

Web Fundamentals

1. The World Wide Web is a global information system made up of web pages that are linked together using hyperlinks.
2. The functional differences between a web page front-end and back-end are as follows:

Front-end is anything the user sees and interacts with, this can range from text, images, buttons.

Back-end deals with the server-side processes that enable the working of the webpage (e.g. server operations, facilitating data, fetching relevant results) none of which is visible to the user.

3. Using the “Google query” example the back-end handles everything after the user hits search and their query is sent to servers that then sort through databases fetching relevant information to then return to them.
4. The MERN stack is a collection of technologies used to create a web application:

MongoDB – this is a non-relational database which stores data as documents or objects (JSON based rather than SQL)

Express – un-opinionated web framework which streamlines the process of creating server-side applications using Node.js.

React – JavaScript based UI development library, offers powerful toolset for building both client and server side UI's.

Node.js – A runtime environment allowing JavaScript to not only be used in browsers but also server-side, expanding JavaScript's capabilities beyond browser environments.