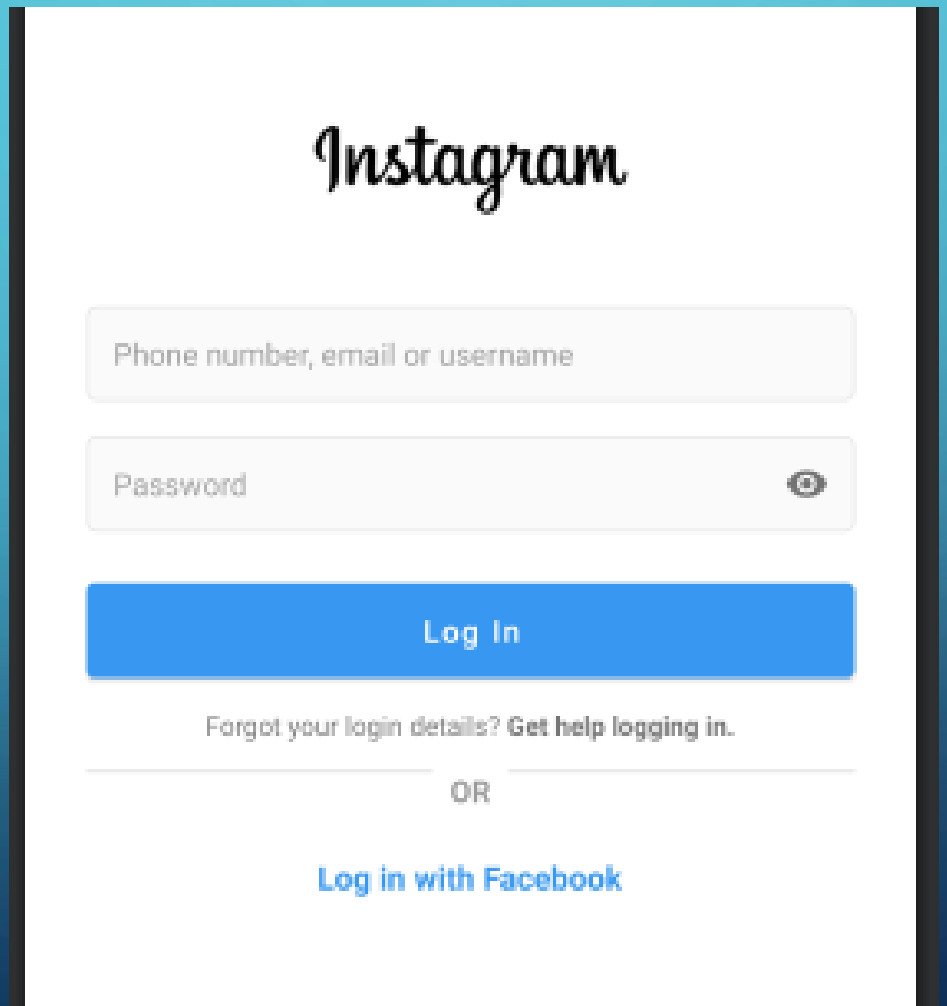
02. HOW WEBSITES WORK (CLIENT AND SERVER SIDE)

M3U1P2

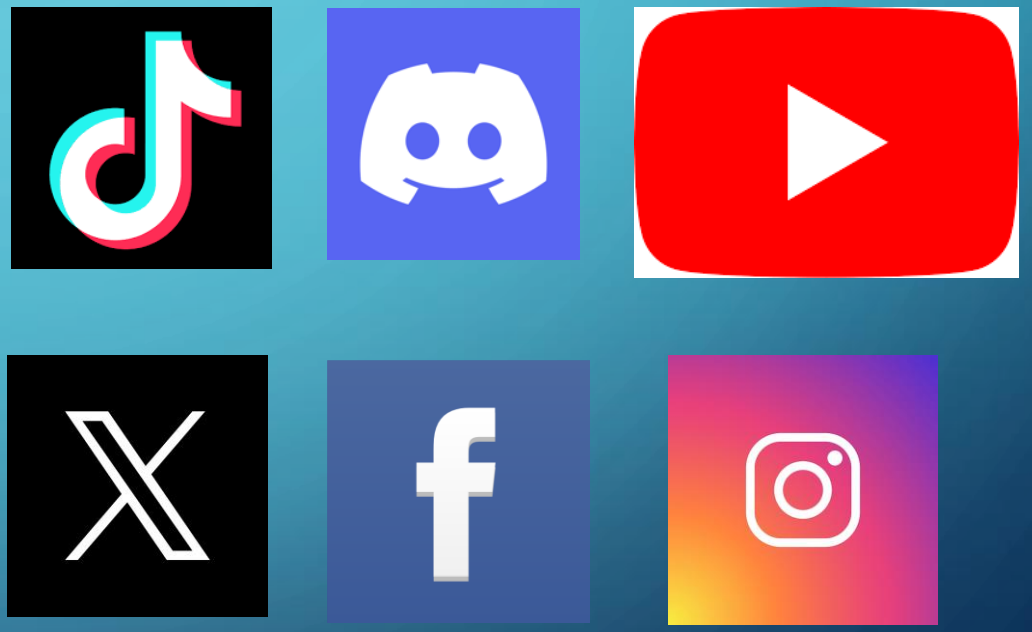
WHAT HAPPENS WHEN YOU CLICK LOGIN?



WHAT IS WEB DEVELOPMENT?

WHAT IS WEB DEVELOPMENT?

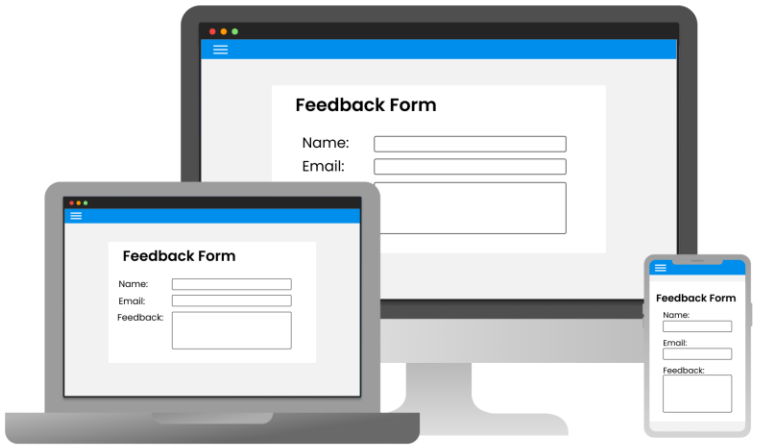
- Building websites and web apps
- Examples:
  - YouTube
  - TikTok
  - Shopee
  - Google Classroom

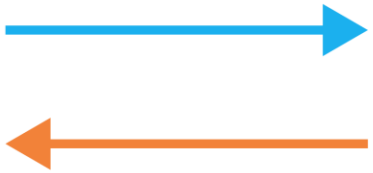


A WEBSITE HAS TWO SIDES

Client

What users see





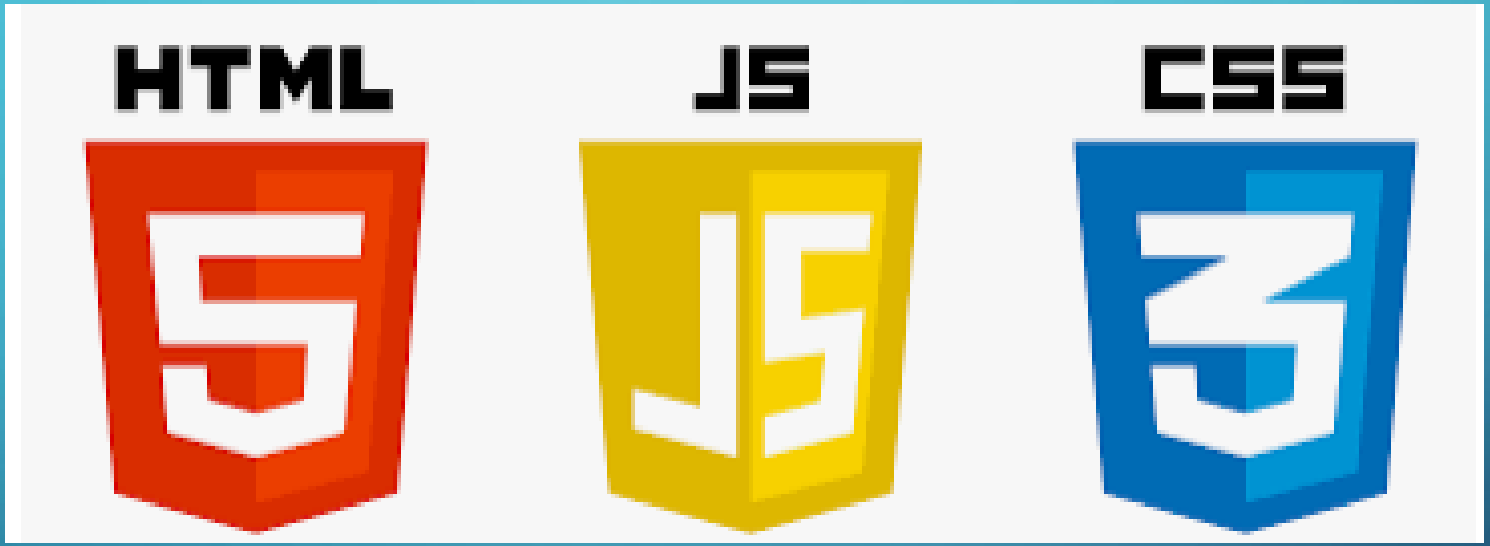
Server

What works behind the scenes

CLIENT-SIDE = YOUR DEVICE

- Client-side happens on:
  - your phone
  - your tablet
  - your computer
- Examples:
  - buttons
  - menus
  - animations
  - images

FRONT-END LANGUAGES



Structure Interaction Style

HTML

CSS

JS

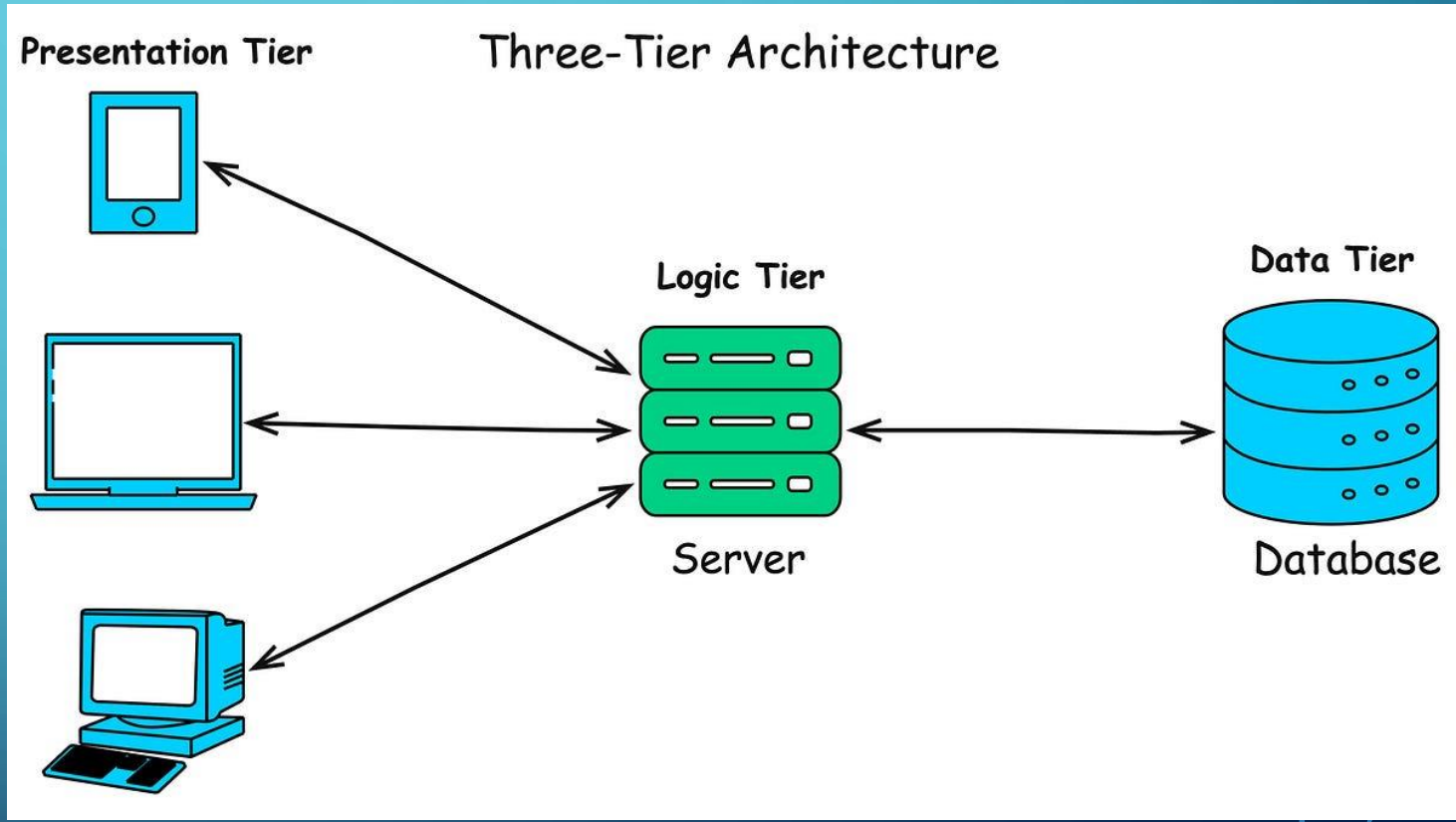
#House

#House

A switch in the house
to control the lights.

SERVER-SIDE = THE BRAIN

- The server:
  - stores data
  - checks passwords
  - sends information
  - connects to databases



BACK-END LANGUAGES

CLIENT OR SERVER?

SHOWING IMAGES

CHECKING PASSWORD

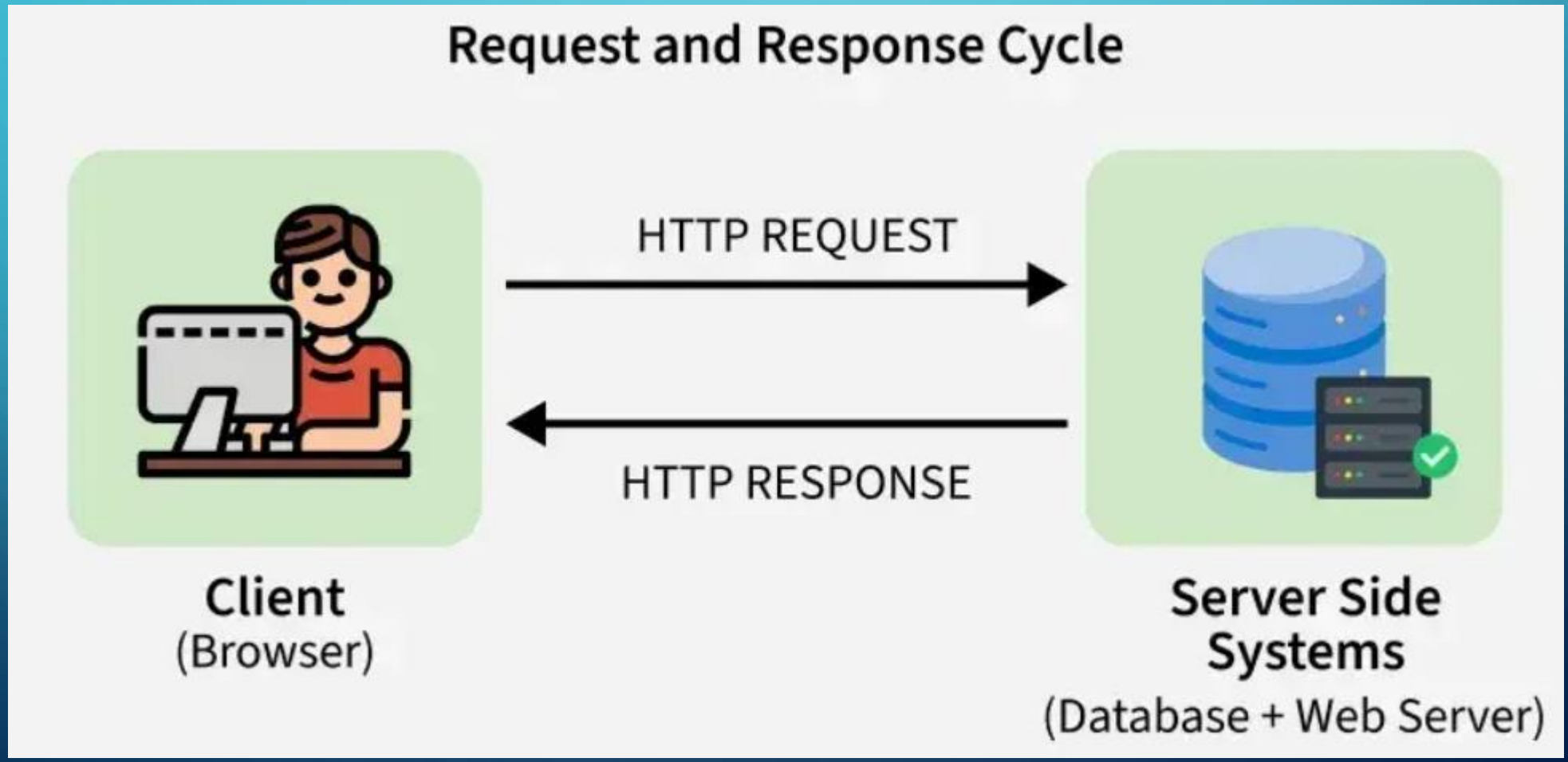
PLAYING ANIMATION

SAVING USER DATA

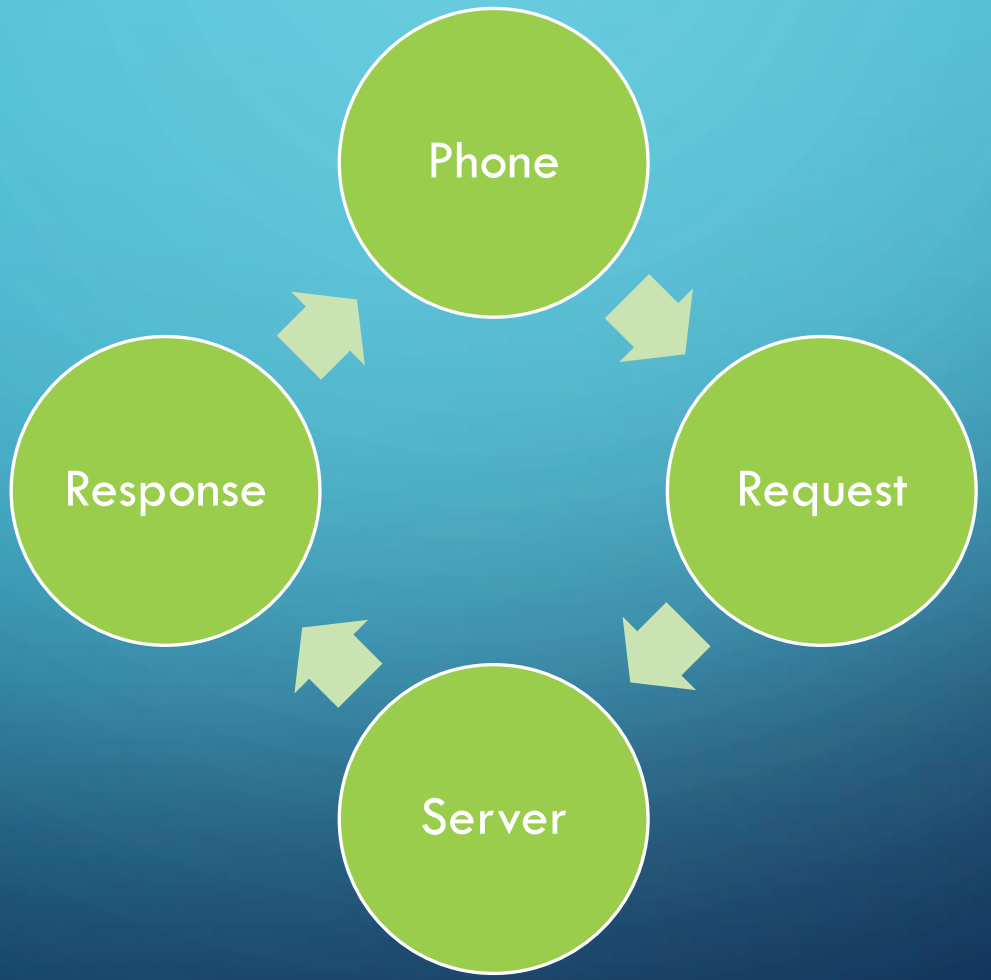
LOGGING IN

DARK MODE BUTTON

CLIENTS ASK. SERVERS ANSWER.

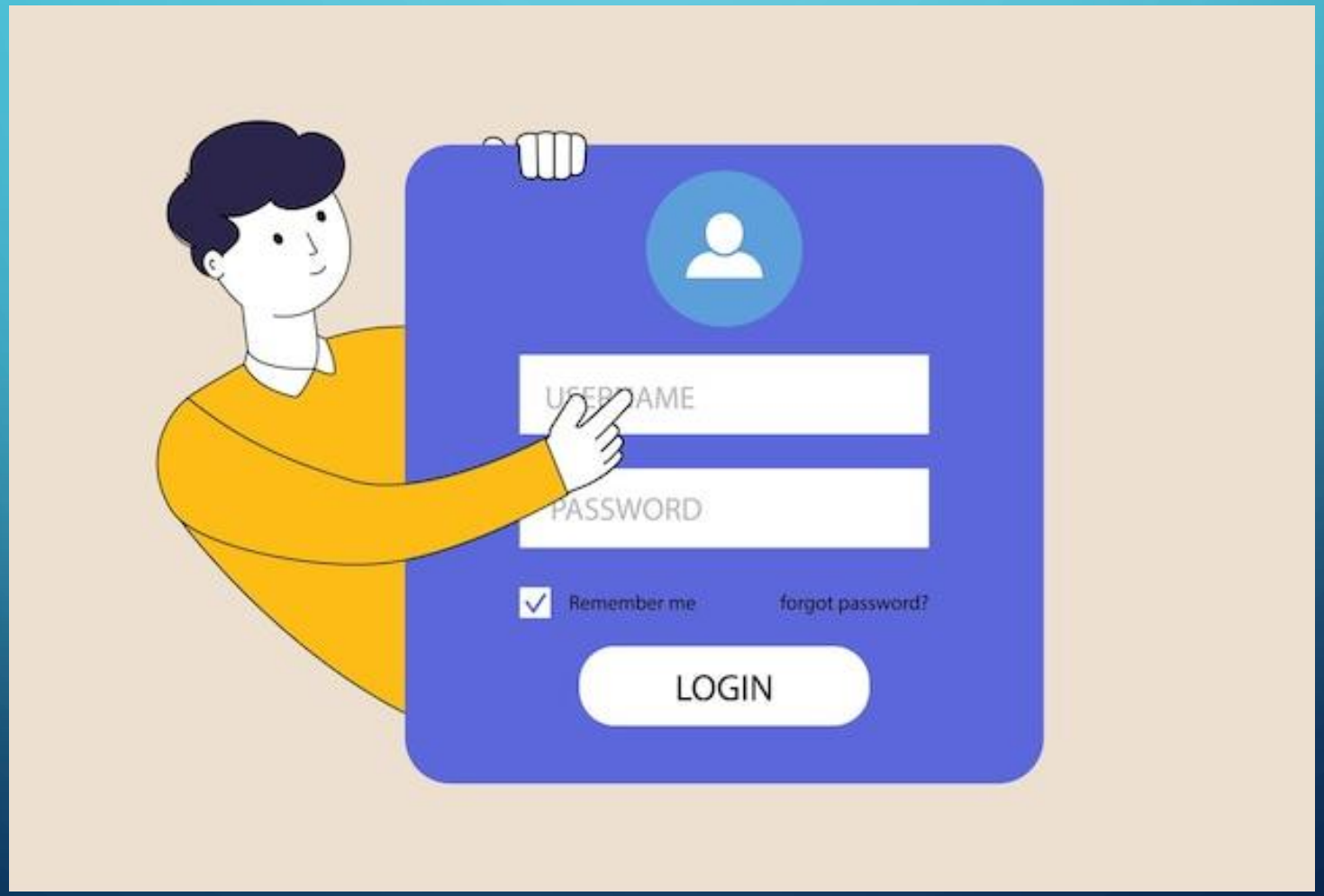


CLIENTS ASK. SERVERS ANSWER.

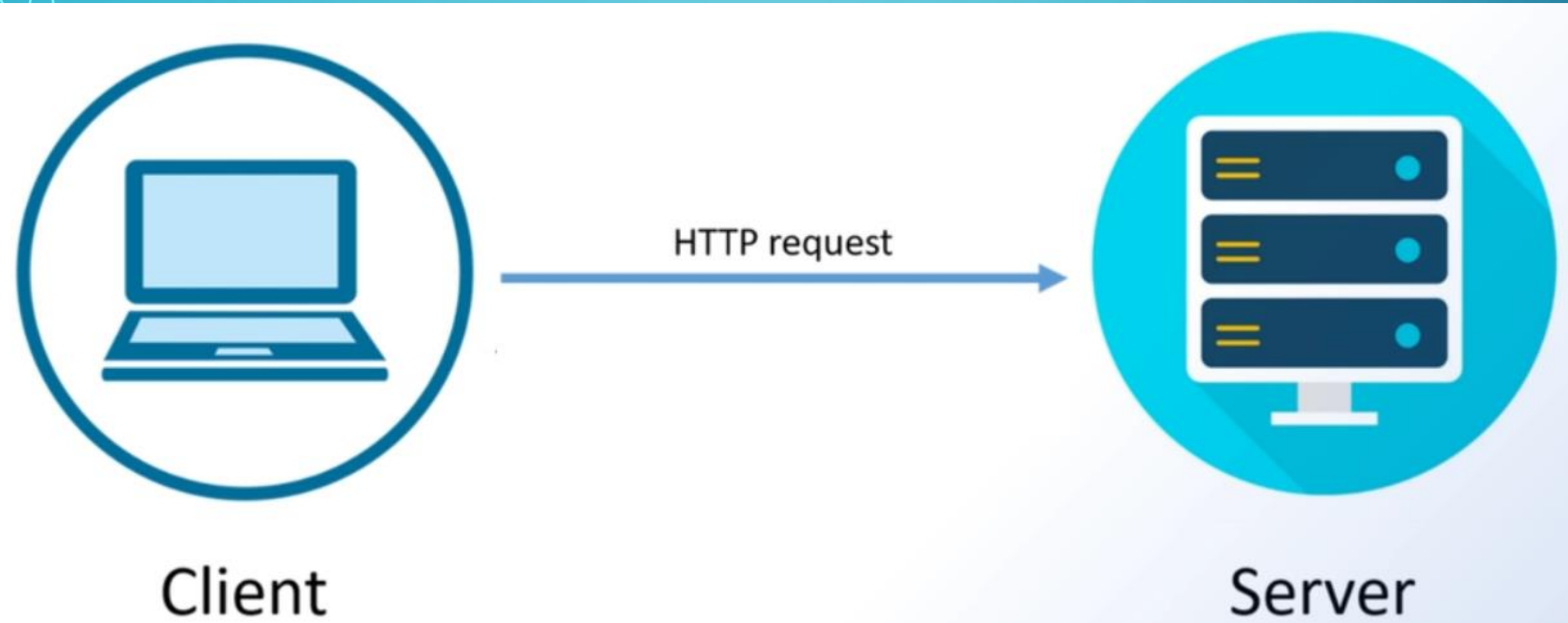


LOGIN STORY

1. USER ENTERS LOGIN INFORMATION

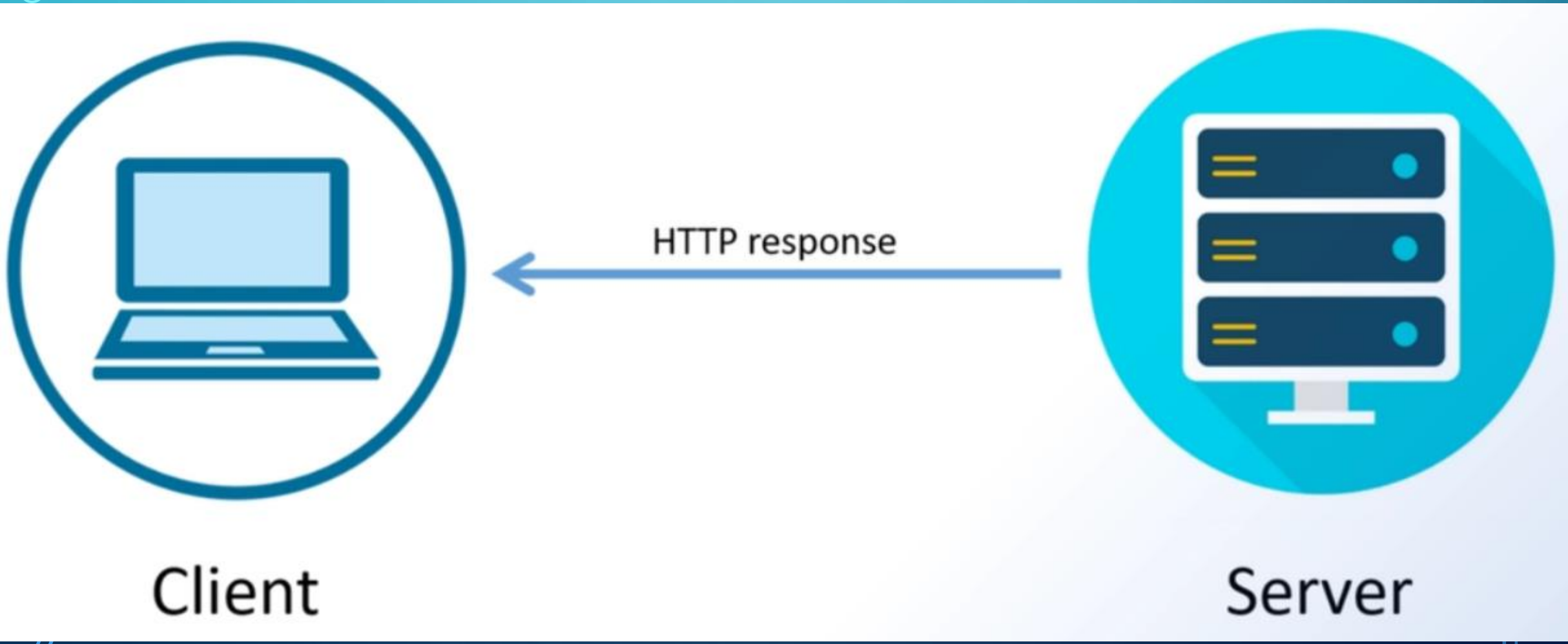


2. CLIENT SENDS REQUEST

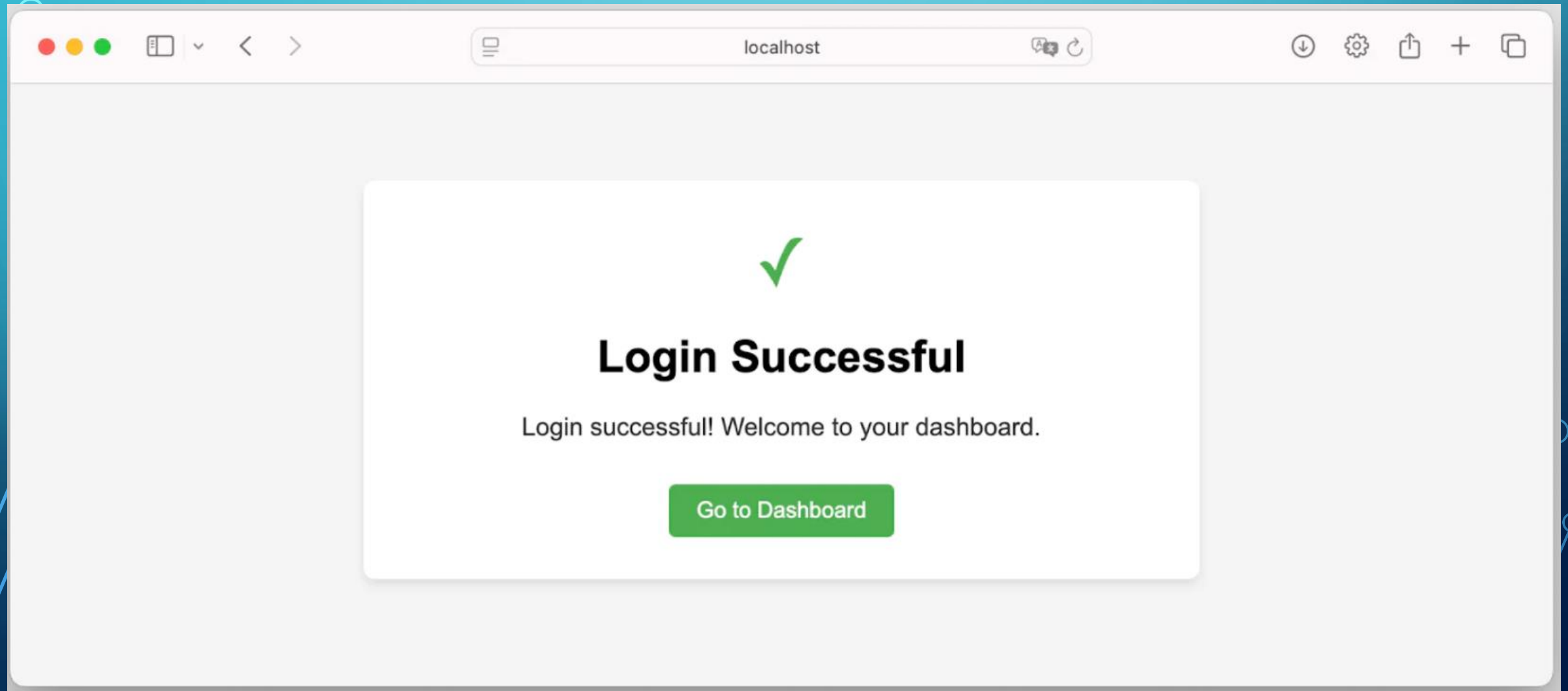


3. SERVER CHECKS DATABASE

4. SERVER SENDS RESPONSE



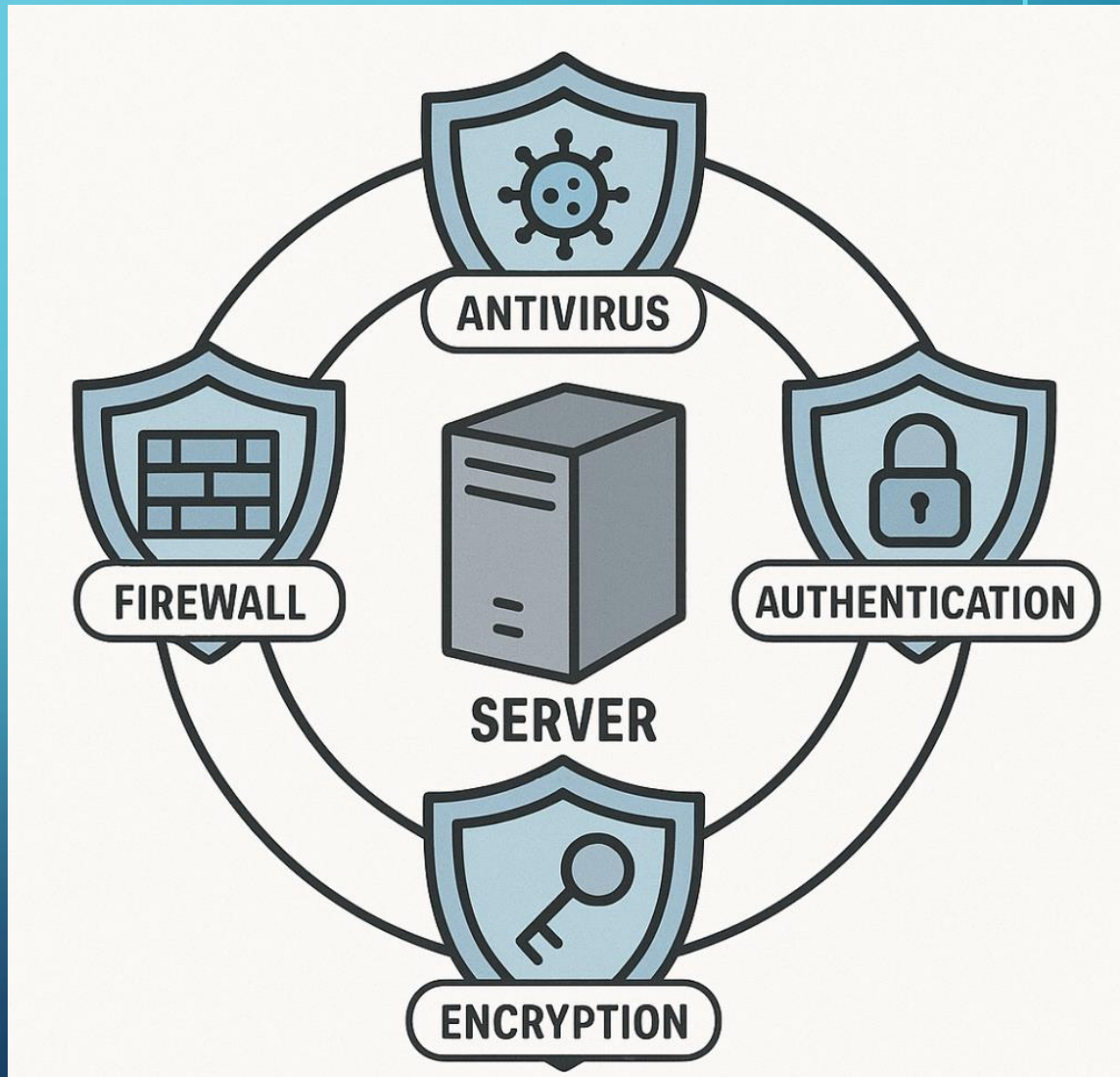
5. WEBSITE OPENS



WHY NOT DO EVERYTHING ON THE CLIENT?

"WHY USE SERVERS?"

- Servers help with:
  - Security
  - Storage
  - multiplayer systems
  - Accounts
  - online shopping

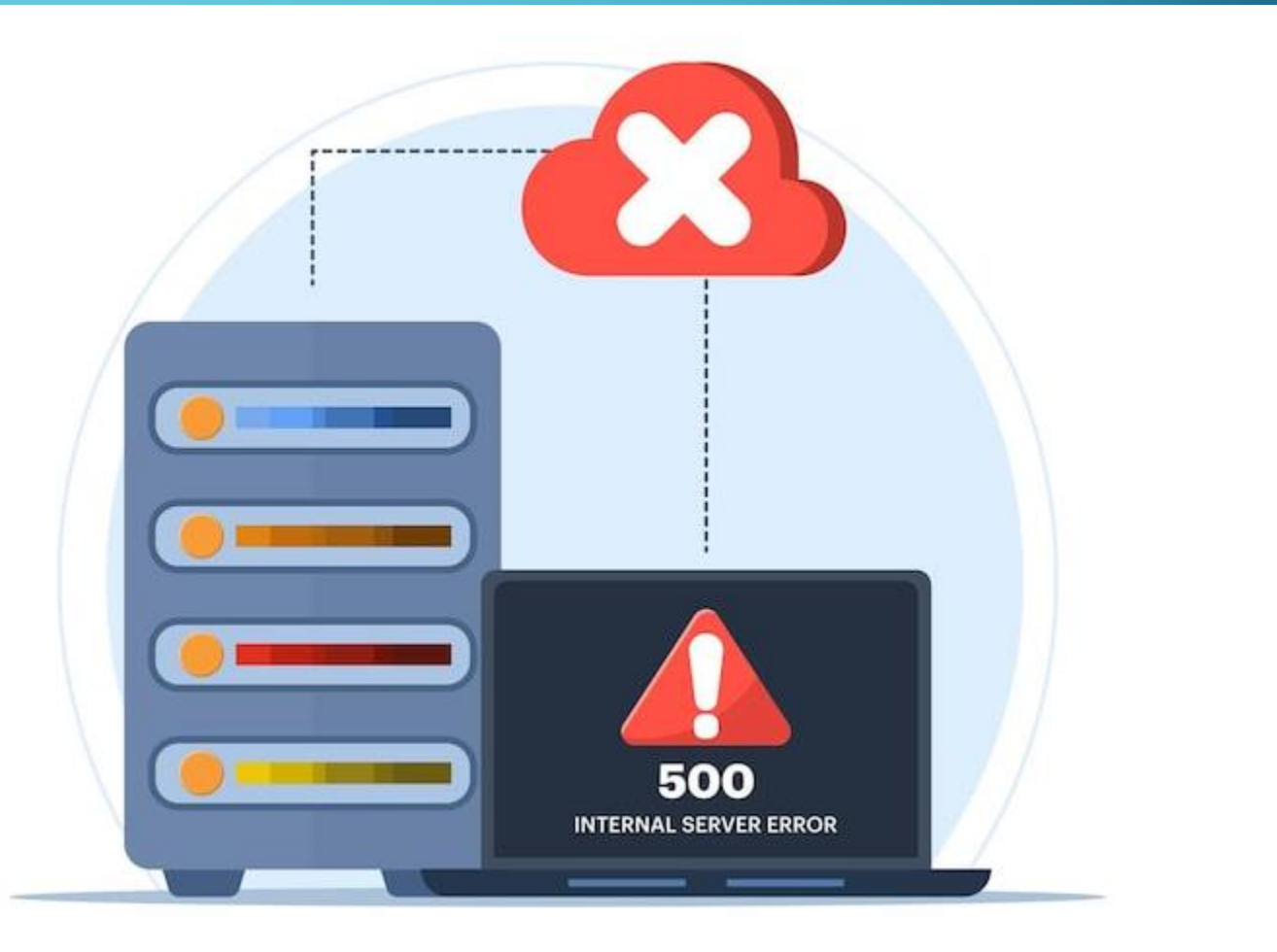


WHAT WOULD HAPPEN IF ALL PASSWORDS WERE CHECKED ON YOUR PHONE INSTEAD OF THE SERVER?

WHAT IF SERVERS DID NOT EXIST?

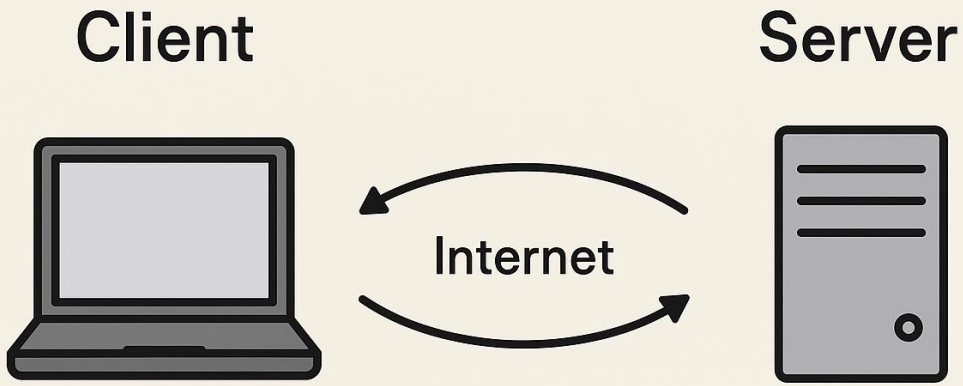
WHAT IF SERVERS DID NOT EXIST?

- No online games
- No TikTok accounts
- no shopping carts
- No Instagram
- No Discord



IMPORTANT REMINDER

- Client-side ≠ internet
  Server-side ≠ visible
- Some things happen:
  - on your device
  - some on the server
- Both work together.



GROUP ACTIVITY

ANALYZE THE WEBSITE (15 MIN)

- Each group will receive one website/application
- Discuss (5min) with your team what part of that website/application is a:
  - Client-side feature
  - Server-side feature
- Write the answers on a paper
- Each group will present their analysis (1 min/group)

ANY QUESTIONS?


Review

QUICK REVIEW

- What does the client do?
- What does the server do?
- Give one example of each.

THE END