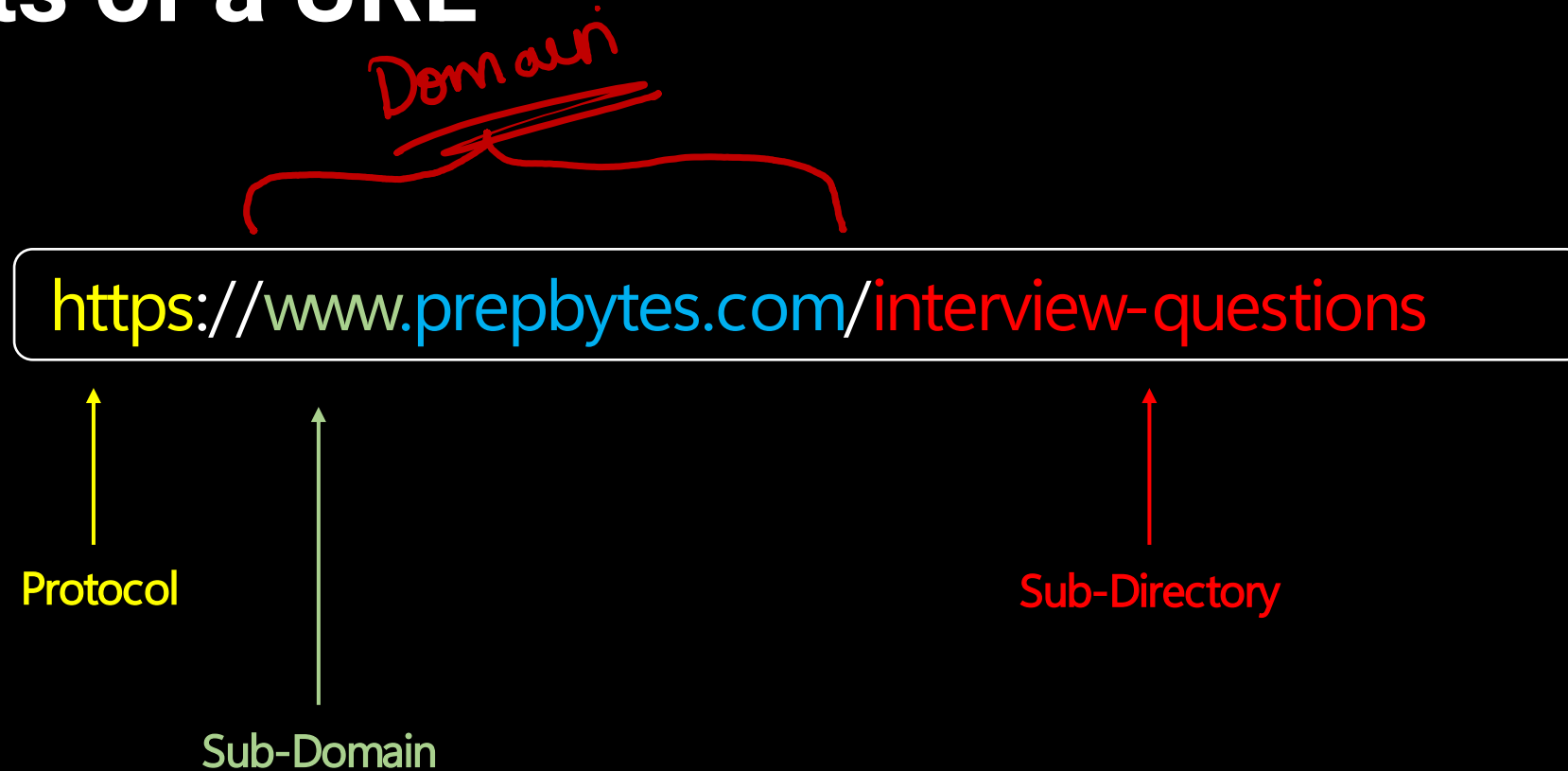
Protocol

Domain Name

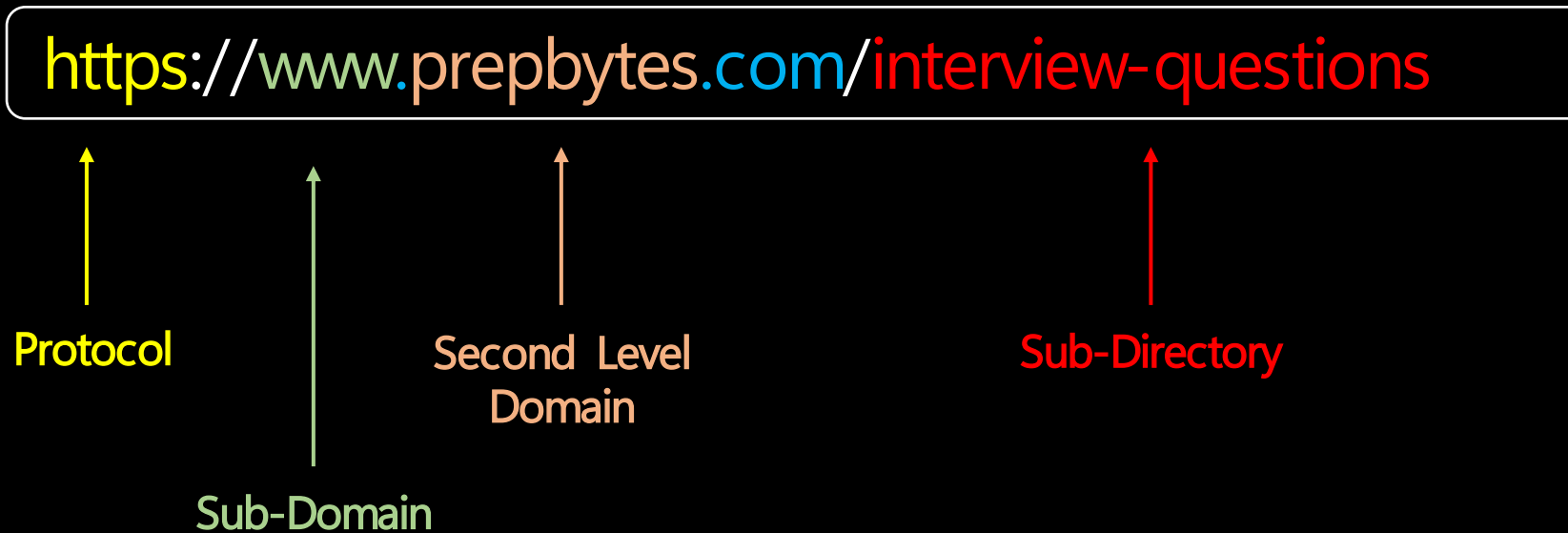
Parts of a URL



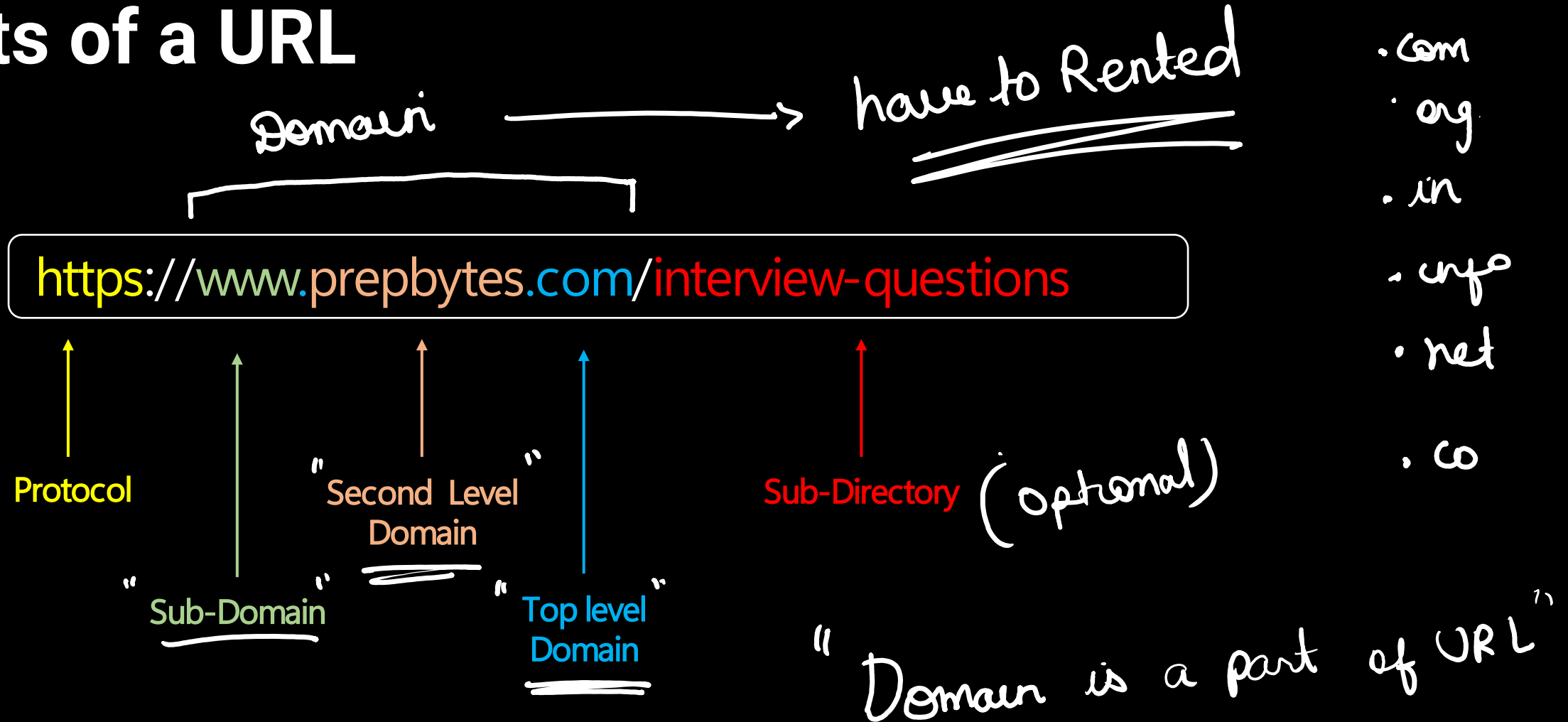
Parts of a URL



Parts of a URL



Parts of a URL



Domain Name

<https://www.prepbytes.com>

- A text entered into the browser that indicates the address of the website

Humans use Text for Address

Machines use Numbers

IP Address

↓
Internet Protocol

192.186.25.24

Range :- 0 → 255

- A Numeric label assigned to every device connected over in the internet

$256 * 256 * 256 * 256$

Resolve Domain name to IP Address

Domain Name System



"Text"

→ "Number Scheme"

DNS Resolver



ISP

↳ Internet Service

Provide

- Phone Book of the internet that maps all Domain names to their respective IP Addresses

WWW.prepbytes

"192.168.43.240"

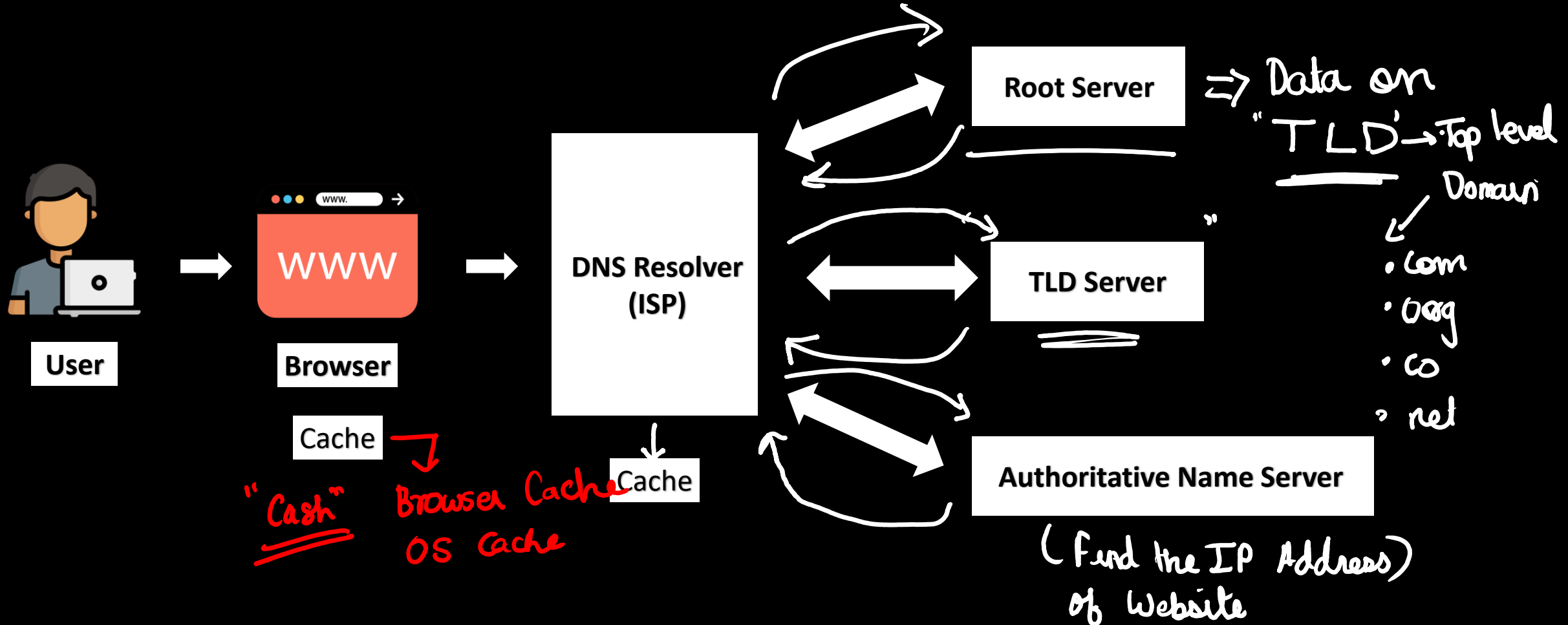
↳ Address of the Server

↓
Jio
Airtel
Vi

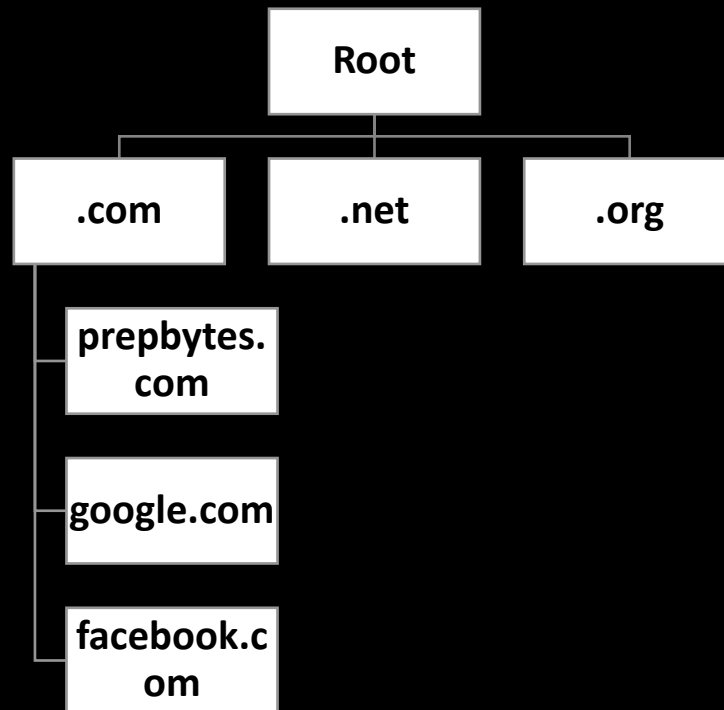
Query / DNS Lookup



I want the IP Address



DNS Lookup

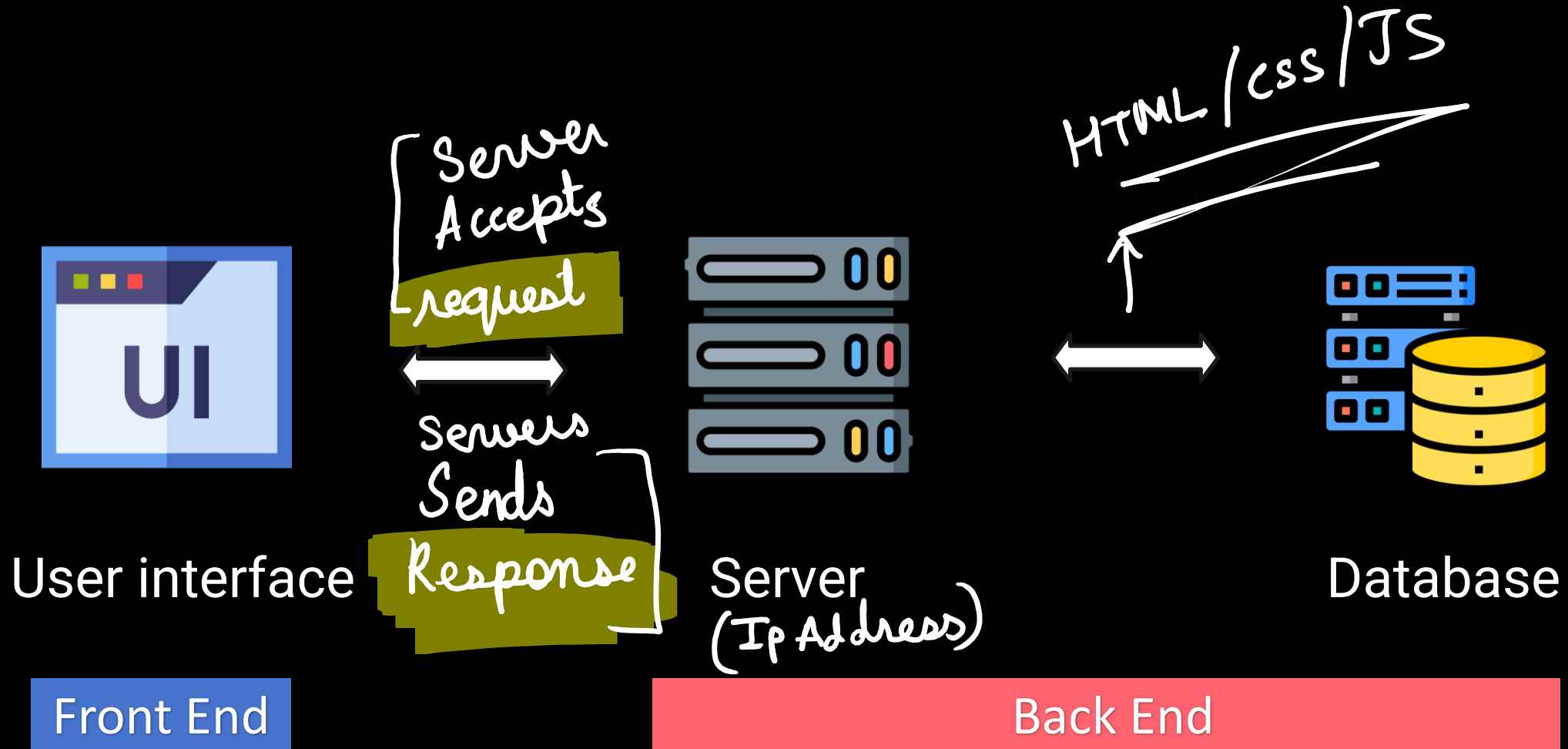


Root Server

TLD Server

**Authoritative Name
Server**

How Websites work ?



Importance of Web development

- Allows organizations to have a strong online presence
- Reach a wider audience
- Showcase products and services
- Communicate with services
- Conduct transactions online
- Creates job opportunities

Opportunities in Web development

- Web Developer - responsible for designing, coding and modifying websites, from layout to function.
- Front-End Developer - focuses on creating user-friendly and visually appealing website interfaces.
- Back-End Developer - focuses on server-side programming, database management, and server maintenance.
- Full-Stack Developer - proficient in both front-end and back-end development.

Opportunities in Web development

- UI/UX Designer - focuses on designing and improving user experience on websites and web applications.
- Quality Assurance Engineer - responsible for testing and ensuring the quality of websites and web applications.
- Web Project Manager - responsible for managing and leading web development projects from conception to completion.