17.(BONUS) Machine Coding Interview & Building YouTube

00:00 - Intro to Youtube features

- Requirement Clarification
- Features
- Tech Stack
 - Redux
 - Tailwind
 - React Router DOM
 - Bundler
 - Jest, React-testing

08:00 - 17:37 => Interview Tips & Diagram (Mock UI)

19:18 - npx create-react app my-youtube

21:00 - Installed Packages Explanation

24:35 - reportWebVitals.js

25:45 - <React .StrictMode>

28:17 - Command - npm i -D tailwind CSS

31:10 - 3 command should be there in App.css

- @tailwind base
- @tailwind components
- @tailwind utilities

36:38 - Rough blueprint of what we need to build

- -Head
- Body
- Sidebar
- Menultems
- MainContainer
- ButtonList
- VideoContainer
- VideoCard

39:00 - Coding Starts

42:22 - Building Header Component

46:34 - Using CSS Grid

- Styling Header Component using Tailwind CSS

54:22 - Building Search bar

56:28 to 01:06:56 - Building Side Bar

01:09:06 - npm i @reduxjs/toolkit

- Npm i react-redux

01:11:00 -Till 01:15:20 -Building Redux Store

01:16:40 - Toggle Functionality

01:19:20 - Cursor Pointer

01:21:30 - Subscribe to the store

01:22:35 - Coding Pattern: Early Return Pattern

01:25:25 - Let's build Main Container

- Button Component
- ButtonList Component
- Props Usage

01:31:25 - Asking question to interviewer (APIs or Hardcoded)

01:33:30 - YouTune APIs and YouTube API Keys

01:38:12 - API Call - Axios v/s Fetch

01:45:00 - UseState Hook

01:47:45 - Tips: Don't use Map function at the programming

01:52:00 - Developing Video Card Component

01:58:00 - Calling 50 videos through API

02:01:00- "India" - Regional Code to get popular youtube videos in India

02:02:00 - Routing - npm react router-dom

- 02:07:00 Report of explanation about Routing once again
- 02:10:46 Start building "watchpage"
- 02:13:40 make "home" as clickable functionality
- 02:19:00 Usage of useSearchParams
- 02:21:06 till 02:27:00 Making WatchPage video fullscreen
- 02:28:00 API for Youtube "comments"
- 02:28:22 -Tips for machine Coding interview

END

18. (Bonus) Advanced Features in YouTube Project

- 00:00 Higher Order Components
- 11:21 Interview Question Build Search Functionality, Search API
- 21:21 Debouncing
- 30:00 Google Search API
- 33:50 YouTube Search Suggestions API
- 35:30 Make an API Call
- 36:26 Let's build Debouncing
- 44:45 Make an API call after every key press that if the difference between 2 API calls is < 200ms, decline the API call
- 55:00 How many times API has been called?
- 01:03:03 Building Youtube Search Suggestions bar
- 01:24:50 usage of "Data Structures" in Front-end
- 01:32:00 Spread Operator in JavaScript [ES6]

- 01:36:00 Creating A Store
- 01:44:00 JavaScript Merge Objects (object.aasign())
- 01:49:49 We have achieved a well organized/optimized search ["debouncing", "cache"] features
- 01:55:20 Developing LRU Cache(Last Recently Used)

01:59:00 - Interview Question

- N- level nested components(Reddit Example)
- Comments Component

19.(Bonus) Wrapping up YouTube Project

00:00 - API key expired - Added new key

- Building Live Chat in Youtube
- Live Chat Infinite Scroll Pagination
- Challenges -
- Data Layer(DL) Get data live
- UI Layer Update the UI

11:15 - Data Live

- Web Sockets API Polling
- 16:50 Does Gmail is webSocket or API Polling?\
- 22:50 Youtube Comment section uses API Polling
- 41:33 Why page does not freeze despite so much API calls?
- 49:20 Building Chat bar
- 01:00:00 Never write "map" as the first. Later after multiple components working fine.

01:03:00 - Coding Polling(Live)

Don't forget to clear the interval or timeout (setInterval, SetTimeout)

01:05:52 - Lets build a redux store

Till 01:13:52 - Perfect mock example of writing Redux Code(Slice)

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01:14:00 - use "map"
01:17:00 - "Overflow hidden"
01:18:00 - Random name Generator
01:20:40 - Random Strings/ Text Generator
01:23:45 - Reverse Scrolling - "Unshift" in Redux code - "Splice" usage
01:30:00 - Build a Imput box to write a comment
01:37:30 - useState
01:41:00 - Prevent Default Function
01:47:00 - Push() instead of unShift()
01:52:05 - To make infinite Scroll
End
```