Pimpri Chinchwad Education Trust's

PIMPRI CHINCHWAD COLLEGE OF ENGINEERING NIGDI, PUNE-44

DEPARTMENT OF INFORMATION TECHNOLOGY

Name of Course: PFC

Year & Branch: T.Y. B. Tech. (IT), 2022-23, Semester-II

PFC MINI PROJECT

ON

"E-Commerce Website"

BY

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GUIDED BY

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C O N T E N T S : -

I. Introduction and aims/motivation and objectives.

The website in question serves as a platform for electronic commerce, which indicates that it will make it easier for people to buy and sell goods and services online. The overall goal of the project is to provide a straightforward and user-friendly experience across its whole. It will provide users with numerous option to go through.

1.1 Purpose: The purpose of this document is to provide a detailed description of the requirements for the e-commerce website. The system is designed to allow users to navigate through the website content and to create a user-friendly experience

1.2 Scope: The e-commerce website will be a web-based application that enables users to find the required product. The system will allow users to search for products by location, specialization, and availability, view profiles, and schedule purchase. The system will also allow vendors to manage their products, and post new products.

Motivations:

- Reach a wider audience

- Waiting for any product is time-consuming

- People find it hectic to actually visit the store

- To combat this problem and find a product as soon as possible is the need

Objectives:

- To Provide Advance Search facility to users.

- To Reduce efforts of users.

- To Provide full satisfaction to users.

- To enable the functionalities that are necessary for the users

II.   Problem Statement/definition.

Our main aim is to create a web application that will be beneficial for the users and vendors to find suitable products as per the requirements much more conveniently. Users can find the product by describing their requirements and get the product with ease.

III.   System Architecture

A proposed system architecture for an e-commerce website using the MERN stack (MongoDB, Express, React, and Node.js) would consist of several components:

Front-end: The user interface of the system, built with React, will be responsible for rendering the user interface and communicating with the back-end API.

Back-end: The backend will be built with Node.js and Express, which will be responsible for handling requests from the front-end and communicating with the database

Database: MongoDB will be used as the database for storing all the information related to patients, doctors, appointments, and any other relevant information.

API: The back-end API will provide a set of endpoints that will be used by the front end to create, read, update, and delete data from the database.

Authentication: A system for user authentication and authorization will be implemented to ensure that only authorized users can access sensitive information.

Deployment: The system will be deployed on a cloud platform like AWS to ensure scalability and availability.

IV. System Implementation

The Mern Store is a web application built using the MERN stack (MongoDB, Express.js, React.js, and Node.js) that allows users to browse through different products. The application is divided into two main parts: the backend and the frontend.

Backend:

The backend of the application is built using Node.js and Express.js. It is responsible for handling all the business logic and interacting with the database.

The backend consists of the following modules:

- Authentication Module: This module is responsible for authenticating users and ensuring that only authorized users can access the application.
- User Management Module: This module is responsible for managing users' data such as their profiles and purchase records.
- Items Module: This module is responsible for displaying the status of the item i.e whether it is in stock or out of-stock.
- Database Module: This module is responsible for interacting with the database to store and retrieve data.

The backend of the application is designed using the RESTful API architecture, which allows for easy communication between the frontend and the backend.
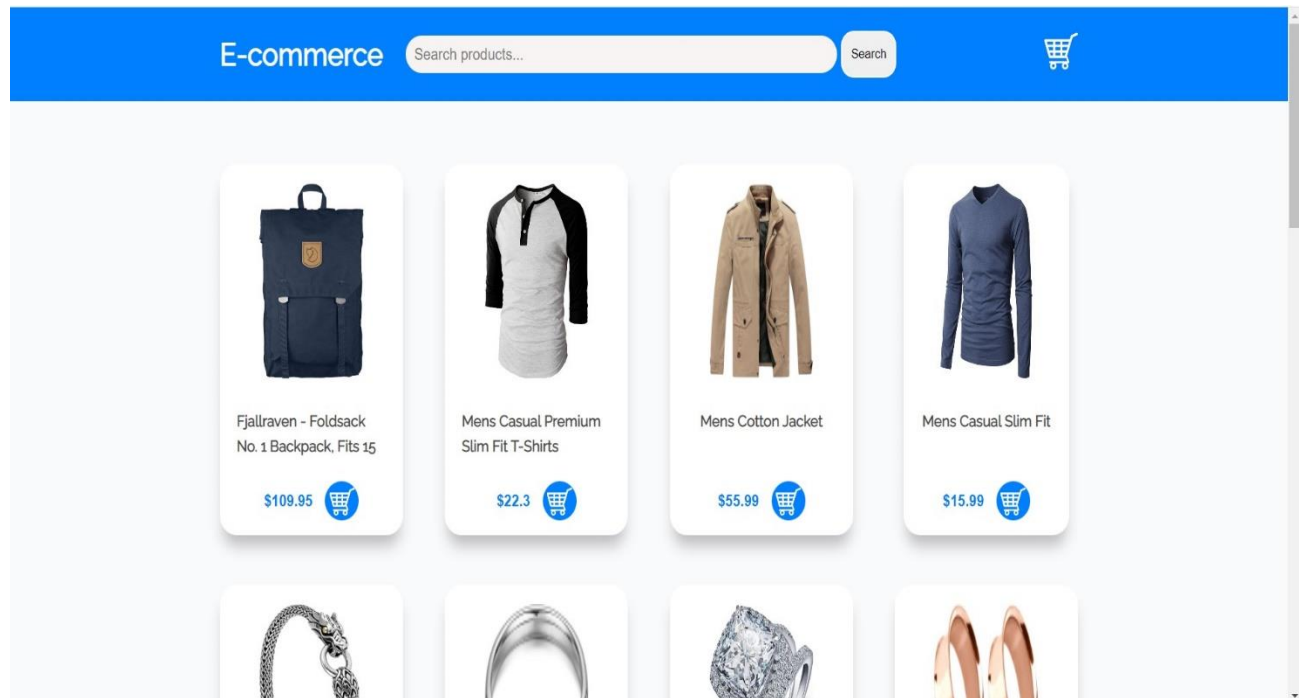
Frontend:

The frontend of the application is built using React.js. It is responsible for presenting the user interface to the users and interacting with the backend through RESTful APIs. The frontend consists of the following modules:

- Authentication Module: This module is responsible for authenticating users and ensuring that only authorized users can access the application.
- User Profile Module: This module is responsible for managing users' profiles and allowing them to view their appointments.
- Items Module: This module is responsible for displaying the status of the item i.e whether it is in stock or out of-stock.
- Add to Cart Module: This module is responsible for allowing users to add to cart their product which can be purchased later.
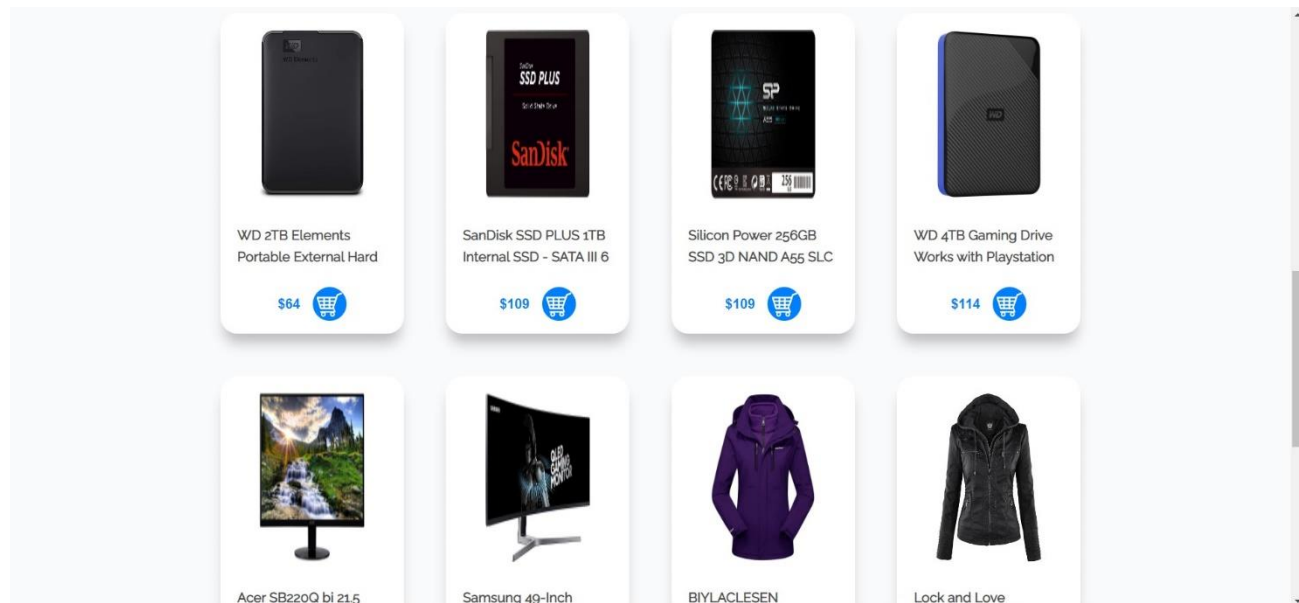
The frontend of the application is designed using the React.js library and is built using modern web development technologies such as Redux, React Router, and Axios. The frontend is also responsive, which means it can be accessed from any device, including mobile phones and tablets.

V.   Results

Home Page:

Products:

Acer SB220Q bi 21.5 inches Full HD (1920 x	Samsung 49-Inch CHG90 144Hz Curved	BIYLACLESEN Women's 3-in-1	Lock and Love Women's Removable
$599	**$999.99**	**$56.99**	**$29.95**
Rain Jacket Women Windbreaker Striped	MBJ Women's Solid Short Sleeve Boat Neck	Opna Women's Short Sleeve Moisture	DANVOUY Womens T Shirt Casual Cotton
$39.99	**$9.85**	**$7.95**	**$12.99**
Fjallraven - Foldsack No. 1 Backpack, Fits 15	Mens Casual Premium Slim Fit T-Shirts	Mens Cotton Jacket	Mens Casual Slim Fit
$109.95	**$22.3**	**$55.99**	**$15.99**
John Hardy Women's Legends Naga Gold &	Solid Gold Petite Micropave	White Gold Plated Princess	Pierced Owl Rose Gold Plated Stainless Steel
$695	**$168**	**$9.99**	**$10.99**

Cart:

E-commerce Search products...

Order Summary

Fjallraven - Foldsack No. 1 Backpack, Fits 15 Laptops
$219.9

+ 2 -

Remove

Mens Casual Premium Slim Fit T-Shirts
$22.3

+ 1 -

Remove

Payment :

Search

Payment Summary

Subtotal: **$242.2**

Shipping Fee: **$25**

Total: **$267.2**

Conclusion

The MERN Store is a valuable tool for simplifying the process of purchasing and selling goods. While there are some limitations to consider, the benefits of the system outweigh the potential drawbacks. With its comprehensive features, the system provides an efficient and cost-effective solution for product purchase facilities and users alike.