Project Report

On

Portfolio Maker Web-Application

Submitted in partial fulfillment for the award of

Diploma in Advance Computing(C-DAC) from

C-DAC, ACTS (Hyderabad)



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1. Introduction of Project:

A Personal Portfolio Website developed using the MERN (MongoDB, Express.js, React, Node.js) stack serves as an online platform for individuals to showcase their professional journey, skills, projects, and accomplishments. This comprehensive digital portfolio provides an interactive interface for visitors to learn about the creator's expertise, view their work, and potentially engage in collaboration or hiring opportunities.

The integration of the MERN stack enables dynamic content management, seamless navigation, and efficient data storage, enhancing the overall user experience. Through this platform, creators can effectively present their abilities to a global audience, making it a crucial tool for personal branding and establishing a strong online presence in the modern digital landscape.

2. Product Overview and Summary

Purpose:

Showcasing Skills and Expertise: The portfolio website serves as a virtual resume, allowing individuals to highlight their skills, experiences, and areas of expertise. It provides a structured way to present their capabilities to potential employers, clients, or anyone interested in their work.

Project Display: The website allows individuals to showcase their projects, including software applications, designs, writing samples, and more. Each project is presented with detailed descriptions, images, and possibly even interactive demos, providing visitors with a comprehensive understanding of their work.

Networking and Opportunities: The portfolio website serves as a bridge for networking and professional connections. Visitors, including potential employers, clients, collaborators, and peers, can easily get in touch with the creator, fostering opportunities for collaboration, partnerships, and employment.

Technical Skill Demonstration: Building the portfolio using the MERN stack itself demonstrates the creator's technical skills. It showcases their ability to work with modern web technologies and frameworks, which can be especially appealing to potential employers or clients in the tech industry

Scope:

- Skill Highlights: Visual representation of skills using graphs or progress bars.
- Project Filtering: Categorization or filtering of projects based on types, technologies, or industries.
- Interactive Elements: Adding animations, parallax effects, or interactive components to enhance user engagement.
- Testimonials: Displaying endorsements or feedback from clients, employers, or colleagues.
- Blog Section: Sharing articles, tutorials, or insights related to the creator's field of expertise.

Feasibility Study

Feasibility is determination of whether a projects worth doing or not. Before actually recommending the new system it is important to investigate if it is feasible to develop the new system.

Before developing and implementing a system we have sure that our system is feasible in the following ways:

- Technical Feasibility.
- Operational Feasibility.

Technical Feasibility

- MongoDB Database: Setup for storing project data, contact messages, and potentially user accounts (for content management).
- Express.js Backend: Creation of API routes for fetching project data, handling contact form submissions, and serving static files.
- React Frontend: Development of responsive and interactive user interfaces with separate components for each page.
- Node.js Server: Hosting the backend logic and API endpoints.
- Skills and Knowledge: Does the project creator possess or have access to the required technical skills to develop and maintain a MERN stack-based website?
- Technology Stack: Is the MERN stack suitable for the project's requirements and objectives?
- Resource Availability: Are the necessary development tools, libraries, and frameworks readily available and compatible?
- Third-Party Integration: Can external services (e.g., hosting, domain registration) be easily integrated with the chosen technology stack?

Operational Feasibility:

- Team and Collaboration: If involving multiple individuals, is there clear communication and collaboration among team members?
- Content Management: If the portfolio website includes a content management system (CMS), is there a mechanism for the creator to easily update and manage content?
- Development Timeline: Can the project be developed within a reasonable timeframe, considering the creator's availability, other commitments, and technical complexity?
- Deployment Schedule: Is there a feasible plan for deploying the website, including server setup, database migration, and frontend deployment?

3. Overall Description:

Product Features

- Fully functional contact me page form.
- Custom hand coded on scroll and static animation using javascrpt and jquery.
- Fully Responsive mobile first web application design.
- Complete React build.

Technology Used

- Front End-HTML, CSS, Bootstrap, Javascript, React Js
- Back End-Node Js, Express Js, Npm
- Database Management-Mongo Db
- Tools- Visual Studio Code, Git, GitHub

(1)React:

- React is a JavaScript library for building user interfaces. It has transformed the way we think about front-end development. React.js has clasped the engagement of the open-source community. And its demand is irreversible in the coming future. It is here to stay.
- Improved performance: React uses Virtual DOM, thereby creating web applications faster. Virtual DOM compares the components' previous states and updates only the items in the Real DOM that were changed, instead of updating all of the components again, as conventional web applications do.

(2)HTML:

- HTML stands for Hyper Text Markup Language
- HTML is the standard markup language for creating Web pages
- HTML describes the structure of a Web page
- HTML consists of a series of elements
- HTML elements tell the browser how to display the content
- HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.

(3)CSS:

- CSS stands for Cascading Style Sheets
- CSS describes how HTML elements are to be displayed on screen, paper, or in other media
- CSS saves a lot of work. It can control the layout of multiple web pages all at once
- External stylesheets are stored in CSS files

(4)Bootstrap:

• Bootstrap is the most popular HTML, CSS, and JavaScript framework for developing responsive, mobile-first websites.

(5) Javascript:

- JavaScript is a lightweight, cross-platform, single-threaded, and interpreted compiled programming language. It is also known as the scripting language for webpages. ...
- Syntax:
- Example:
- Output: The output will display on the console.

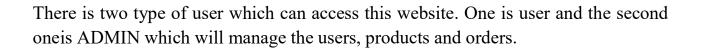
(6)NODE JS:

- Node.js is an open-source and cross-platform JavaScript runtime environment. It is a popular tool for almost any kind of project!
- Node.js runs the V8 JavaScript engine, the core of Google Chrome, outside of the browser. This allows Node.js to be very performant.
- A Node.js app runs in a single process, without creating a new thread for every request. Node.js provides a set of asynchronous I/O primitives in its standard library that prevent JavaScript code from blocking and generally, libraries in Node.js are written using non-blocking paradigms, making blocking behavior the exception rather than the norm

(7) MONGO DB:

• MongoDB is a schema-less database, which means the database can manage data without the need for a blueprint. Document. Data in MongoDB is stored in documents with key-value pairs instead of rows and columns, which makes the data more flexible when compared to SQL databases

User Classes



General Constraints

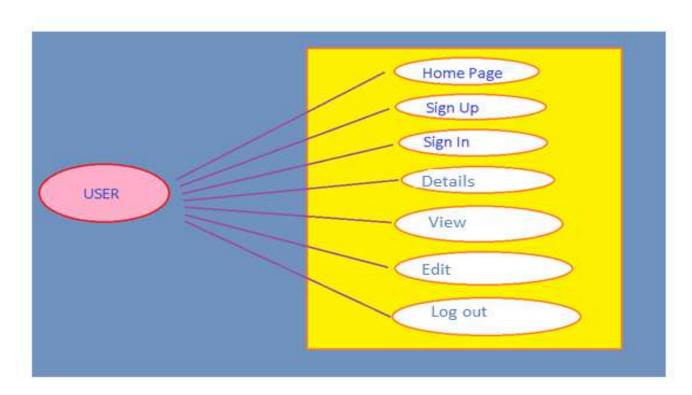
Users should have an email and have a browser

4. REQUIREMENTS

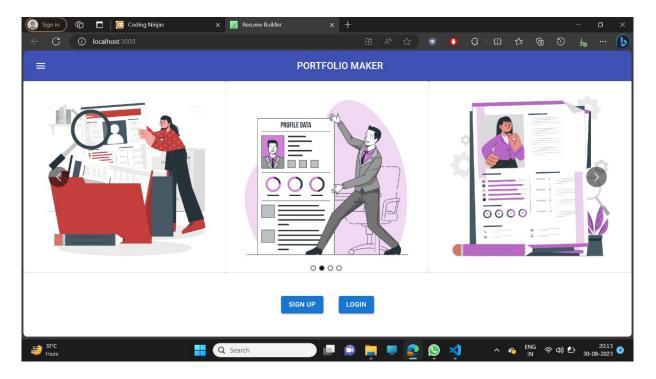
FUNCTIONAL REQUIREMENTS

Complete System:

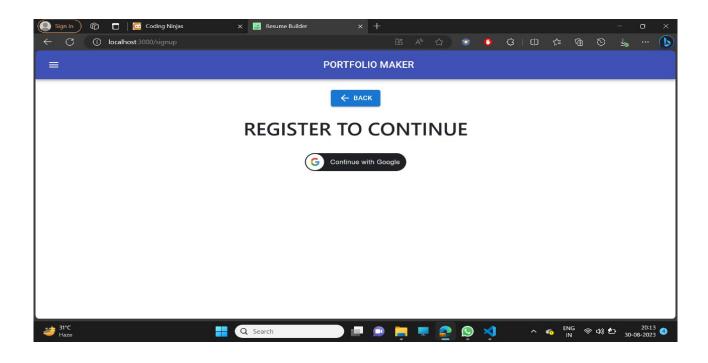
USER



HOME:

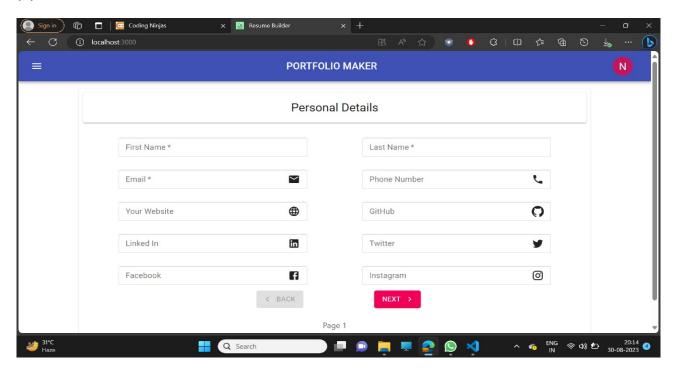


REGISTRATION:

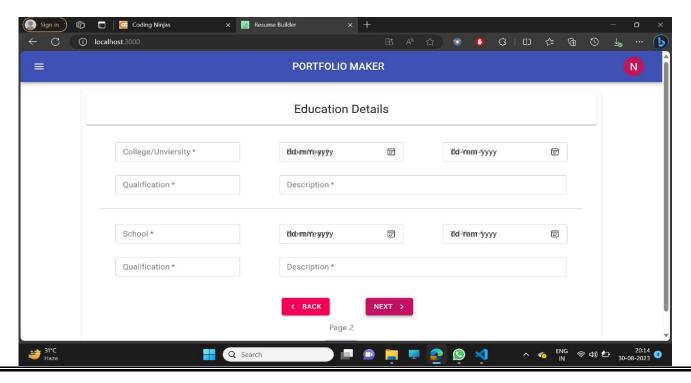


DETAILS:

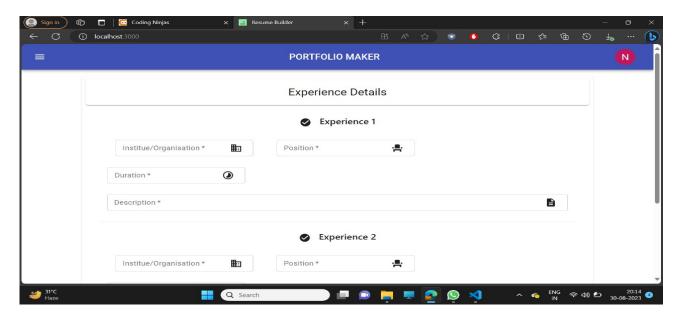
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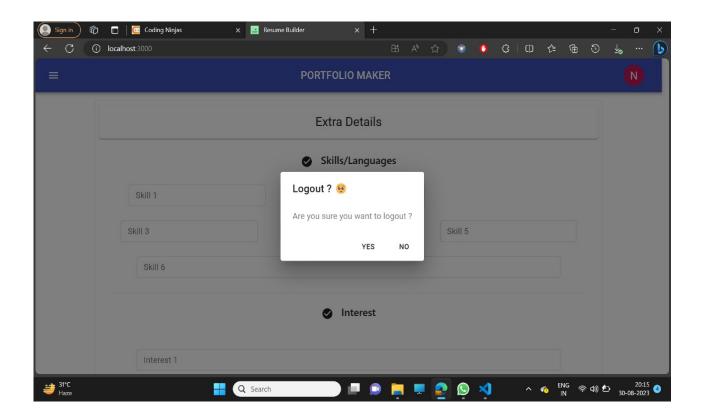
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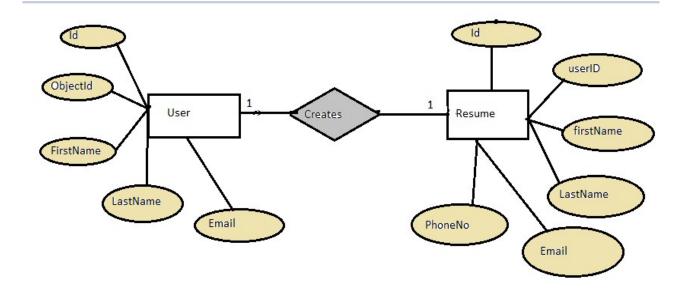
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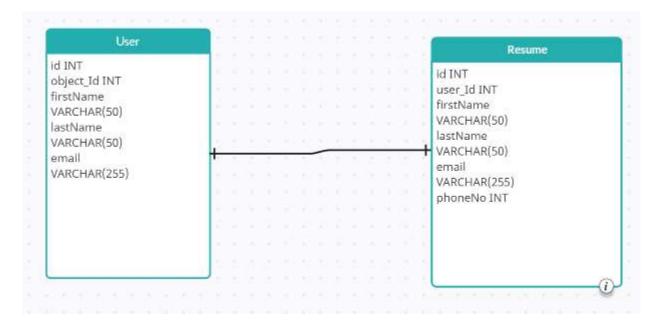
(4)



ER Diagram



DataBase Design Diagram



7. Testing:

S	Test	Description	Expected	Error	Result
r	Case		Outcome	Messag	
	Title		0 000 01110	e	
N					
О					
1	Login	User should see	After	Invalid	Passed
	Page	loginpage when user will	signing in	Login	
		enter email and	user to be		
		password.	directed to		
			home page		
2	Home	Home page display for	Home Page	No	Passed
	page	every	Displayed	Error	
	Display	successful log in.			
	ed				
3	Informati	Users can see fill	detail	No	Passed
	on	information and save it		Error	

7. Future Scope:

- Personal Branding: Expand your personal branding efforts through consistent design, a distinct voice, and a strong online presence.
- Skills Development: Highlight your journey of learning and acquiring new skills. Showcase courses, certifications, and workshops you've completed.
- Localization: Translate your portfolio into multiple languages to reach a wider global audience.
- Accessibility: Ensure your portfolio is accessible to people with disabilities by adhering to web accessibility standards.