Platform Architecture and Infrastructure

Definitions

Platform → Architecture → Infrastructure
↓   ↓   ↓
Internet → Client /Server → Components
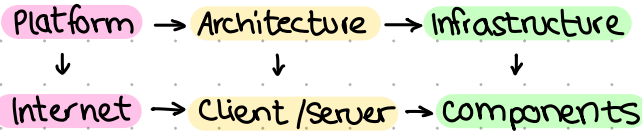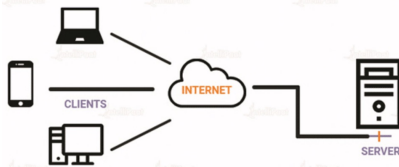
Clients/server - Architecture

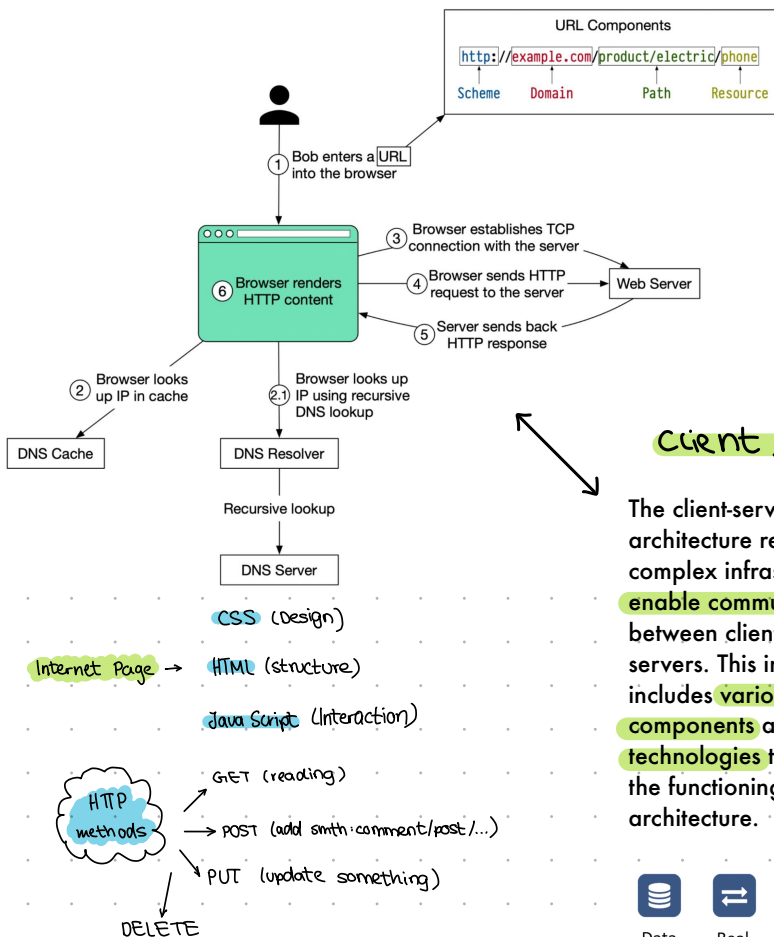...computing model that describes the relationship between two types of devices/programs : clients and servers
→ widely used in computer networks + distributed systems

CLIENTS — INTERNET — SERVER

Investigation on client/server architecture

What happens when you type a URL into your browser?

| What happens when you type a URL into your browser?

URL Components

http: // example.com / product/electric / phone
Scheme   Domain   Path   Resource

① Bob enters a URL into the browser

③ Browser establishes TCP connection with the server
④ Browser sends HTTP request to the server
⑤ Server sends back HTTP response
⑥ Browser renders HTTP content
Web Server

② Browser looks up IP in cache → DNS Cache
2.1) Browser looks up IP using recursive DNS lookup → DNS Resolver
Recursive lookup → DNS Server

CSS (Design)
Internet Page → HTML (structure)
Java Script (Interaction)

HTTP methods
→ GET (reading)
→ POST (add smth: comment/post /...)
↘ PUT (update something)
DELETE

https : s means secure

Cache : browser hist. cookies

domain needs to be converted in IP so computer understands

Websiten haben Ihre eigene IP - Adresse

Geräte haben IP - Adresse, die sich ändert

Client /server Infrastructure

The client-server architecture relies on a complex infrastructure to **enable communication** between clients and servers. This infrastructure includes **various components** and **technologies** that support the functioning of the architecture.
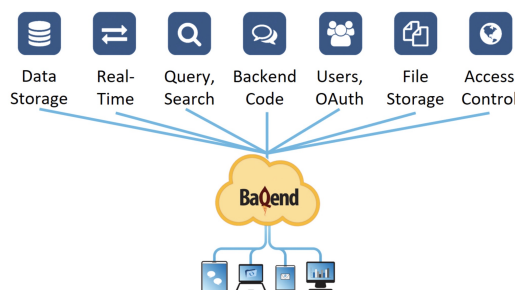
TCP / IP

Application Layer
Transport Layer
Network Layer
Network Access Layer

Data Storage   Real-Time   Query, Search   Backend Code   Users, OAuth   File Storage   Access Control

BaQend