HTML 5

- !DOCTYPE
- Block & Inline elements
- Anchors & navigation
- Tags & Attributes
- Lists (unordered +ordered)
- Head & Title
- Forms & Input types
- Imports (script, style...)
- Images
- Events basics
- Headings
- Tables
- Semantic HTML
- Local & Session storage

CSS 3

- Selectors
  - basic
  - combinational
- Psuedo
  - selectors
  - elements
- Inheritance
- Display & Flex
- Specificity
- Box model
- Fonts & Typography
- Colors
- Positioning
- Units (absolute + relative)
- Overflow
- Float

JAVASCRIPT J5

- Primitives
- Scopes & Hoisting
- Arrays + methods
- Closures
- Objects + methods
- Functions + Arrow functions
- Try Catch & Error handling
- Execution context
- Variables (var, let, const)
- Strict mode
- Timeout & Interval
- Operators
- Type Conversions
- Classes

REACT

- Components & JSX
- Event handling
- Forms
- State & Props
- Class components & life cycle
- React.lazy
- . Functional components
- Context API
- Higher order components
- React internals
- Hooks
  - useState
  - useEffect
  - useRef
- Advanced & Custom hooks
- Portals
- Error boundaries
- Render props
- Reconciliation
- Forward refs

REACT ECOSYSTEM

- Zustand / Redux
- Framer Motion
- React Router
- React intl
- Styled Components / Emotion
- Jest
- Material React
- React Testing Library
- React Hook Form
- GraphQL
- Axios
- Apollo client
- Tanstack Query
- NextJS

HTML 5

- Meta tags
- Search Engine Optimization
- iFrame
- Responsive images
- Canvas
- Multimedia
  - Audio
  - Video
- IndexedDB
- WebGL
- SVG animations
- Workers
  - web worker
  - service worker
  - shared worker
- Web Components

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CSS 3

- Shadows
- Gradients
- Background images
- Masking & blending
- CSS functions.
- Media Queries
- Transforms
- Transitions
- Animations
- Flex advanced
- CSS Grids
- CSS sprites
- CSS variables & counters
- Container queries
- Subgrid
- BEM standards.
- Responsive web design

JAVASCRIPT JS

- "this" keyword
- Sets & Weaksets
- Template strings
- Maps & Weakmaps
- De-structuring
- Regular expressions
- Rest & Spread
- Symbols
- Callbacks
- Proxy & Reflect
- B Promises
- Iterators + Generators
- Async Await
- Dates & Intl
- Prototypes
- Modules
- JS
- Typed Arrays
- ES Next features

FRONTEND CONCEPTS

- Progressive Web App
- Web Security
- Object Oriented Programming
- Design patterns
- Functional Programming
- JAM Stack
- Reactive Programming
- Micro frontend
- Test Driven Development
- User Experience
- Accessibility & Usability
- CI/CD
- Web Performance
- Web Assembly
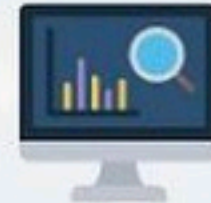- CSR, SSR, SSG, ISR
- Web 3.0

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RECOMMENDED TOOLS

Editor
VS Code

Browser
Chrome

Version Control
Git

Language
TypeScript

Task Runner
npm/Yarn

Commit Hook
Husky

Bundler
ViteJS/Webpack

Formatter
Prettier

Linter
Eslint

Linter
Stylelint

POPULAR TECH TOOLS

- SASS
- Tailwind CSS
- Bootstrap
- PostCSS
- AntD

- RxJS
- D3JS
- XState
- StencilJS
- Storybook

- Cypress
- Vitest
- Playwright
- Lit Element
- TestCafe

VueJS   Angular   Svelte   SolidJS   Preact

- ThreeJS
- Electron
- ESBuild
- Babel
- SWC

- Remix
- Docker
- Gatsby
- Astro
- NodeJS

- Deno
- Nx
- Lerna
- Turbo Repo
- SingleSPA

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WEB FUNDAMENTALS

- Client Server architecture
- Cookies & Sessions
- HTTP
- RESTful web services
- Communication
  - Polling
  - Web sockets
- Security
  - XSS
  - CORS
  - CSP
- XML & JSON
- Authentications
- Caching & compression
- HTTP 2.0

BOM & DOM

- DOM Tree
- Accessing DOM
- Attribute manipulation
- AJAX & Fetch
- Node creation & deletion
- Event Loop
- Element selectors
- Shadow DOM
- CSSOM
- Events listeners
- Critical Rendering Path
- Event bubbling & delegation
- Iterating Nodelist
- Browser APIs
- Browser Internals
- Events handling

VERSION CONTROL

- Git and Github
- Branching
  - Merge
  - Rebase
  - Workflow
- Clone
- Commit
- Pull & Fetch
- Log
- Cherry pick
- Push
- Stash
- Reset
- Restore
- Switch & Checkout
- Squash
- Revert
- Tags

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