🛸 PERN Stack E-Commerce Tutorial 🛸

Demo App
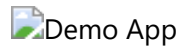
🎬 Project Demo Video:
👉 [Click here to watch the demo on Google Drive](#)

🛸 Highlights

- 💥 **Tech stack:** PERN + TailwindCSS + DaisyUI
- 🛡️ **Rate Limiting & Bot Detection**
- 👋 **Global state management** with Zustand
- 🐮 **AI Customer Support Chatbot** using Groq LLM
- 🐛 **Error handling** on both server and client
- ☆ **Deployment** for FREE!
- ⧖ And much more!

🚀 Getting Started

Setup `.env` file

Create a `.env` file in the `/backend` folder:

```
# Server
PORT=3000

# PostgreSQL
PGUSER=your_pg_user
PGPASSWORD=your_pg_password
PGHOST=localhost
PGDATABASE=your_database_name
PGPORT=5432

# Arcjet (optional)
ARCJET_KEY=your_arcjet_key
ARCJET_ENV=development

# Groq AI LLM API for chatbot
GROQ_API_KEY=your_groq_api_key
```

📄 Installation & Running

Run the Backend API

```
cd backend
npm install
npm run dev
```

Server will run at: http://localhost:3000

Run the Frontend

```
cd frontend
npm install
npm run dev
```

Frontend will run at: http://localhost:5173

📝 Notes

- ☑️ Ensure **PostgreSQL** is running locally or use a remote DB URL.
- 🔍 The **Groq API key** is required for the AI chatbot. Without it, the chatbot will fallback to a default error message.
- 🌱 Use `npm run seed` (if implemented) to populate initial product data.
- 🚀 For **production deployment**, update `.env` with your production DB and API keys.

🛠️ Tech Stack

Technology	Purpose
PostgreSQL	Database
Express.js	Backend Framework
React	Frontend Framework
Node.js	Runtime Environment
TailwindCSS	Styling
DaisyUI	UI Components
Zustand	State Management
Groq LLM	AI Chatbot
Arcjet	Rate Limiting & Bot Detection

📄 License

This project is open source and available under the [MIT License](#).

🤝 Contributing

Contributions, issues, and feature requests are welcome!

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