**E-Learning Web Application Portal(Blueprint)**

PROJECT TITLE: E-Learning Web Application Portal.

AIM: To create an E-Library Website that offers learners interaction and collaboration on E-Learning content like Courses, Presentation, Podcasts and Tests.

FEATURES IN AN E-LEARNING WEBSITE:

* Responsive design
* Variety in learning resources
* Automated learning journeys
* Quality content
* Availability feature
* Collaboration of various learning tools
* Strong Reporting with Customization
* Easy Payment feature

E-LEARNING PORTAL DEVELOPMENT:

* Signup/Login
* Courses Available
* Existing User Login
* Admin Management
* Going Mobile and Apps for learning
* User-wise Course Report
* Notifications
* Online Assessment Tool
* Cart
* Payment Methods
* Certificate

LANGUAGES FOR INTERACTIVE AND DYNAMIC WEB PORTAL:

For this website, I would like to use the following languages for the Front-end, Back-end and Database:

FRONTEND:

Front-end development means ‘client-based’ development, where the focus is on what users visually see first in their browser or application. It is responsible for the look and feel of a site.

LANGUAGES :

* HTML: (Hyper Text Markup Language). It is the building block/skeleton for web pages. HTML mostly constitutes of ‘Elements’ and there ‘Elements’ are the building blocks of any HTML which is represented by ‘Tags’.
* CSS: (Cascading Style Sheets). It describes how HTML elements are to be displayed on screen or in other media. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.
* JavaScript: JavaScript is a text-based programming language used both on the client-side and server-side that allows you to make web pages interactive. Where HTML and CSS are languages that give structure and style to web pages, JavaScript gives web pages interactive elements that engage a user.
* React JS: React is a JavaScript library for building modern applications. React is used for handling the view layer and can be used for development of both web and mobile applications.
* Bootstrap: Bootstrap is a free and open source front end development framework for the creation of websites and web apps. The Bootstrap framework is built on HTML, CSS, and JavaScript (JS) to facilitate the development of responsive, mobile-first sites and apps.

BACKEND:

Backend development focuses on the side of a website users can't see (the server side). It's responsible for storing and organizing data, and ensuring everything on the client-side actually works. The backend communicates with the frontend, sending and receiving information to be displayed as a web page.

LANGUAGE:

* PHP: (PHP Hypertext Pre-processor) is a server-side scripting language that is used to create dynamic web pages that can interact with databases. It is a widely-used open source language that is specifically used for web application development and can be embedded within HTML.
* NodeJS: Node.js is a runtime environment that allows software developers to launch both the frontend and backend of web apps using JavaScript. Although JS underpins all the processes for app assembly, as a backend development environment, Node.js, differs from the frontend environment.

DATABASE:

* MySQL: MySQL is an open-source relational database management system (RDMS) based on Structured Query Language(SQL).

GIT AND GITHUB:

The most popular VCS is Git, along with GitHub, a site that provides hosting for your repositories and several tools for working with them.

To make the E-Learning website Portal responsive and interactive, I would like to use HTML for the structure of the website, CSS for styling and JavaScript for behaviour, for building fast and interactive user interfaces I would like to use React JS, and to make it more efficient I would like to use Bootstrap this is about front-end.

Then I would prefer Node.js as a run-time environment to run both the frontend and backend using JavaScript, for the Database I would prefer MySQL, for connecting HTML and Database I would prefer PHP.

For working on the project using the above tools, I would use Git for connecting with the team and working on the code, reporting issues with code, reviewing tools and managing the project.

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