

E-Commerce Fullstack Web Development Project

Project Overview

This is a fullstack web development project for an E-Commerce application built using the MERN stack:

- MongoDB for the database
- Express.js and Node.js for the backend
- React.js for the frontend

The project allows users to:

- Browse product listings
- View detailed product pages
- Fetch product data from a backend API

Project Structure

Backend

Entry Point: server/index.js

- Express server setup
- Connected to MongoDB using Mongoose
- Routes configured for:
 - /api/products
 - /api/users

Product Model: server/models/Product.js

```
const productSchema = new mongoose.Schema({
```

```
name: String,  
price: Number,  
description: String,  
image: String,  
countInStock: Number  
});
```

Frontend

App Router: client/src/App.js

- Routing handled via React Router
- Pages:
 - / - HomePage
 - /product/:id - ProductPage

HomePage: client/src/pages/HomePage.js

- Fetches product list using Axios from /api/products
- Displays image, name, and price with links to product detail pages

Technologies Used

- Frontend: React.js, Axios, React Router
- Backend: Node.js, Express.js, Mongoose, MongoDB
- Development Tools: dotenv, CORS

Getting Started

1. Clone the repo:

```
git clone https://github.com/your-username/your-repo.git
```

2. Navigate into backend and install dependencies:

```
cd server
```

```
npm install
```

3. Set up .env file in server with your MongoDB URI:

```
MONGO_URI=your-mongodb-uri
```

4. Start the backend server:

```
npm start
```

5. Navigate to the client and install dependencies:

```
cd ../client
```

```
npm install
```

6. Start the frontend React app:

```
npm start
```

Acknowledgements

This project was built as a MERN stack learning exercise.