Project Report

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Aim: To create E-commerce web application using MERN stack.

About: MERN stack is popular technology used in web development for building modern, dynamic, and scalable web applications.

Creating an e-commerce web application using the MERN stack involves using four main technologies: MongoDB, Express.js, React.js, and Node.js. Here's an overview of the steps you can follow to create an e-commerce web application using the MERN stack:

1. Plan your application: Start by outlining the features and functionalities you want your e-commerce web application to have. Determine the target audience, what products or services you want to sell, and how you want to process payments.
2. Set up your development environment: Install the necessary software, including Node.js, MongoDB, and a code editor like VS Code.
3. Create a MongoDB database: Create a database to store your product data and other information, such as customer data and order history.
4. Create a Node.js server: Use the Express.js framework to create a server that can handle requests from your frontend and interact with your database.
5. Build your React frontend: Use React.js to create a frontend that displays your products, processes customer orders, and interacts with your server.
6. Connect your frontend and backend: Use Axios or another library to connect your frontend and backend, allowing them to communicate with each other.
7. Implement payment processing: Add a payment processing system, such as Stripe or PayPal, to enable customers to pay for their orders.
8. Test and debug: Test your e-commerce web application to ensure that it functions properly and is secure. Debug any issues that arise during testing.
9. Deploy your application: Once your application is complete, deploy it to a web server so that customers can access it online.

React.js is a JavaScript library for building user interfaces. It allows developers to create reusable UI components and efficiently manage the state of an application. React.js follows a component-based architecture, where UI components can be nested together to form a complete user interface. React.js uses a virtual DOM (Document Object Model) to efficiently update the UI, making it fast and performant. React.js is maintained by Facebook and has a large community of developers who contribute to its development.

Screenshots: