**Technical Career Education Private Limited**

5th floor, Sahyadri Campus, Adyar, Mangalore 575007



**Full Stack Development Skill Lab Course**

**PROJECT REPORT**

**2023 - 24**

**Project Title: ‘Name of the project’**

Submitted by:

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Institution:



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***Project Overview***

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| --- | --- | --- |
| Problem Statement | Development of a Responsive Cake Website for E-Commerce | |
| Solution Proposed *(video Link)* |  | |
| Link to the final Challenge presentation | https://1drv.ms/w/c/45f6d7c428b3f369/EY9TwjaF4tJBgnwK6cqFwBYBM0yLaDfwyef3647CJKzxyA?e=i9gvVA | |
| Link to photos/ videos drive | https://drive.google.com/drive/u/0/folders/1XiPpWB9Q-FfTQQuOoYSbQyoeoP5W-gw0 | |
| Class/ Section | 3C | |
| Team Name | MrBoys | |
| Team Members | Name | USN |
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1. **Introduction:**

***The development of a responsive cake website is aimed at creating an online platform that allows users to browse and purchase cakes with ease. Using HTML, CSS, JavaScript, and ReactJS, this project focuses on building a user-friendly e-commerce website for a cake shop. The website includes features such as displaying different cake categories, detailed product information, an interactive shopping cart, and a contact form. The main goal is to enhance the user experience by providing a responsive design that works seamlessly across different devices.***

1. **Problem Statement:**

***Many existing cake shop websites suffer from poor user experience, including unresponsive designs, difficult navigation, and a lack of interactive features for browsing and purchasing products. There is a need for a more user-friendly and visually appealing platform that allows customers to easily view products, read details, and add cakes to their shopping cart. Additionally, a simple, efficient, and responsive design is essential to provide a seamless shopping experience across all device types.***

1. **Solution:**

**3.1 System requirements for the project:**

1. **Hardware Requirements:**

* **A computer with internet access for development and testing.**
* **A device for testing responsiveness (smartphone, tablet, desktop).**

1. **Software Requirements:**

* **Text Editor: Visual Studio Code or Sublime Text for coding.**
* **Web Browser: Google Chrome, Mozilla Firefox for testing.**
* **Node.js and npm (Node Package Manager) for running ReactJS.**
* **ReactJS for building the user interface.**
* **CSS frameworks (like Bootstrap or custom CSS) for styling the website.**

1. **Libraries & Frameworks:**

* **ReactJS: A JavaScript library for building interactive UIs.**
* **React Router: For handling navigation between different pages.**
* **Bootstrap: For responsive grid layouts and styling components.**

**3.2 Flowchart of the project:**

* + **Start: User visits the homepage.**
  + **Homepage: Displays featured cakes, cake categories, and a welcoming message.**
  + **Browse Categories: User selects a category (e.g., Chocolate, Fruit, Custom).**
  + **View Cake Details: User clicks on a cake to see details (ingredients, price, options).**
  + **Add to Cart: User adds the cake to the shopping cart.**
  + **Shopping Cart: User views the cart, updates quantity, or removes items.**
  + **Checkout: User proceeds to checkout (optional).**
  + **Confirmation: Final confirmation of the purchase (optional).**
  + **End: User exits or continues shopping.**

**3.3 Frontend: The frontend of the website is built using ReactJS, which provides a dynamic and responsive user interface. Key features include:**

* + **Homepage: Displays a clean layout with featured cakes and easy navigation to categories.**
  + **Cake Categories: Users can browse through different cake types with filter and sort options.**
  + **Cake Details: Each cake has a dedicated page with detailed information, including price, ingredients, and size options.**
  + **Interactive Shopping Cart: Users can view their cart, modify quantities, and proceed to checkout. ReactJS components manage the dynamic elements allowing real-time updates to the shopping cart and cake details. The frontend is also styled using custom CSS to ensure responsiveness across all devices.**

* 1. **Backend:**

* **The backend is built with Node.js and can be extended with a database for storing cake details and user data.**
* **Server: A Node.js server handles HTTP requests and serves data to the frontend.**
* **Database (optional): A database like MongoDB or MySQL could be integrated to store cake data, user preferences, and order history.**
* **APIs: The backend communicates with the frontend using REST APIs to retrieve and send data, such as cake details and cart information.**

1. **Conclusion/Outcome:**

**The responsive cake website offers an efficient, user-friendly e-commerce platform for browsing and purchasing cakes. The use of ReactJS ensures dynamic interaction and smooth updates to the shopping cart and cake details. The project improves the overall user experience with a visually appealing design and a responsive layout that works across all devices. Future enhancements could include integrating payment gateways, implementing user authentication for order tracking, and expanding product offerings.**

1. **Reference List:**

* **ReactJS Documentation: https://reactjs.org/docs/getting-started.html**
* **Node.js Documentation: https://nodejs.org/en/docs/**
* **Bootstrap Framework: https://getbootstrap.com/docs/5.0/getting-started/introduction/**
* **Mozilla Developer Network (MDN) Web Docs:** [**https://developer.mozilla.org/en-US/**](https://developer.mozilla.org/en-US/)

(Mention the name of all the tools required for the project)

(Explain the flow of the project)

(Write all the steps of frontend part of the project with code)

**3.4 Backend**

(Write all the steps of backend part of the project with code)

**4. Conclusion/Outcome**

(Give a brief summary which explains on how the solution proposed meets the requirement of the problem)(attach the video of the outcome)