Web Development RoadMap & Resources

For all my cuties,

From where to do

How much to do

Important points

Resources:

- MDN web docs
- W3Schools
- CSS-tricks
- Stack overflow
- YouTube

Step 1: Full Stack Development

Frontend

HTML, CSS

- HTML for structure and CSS for design
- SuperSimpleDevs (short and precise) / CodeWithHarry sigma dev 1-53 (a little time waste but more information)
- You just need to understand how it works and from where to refer and code.
- You don't need to memorize everything or anything or make notes for it, refer documentation/ resources/ ai.

JavaScript (JS) and DOM Manipulation

- To add logic to the project since HTML cannot implement logic and programming, DOM for selecting and manipulating HTML elements directly
- CodeWithHarry sigma dev 53-84 (enough for dev), for clearing interviews related to webdev, the following books to be read entirely: EloquentJS, YouDontKnowJS
- Just the basics required for frontend. promises, async await, promises, functions -> Advanced JS required for full stack. even more detailed knowledge and explanation required for clearing interviews.
- Prepare notes and read the books slowly and steadily for interviews (not obviously in a single go).

Backend

ExpressJS, NodeJS, NPM, EJS

- Till now, the websites we made using simple js were synchronous. For handling various functions asynchronously, Nodejs (a run-time environment that allows js to run on browser AS WELL AS on your server/device/system)

- For example, if amazon/flipcart were to use only js, in order to scroll or use any other functionality, you had to wait for all the images, data, etc. to load up from the database. Instead, Nodejs allows the fetching/loading functionality to work asynchronously and hence other features can be used meanwhile.

- Expressjs is a framework made for easy usage of nodejs.

- Node Package Manager that allows various libraries and packages that have been made and open sourced to be used easily by everyone. Includes various commands to be used directly in the terminal.

- EJS is used for adding logic and programming to html page itself using js syntax.

- CodeWithHarry sigma webdev 85-93 (includes api, routing, postman, middlewares, etc)

- Learn how to use, read, and understand libraries from https://www.npmjs.com/, the basic structure and features of express and the rest you would get while making projects.

- Create separate and organized folder for every feature and functionality in order to refer and use it in your real projects

APIs

- Includes RESTapi, middlewares, status codes, etc
- Covered in code with harry playlist but for better understanding, refer PiyushGarg Master Nodejs 12-17 (content would be a little repetitive)
- Get only the basic understandings of WHAT and HOW

Database

- SQL : PostgreSQL, non SQL : MongoDB. PostgreSQL is more in demand as of now but MongoDB is equally important as well. Learn both to my opinion.

- CodeWithHarry sigma webdev 94-97 for MongoDB and mongoose, DipeshMalvia for PostgreSQL.
- No need to learn the syntax -> refer official documentation or npmjs.com for code and functionality.
- Side by Side also learn how to use online server for these.

Authentication, Authorization and Security

- PiyushGarg Master Nodejs 23-26 (basics -> JWT, cookies, sessions), HelloWorld (passportJS, bcrypt, salting, hashing)
- PassportJs along with bcrypt are the most important and efficient as well as most commonly used. The traditional ways of JWT, cookies, sessions etc are complicated.
- Implement Google OAuth 2.o, signin with facebook/discord etc. using passport only.

Related Sexy frameworks and libraries

jQuery

- Used for simplifying code and easy manipulation in js, no longer in demand
- codeWithHarry
- No need to learn in depth, get a simple overview of it

BootStrap

- Provides pre-built components, used mainly for easy responsiveness of the website mainly.
- codeWithHarry
- Just refer to the official bootstrap docs and that’s it

TailwindCSS

- Used for building custom css components easily through low level utility classes.
- CodeWithHarry sigma webdev 98 and 101

// BootStrap provides readymade components but customization is complex and cannot be done in most cases while tailwind allows custom creation

Step-2 MERN stack

MongoDB done, Express done, React to be done, Node done

ReactJS

- reactJS is a JS library for frontend (user interface)
- ChaiAndCode entire playlist

NextJS

- ReactJS framework adding for more features as well as Backend Functionality
- ChaiAndCode entire playlist