# PostureGuard Pro - Blue Light Blocking Glasses E-Commerce Store

## Overview

PostureGuard Pro is a modern e-commerce website specializing in premium blue light blocking glasses designed to protect your eyes and improve your digital wellness. Built with React and powered by Supabase, this application provides a seamless shopping experience for customers looking to reduce eye strain and improve sleep quality.

🌐 **Live Demo**: <https://nafex38sshi3.space.minimax.io>

## Features

### 🛍️ E-Commerce Functionality

* **Product Catalog**: Browse our collection of premium blue light blocking glasses
* **Product Details**: Detailed product pages with specifications and benefits
* **Shopping Cart**: Add/remove items with persistent cart state
* **Secure Checkout**: Streamlined checkout process with form validation
* **Order Management**: Order confirmation and tracking

### 👤 User Experience

* **Responsive Design**: Optimized for desktop, tablet, and mobile devices
* **Smooth Navigation**: Hash-based navigation with smooth scrolling between sections
* **Interactive UI**: Modern, clean interface with intuitive user interactions
* **Customer Reviews**: Real customer testimonials and reviews
* **Benefits Section**: Educational content about blue light protection

### 🔧 Technical Features

* **Real-time Database**: Supabase integration for dynamic product data
* **Form Handling**: Contact forms and checkout with validation
* **State Management**: React hooks for efficient state management
* **Modern Routing**: React Router DOM for single-page application navigation
* **Performance Optimized**: Fast loading times and smooth interactions

## Technology Stack

### Frontend

* **React 18**: Modern React with hooks and functional components
* **TypeScript**: Type-safe development
* **Vite**: Fast build tool and development server
* **React Router DOM**: Client-side routing
* **Tailwind CSS**: Utility-first CSS framework for styling

### Backend

* **Supabase**: Backend-as-a-Service providing:
  + PostgreSQL Database
  + Real-time subscriptions
  + Authentication (if needed for future features)
  + RESTful APIs

### Deployment

* **Frontend**: Deployed on MiniMax hosting platform
* **Database**: Supabase cloud hosting
* **Version Control**: Git with GitHub repository

## Project Structure

postureguardpro/  
├── public/ # Static assets  
├── src/  
│ ├── components/ # Reusable React components  
│ │ ├── Header/ # Navigation header  
│ │ ├── Footer/ # Footer component  
│ │ ├── ProductCard/ # Product display cards  
│ │ └── Cart/ # Shopping cart components  
│ ├── pages/ # Page components  
│ │ ├── HomePage/ # Main landing page  
│ │ └── ProductPage/ # Individual product pages  
│ ├── contexts/ # React context providers  
│ ├── hooks/ # Custom React hooks  
│ ├── utils/ # Utility functions  
│ ├── types/ # TypeScript type definitions  
│ └── App.tsx # Main application component  
├── package.json # Project dependencies  
├── tailwind.config.js # Tailwind CSS configuration  
├── tsconfig.json # TypeScript configuration  
└── vite.config.ts # Vite configuration

## Getting Started

### Prerequisites

* Node.js (v16 or higher)
* npm or yarn
* Supabase account (for database connection)

### Installation

1. **Clone the repository**

* git clone https://github.com/JFKOLLIE/postureguardpro.git  
  cd postureguardpro

1. **Install dependencies**

* npm install

1. **Set up environment variables** Create a .env.local file in the root directory:

* VITE\_SUPABASE\_URL=your\_supabase\_project\_url  
  VITE\_SUPABASE\_ANON\_KEY=your\_supabase\_anon\_key

1. **Start the development server**

* npm run dev

1. **Open your browser** Navigate to http://localhost:5173 to view the application

### Building for Production

# Build the application  
npm run build  
  
# Preview the production build  
npm run preview

## Database Schema

The application uses the following Supabase database tables:

### Products Table

CREATE TABLE products (  
 id UUID PRIMARY KEY DEFAULT gen\_random\_uuid(),  
 name VARCHAR NOT NULL,  
 price DECIMAL(10,2) NOT NULL,  
 description TEXT,  
 image\_url VARCHAR,  
 benefits TEXT[],  
 created\_at TIMESTAMP DEFAULT NOW()  
);

### Orders Table

CREATE TABLE orders (  
 id UUID PRIMARY KEY DEFAULT gen\_random\_uuid(),  
 customer\_name VARCHAR NOT NULL,  
 customer\_email VARCHAR NOT NULL,  
 total\_amount DECIMAL(10,2) NOT NULL,  
 status VARCHAR DEFAULT 'pending',  
 created\_at TIMESTAMP DEFAULT NOW()  
);

## Key Components

### HomePage Component

* Hero section with call-to-action
* Benefits explanation section
* Product showcase
* Customer testimonials
* Contact information

### ProductPage Component

* Individual product details
* Add to cart functionality
* Product specifications
* Customer reviews

### Header Component

* Site navigation with smooth scrolling
* Shopping cart icon with item count
* Mobile-responsive menu

## Recent Updates

### Bug Fixes (Latest)

* ✅ **Pricing Fix**: Updated homepage banner to show correct starting price ($39.99)
* ✅ **Navigation Fix**: Fixed header navigation links to work properly from all pages
* ✅ **Cross-page Navigation**: Implemented hash-based routing for seamless section navigation

## Contributing

1. Fork the repository
2. Create a feature branch (git checkout -b feature/amazing-feature)
3. Commit your changes (git commit -m 'Add some amazing feature')
4. Push to the branch (git push origin feature/amazing-feature)
5. Open a Pull Request

## Performance Considerations

* **Code Splitting**: Components are lazily loaded where appropriate
* **Image Optimization**: Images are optimized for web delivery
* **Bundle Size**: Dependencies are carefully chosen to minimize bundle size
* **Caching**: Proper browser caching headers for static assets

## Browser Support

* Chrome (latest)
* Firefox (latest)
* Safari (latest)
* Edge (latest)
* Mobile browsers (iOS Safari, Chrome Mobile)

## License

This project is proprietary software. All rights reserved.

## Contact

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## About PostureGuard Pro

PostureGuard Pro glasses are designed to: - Block 99% of harmful blue light - Reduce eye strain and fatigue - Improve sleep quality - Enhance focus and productivity - Protect long-term eye health

**Protect your eyes. Enhance your life. Choose PostureGuard Pro.**