

02. HOW WEBSITES WORK (CLIENT AND SERVER SIDE)

M3U1P2



WHAT HAPPENS WHEN YOU CLICK LOGIN?

Instagram

Phone number, email or username

Password



Log In

Forgot your login details? [Get help logging in.](#)

OR

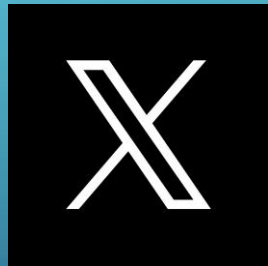
[Log in with Facebook](#)

WHAT IS WEB DEVELOPMENT?



WHAT IS WEB DEVELOPMENT?

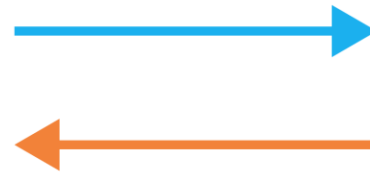
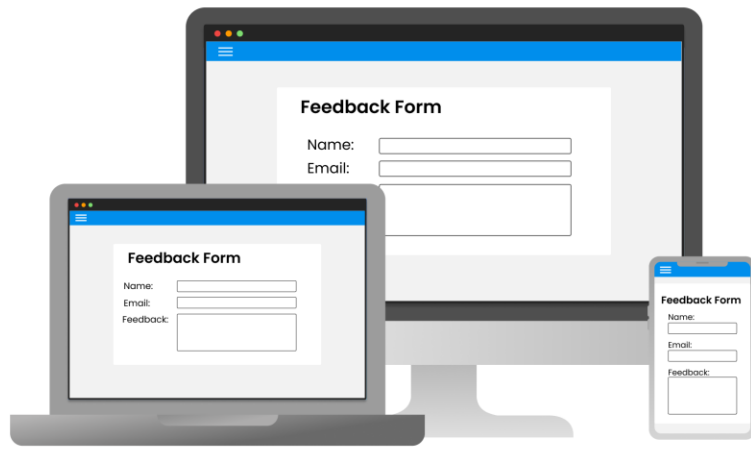
- Building websites and web apps
- Examples:
 - YouTube
 - TikTok
 - Shopee
 - Google Classroom



A WEBSITE HAS TWO SIDES

Client

What users see



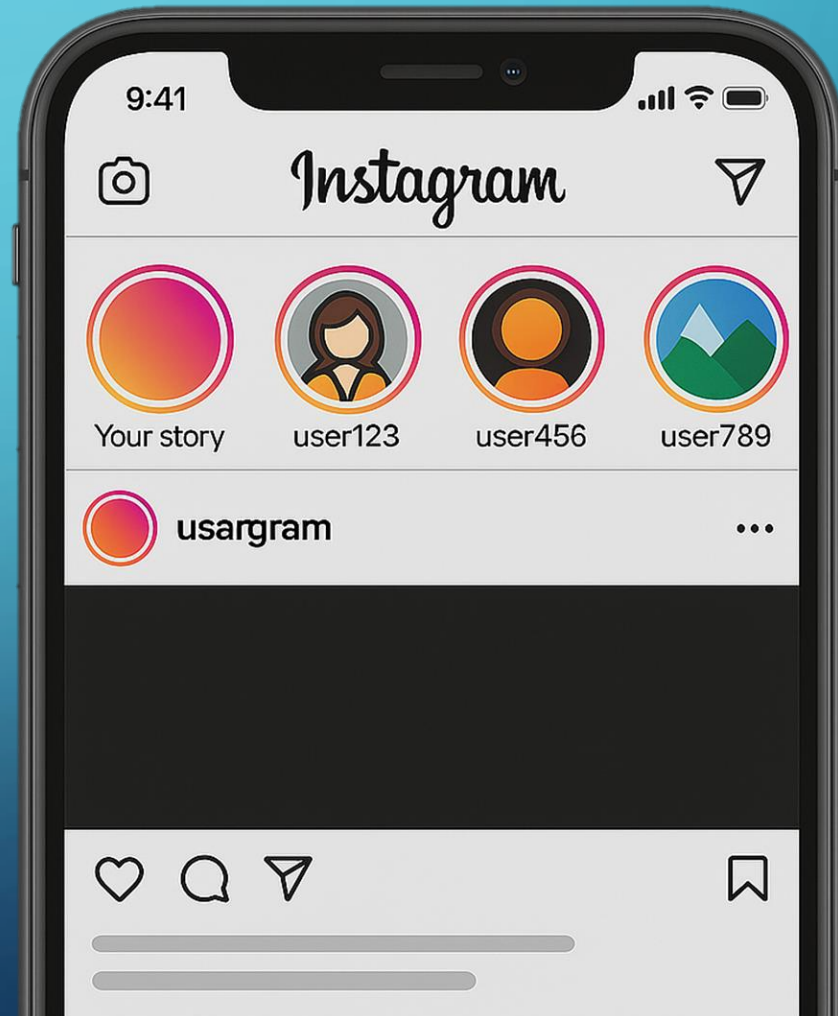
Server

What works behind the scenes



CLIENT-SIDE = YOUR DEVICE

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



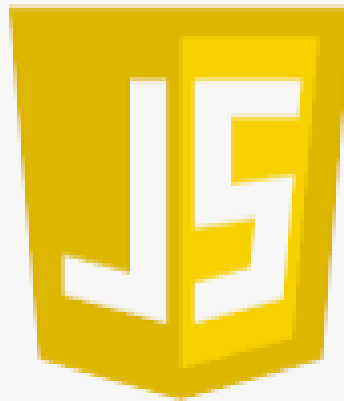
FRONT-END LANGUAGES

HTML



Structure

JS

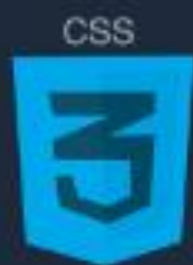


Interaction

CSS



Style



#House



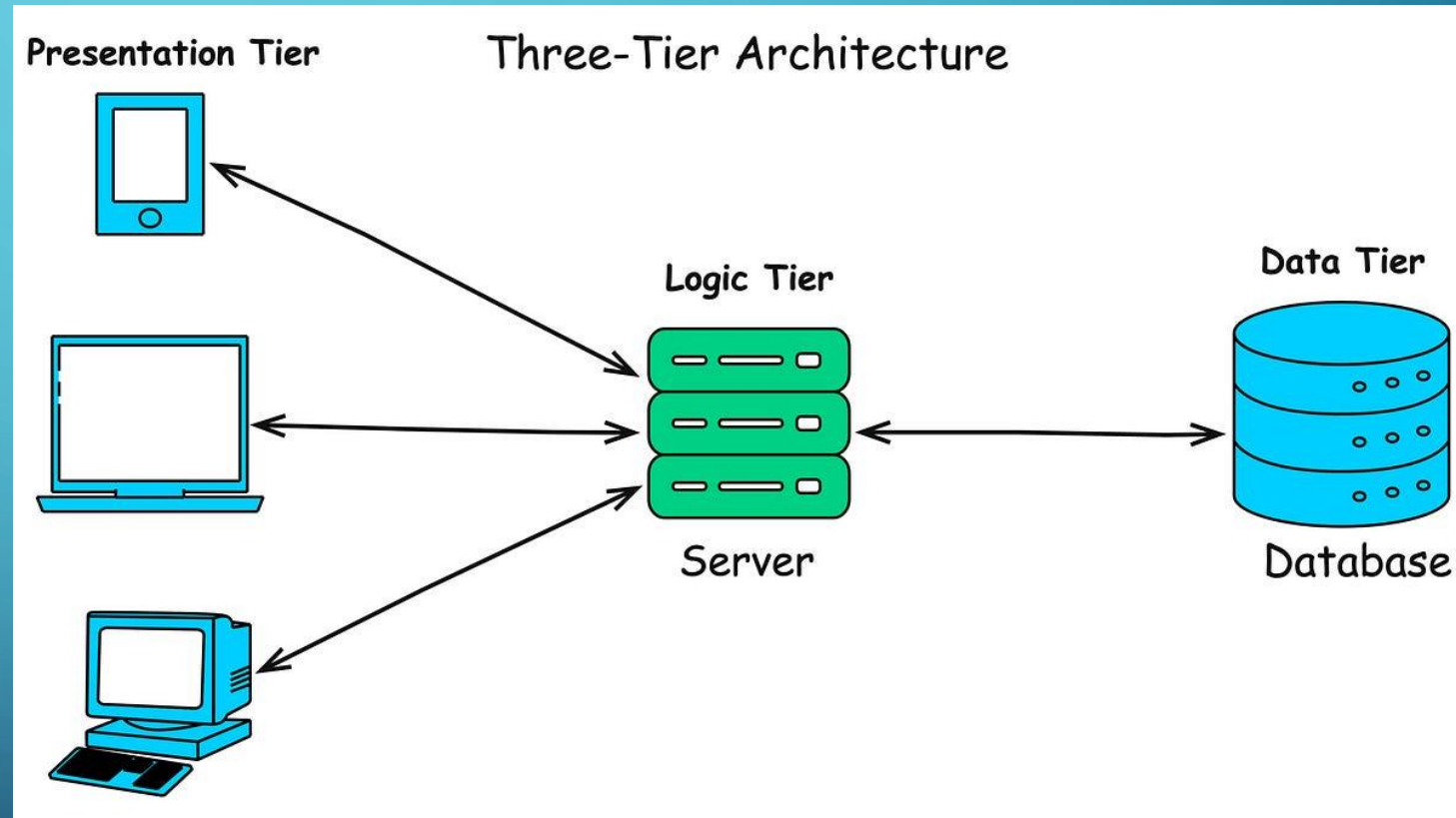
#House



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

Microsoft®
.NET



CLIENT OR SERVER?



SHOWING IMAGES



Client

Server

CHECKING PASSWORD

Client

Server

PLAYING ANIMATION



Client

Server

SAVING USER DATA



Client

The diagram features two large circles on a blue gradient background. The left circle is green and labeled 'Client', and the right circle is blue and labeled 'Server'. The background is decorated with white circuit-like lines and nodes in the corners.

Server

LOGGING IN

Client

Server

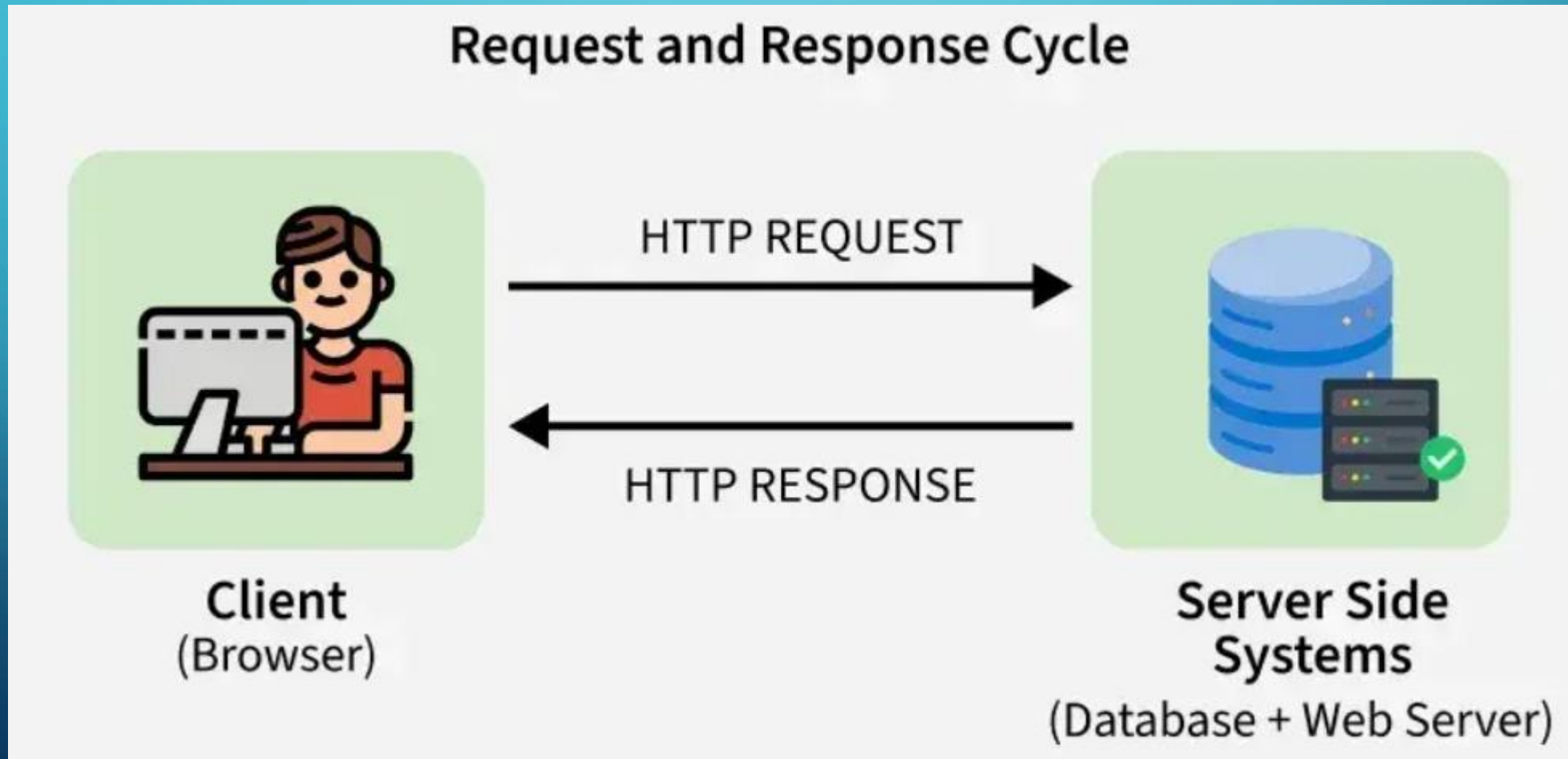
DARK MODE BUTTON



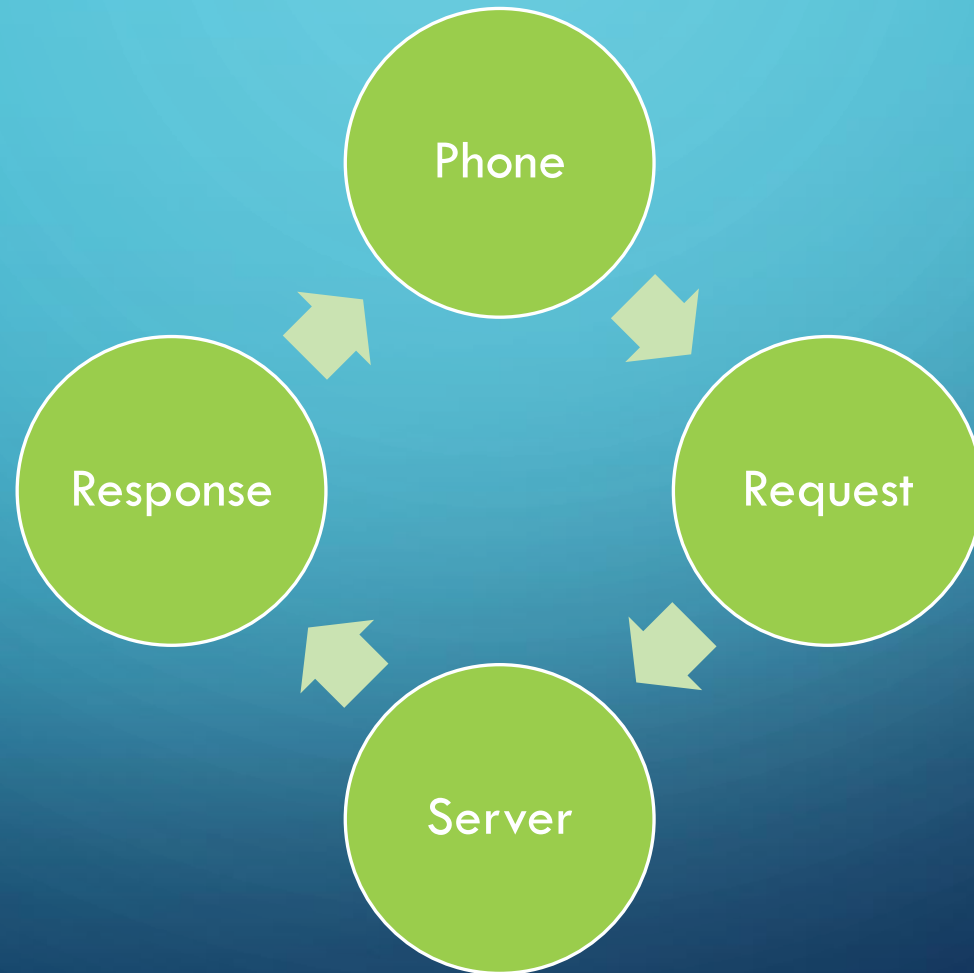
Client

Server

CLIENTS ASK. SERVERS ANSWER.



CLIENTS ASK. SERVERS ANSWER.



LOGIN STORY

LOGIN



remember me

Sign In

[Forgot Password](#)

1. USER ENTERS LOGIN INFORMATION



2. CLIENT SENDS REQUEST



Client

HTTP request



Server

3. SERVER CHECKS DATABASE



4. SERVER SENDS RESPONSE



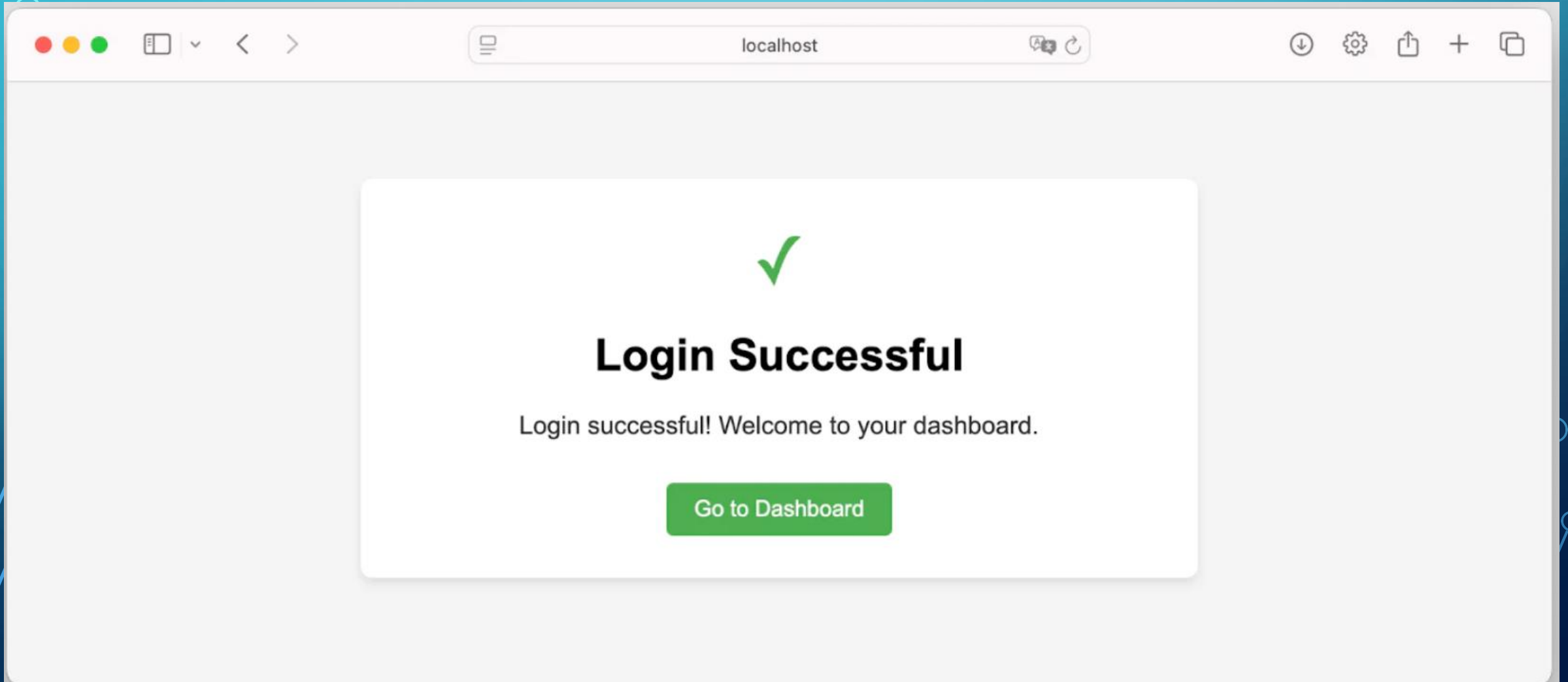
Client

HTTP response



Server

5. WEBSITE OPENS

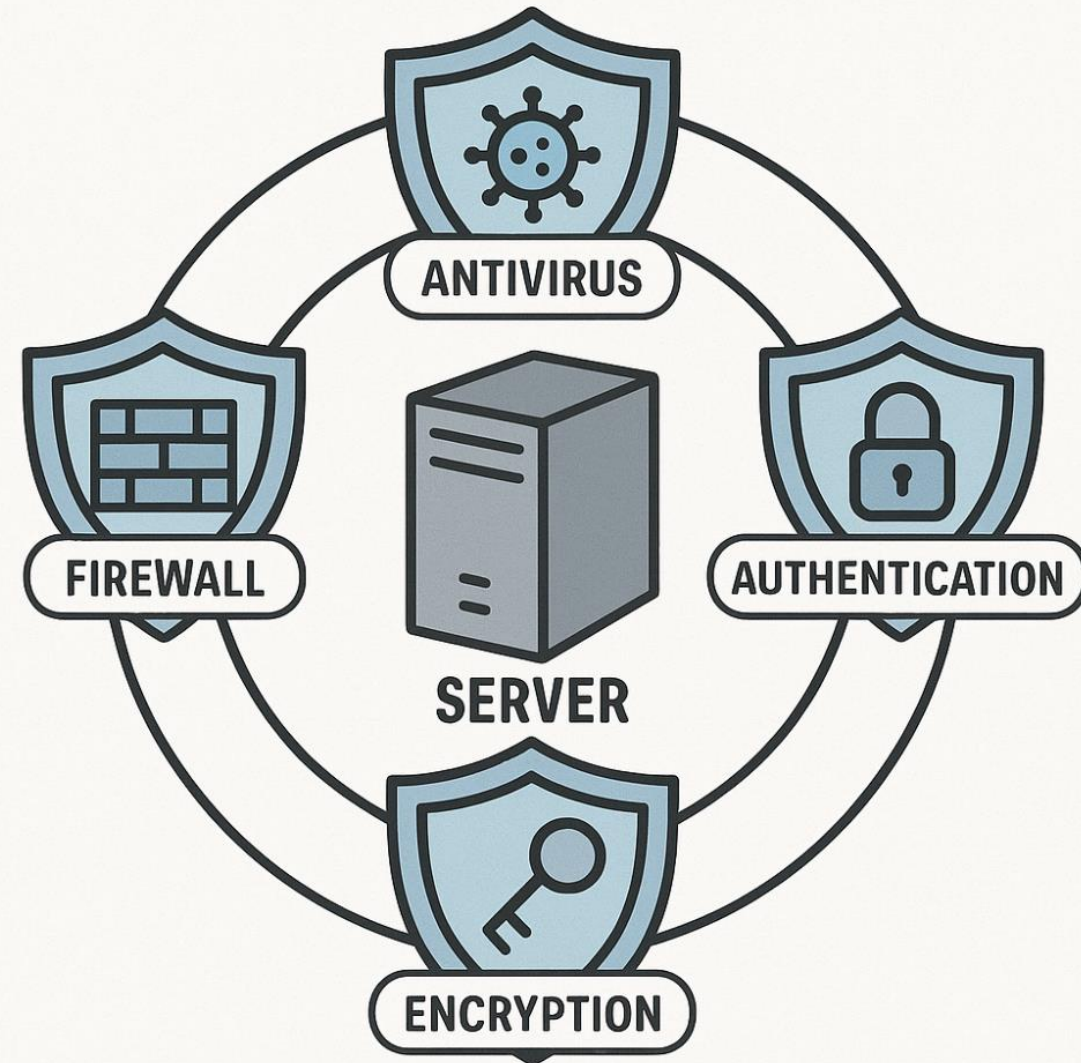


WHY NOT DO EVERYTHING ON THE CLIENT?



“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?



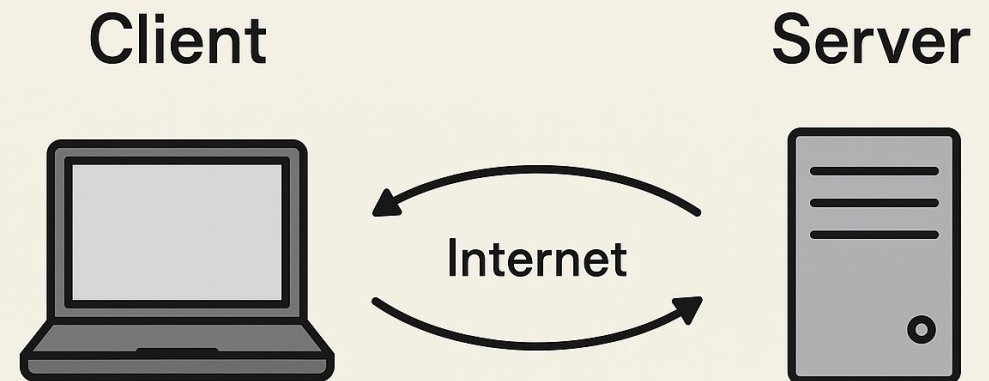
WHAT IF SERVERS DID NOT EXIST?

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



IMPORTANT REMINDER

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



GROUP ACTIVITY



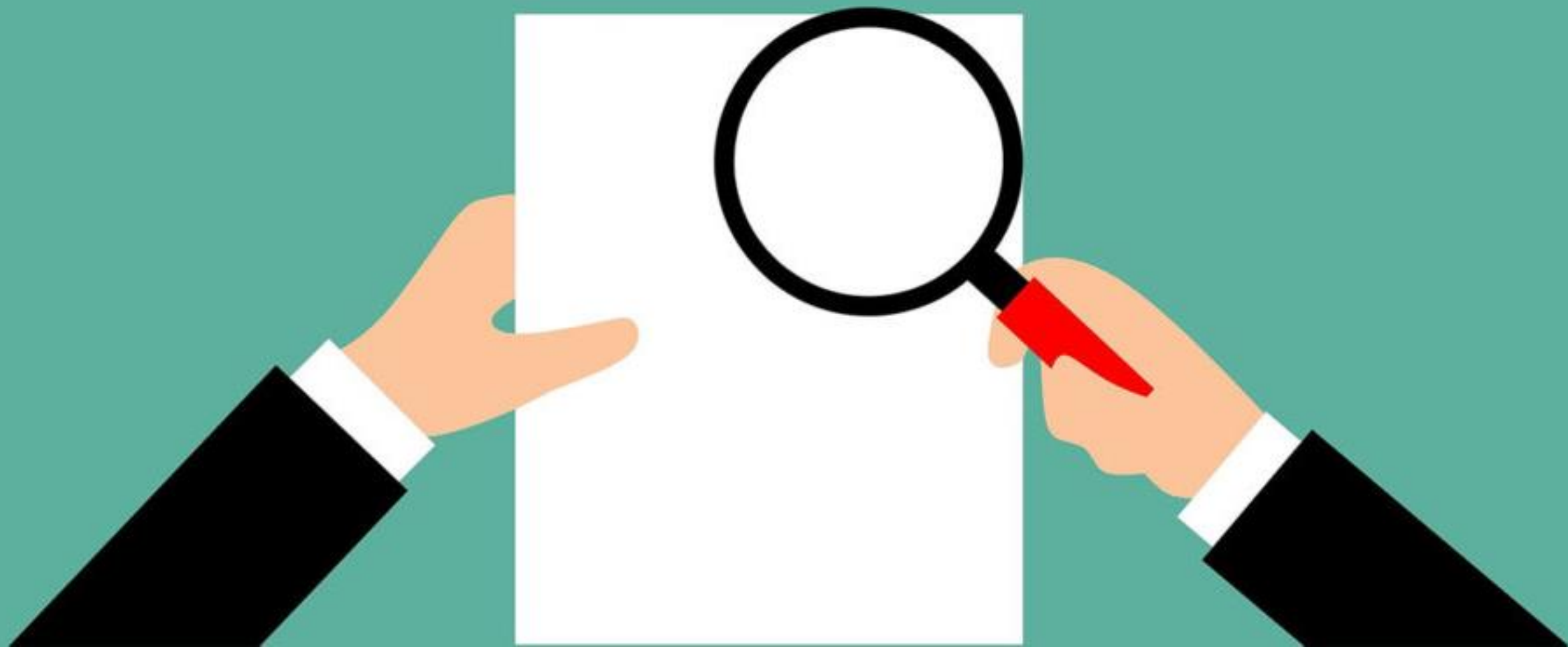
ANALYZE THE WEBSITE (15 MIN)

- 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)

The background is a dark blue gradient. In the corners, there are white line-art graphics resembling circuit boards or neural networks, with lines connecting to small circles.

ANY QUESTIONS?

Review



QUICK REVIEW

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



THE END