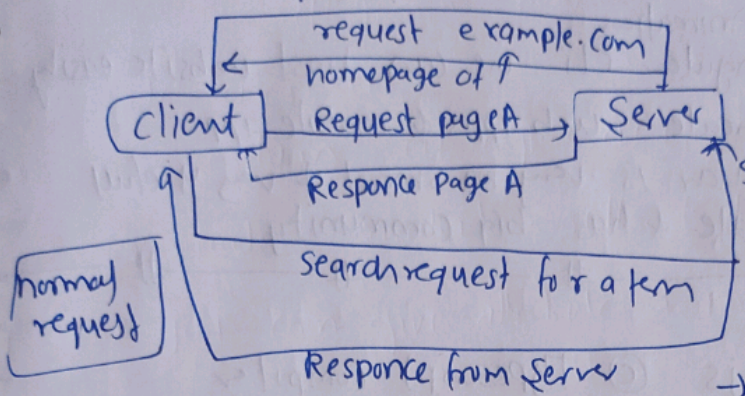
Angular SPA ⇒ single page Appln

Single page appln

→ normal website need to send multiple request as content is spread



⊙ multiple page requests going to Server

⊙ client get new data continuously so it is reloading many times

→ multiple request need more bandwidth

Ex: amazon.com

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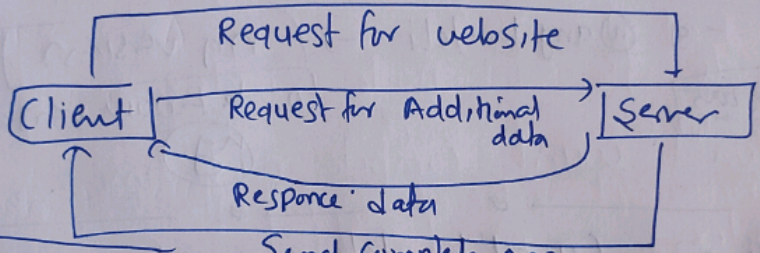
for SPA Single page Appln



Data request ↳ JSon

Page request are expensive than data request

Ex: youtube.com

Send complete APP Package (so html, css, JS all send at once)

⇒ so for different routes data already send

⇒ so only additional data is asked by client & that only send by Server this avoid large request intercommunication

⊙ Data requests are ~~cheap~~ cheap than page requests.

In developer tool of browser you can see network activity

⇒ In normal page ~~multiple~~ same resources requested multiple no. of time which make ~~hard to detect~~ system non-optimised

⇒ Reloads also reduces which make websites fast & efficient at same time

⇒ with Angular we can produce single page Appln (SPA)

Why angular ?

→ It is a frontend framework, has features like:
Ⓐ Protractor Ⓑ Forms Ⓒ PWA Ⓓ Augury Ⓔ lang-Service etc

→ Build on top of Typescript
⇒ ~~EDIT~~ ⇒ support HTTP and AJAX request
⇒ support Animation
⇒ with angular cli we can host website easily

Angular can used to create web apps & mobile app
⇒ Basically angular is very ~~no~~ smart & very useful
⇒ Created by google & has big community

Setup Enviroment

Ⓐ Browser Ⓑ Nodejs Ⓒ Typescript compiler

`node -v` `npm -v` to check versions

npm install -g typescript

`tsc -v` for typescript

npm install -g @angular/cli → `ng version` to know version

~~ng version~~

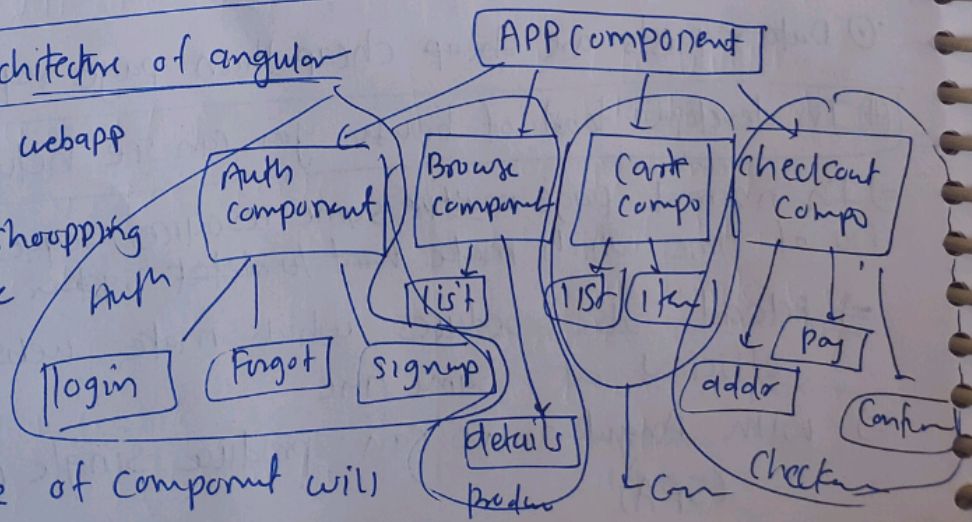
ng

- Augury extension (used to debug angular appln)
- Auto import plugin
- Stackblitz ⇒ online development toolkit ⇒ websites
- codesandbox.
- NG-Run

Architecture of angular

the angular webapp

Say a shopping page

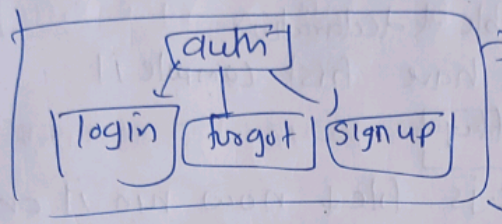


So such tree of component will form for a webapp

⇒ All things on webapp created by angular is related to angular

→ Each component is sections and in angular we can create each component seprately

⇒ Architecture of angular app depends no. of modules and each module has own component



→ ~~Auth comp module have auth, login, forget signup component~~

→ Auth module.

⇒ so a app is made up of different modules

⇒ Each module has some directives, routing and other configurations

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Build first angular application

to create new angular app

⇒ ng new appName => (take some time)

⇒ ng serve → to start running your angular app

⇒ Say yes for angular routing

⇒ use CSS for styling

① packet.json contains scripts that is commands that we can run

Ex: ng serve | ng build | ng test etc

↓

build the appln and compile code

ng serve --host 0.0.0.0 --port 4201

↑ to run ng serve on specific port

g => generate c => component p => pipe s => service

cl => class i => interface e => enum

m => module d => directive S => Service