

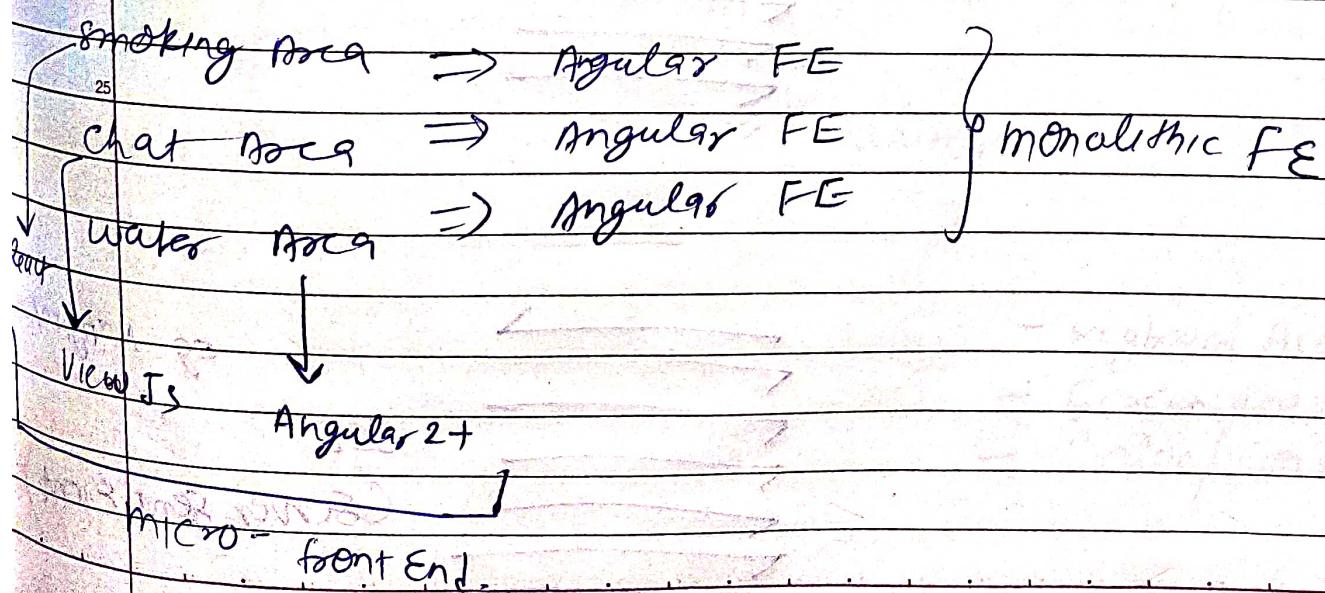
Front End System Design Components.

- video 3
- Architectural Pattern
- communication Protocols
- Availability
- Accessibility
- consistency
- credibility & Trust
- logging & Monitoring
- Databases
- Caching
- Security
- Performance & optimization
- Testing

MICRO - FrontEnd Architectural Pattern.

- all in same technology \rightarrow monolithic FE

samosa don't ex:-

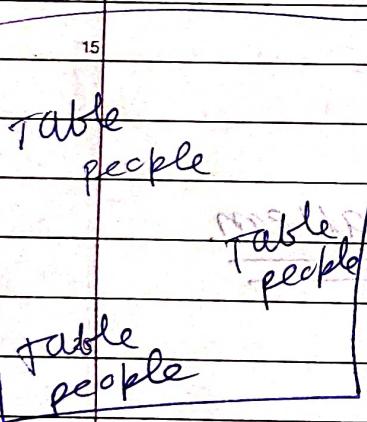


1. Architectural Pattern

To achieve this in FE we use

- IFrame
- Web Component
- module Federation (React)
- microAPP / Route based

2. Communication Protocols



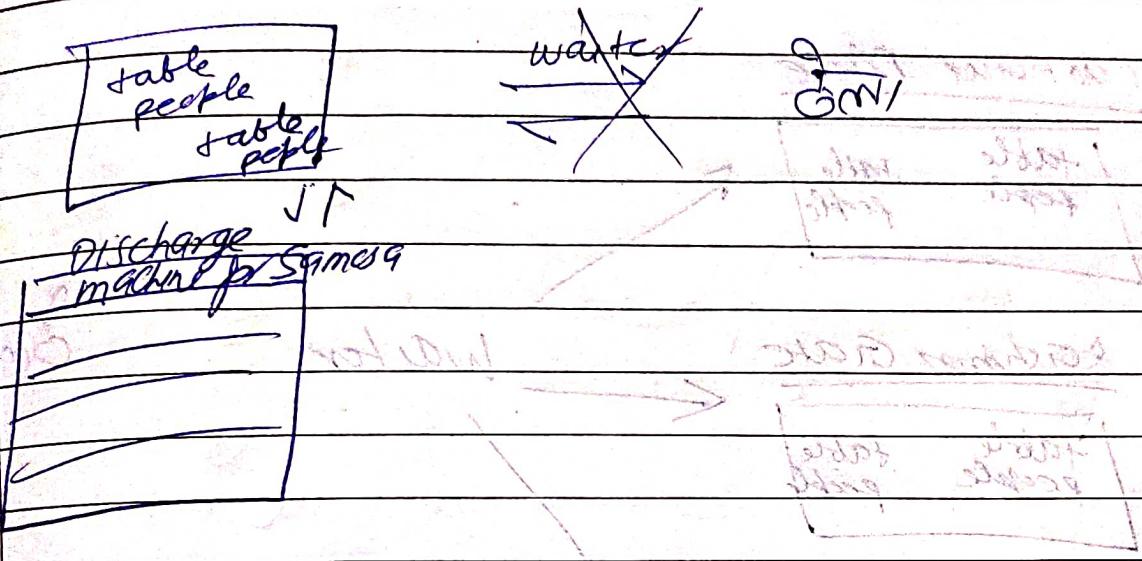
Long polling
eg Analytics data

WebSocket
eg chatting

SSE
(Server sent Event)
In3 meat

Availability

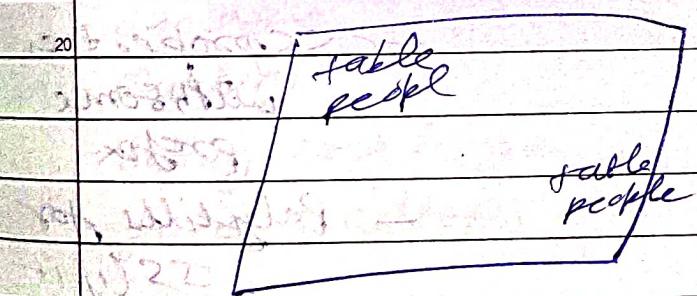
Samosa. Ob1 Example



offline mode

→ Service worker

Accessibility



language

- hindi
- english
- disability
- speak/ hear / color

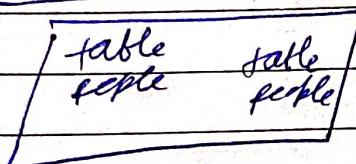
waiter

- Keyboard Accessibility
- Screen reader
- Color/ contrast

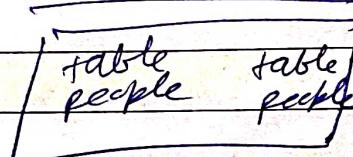
5. Consistency

Samosa-wala ~~Don't~~ example

5 Carnaut Place

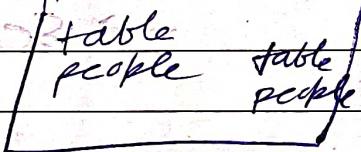


10 Rashmin Gate



Waiter

15 Chadani Chowk



To support in
different browser

- CSS properties
with some
prefix

- Polyfills for
JS (if it
break)

- Design System

material fluent
UI

Credibility & Trust (SEO)

Paid Ads

Self Promotion

- title
- description
- meta
- content
- performance

→ On-page
→ off-page

- backlinks
- Ads

Logging & monitoring

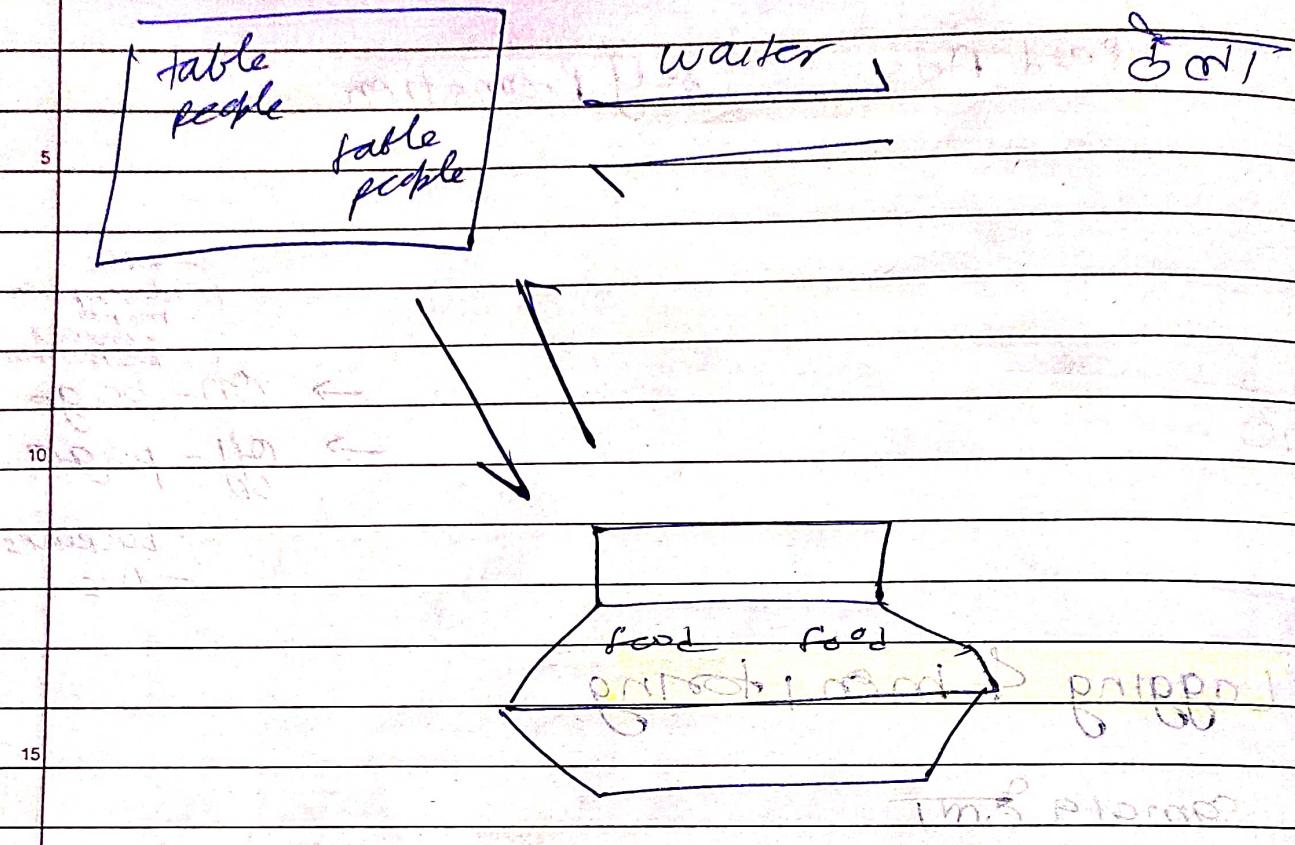
Samosa Gen

- like dislike
- hygiene
- damage
- quality
- sitting area large
- food availability

- Error logging
- User tracking
- User activity
- feature usage monitoring
- Info/capacity monitoring

8.

Databases & Caching



- HTTP Caching

(Static Images
JSON, HTML)

- In memory

Caching

- Apollo Caching

- State management
(Redux, Context)

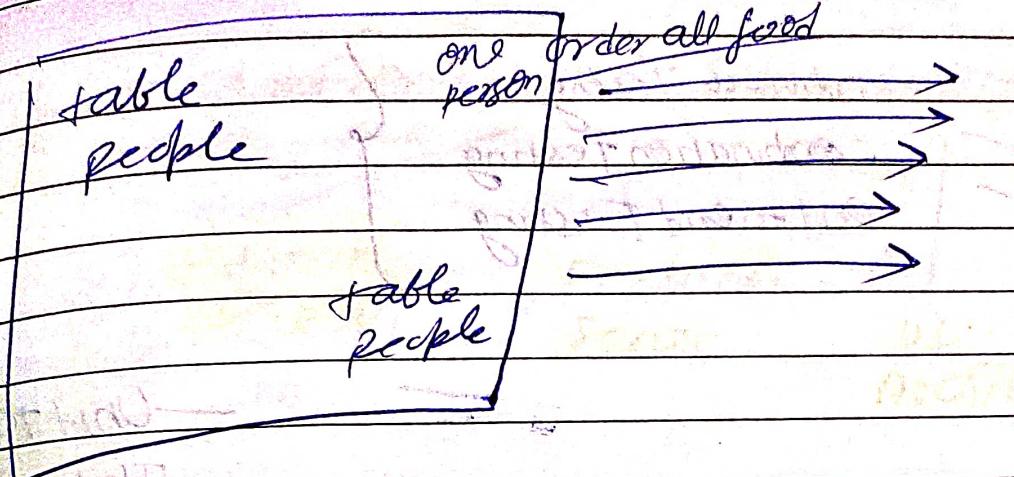
- local Storage

- Session Storage

- Cookies

- IndexedDB

Security



- DDOS
- Authentication
- Authorization

- CORS
- CSP
(Content security policy)

- man in the middle

Performance & Optimization

- serve water
- see option
- deliver priority items.
- pac-cookies

- Assets optimization
- Delivery option
- Build assets
- SSR
- Service worker
- Web vitals
- Perceived performance

11.

Testing

- TCAP ✓ Individual Testing
- Sameqa ✓ Combination Testing
- chai ✓ End to end Testing

— Unit Testing

— Integration

TC Testing

— End to End Testing

Testing.

10

15

25

30

Testing
Library

Test

mochs

chai

cypress

Selenium (ETE)

Protractor

Playwright

test design → automation