



# Smart Shop

Online Shopping Website

GitHub : [Smart Shop Web Application](#)

Code Link: <https://github.com/Vi1234sh12/SmartShop>

## Overview

E-commerce is fast gaining ground as an accepted and used business paradigm. More and more business houses are implementing websites providing functionality for performing commercial transaction order the web. It is reasonable to stay that the process of shopping on the web is becoming common place.

The Objective of this project is to develop a general purpose ecommerce store where any kind of product can be bought from the comfort of home through the internet.

An online store is a virtual store on the internet where customers can browser the catalog and select a product of interest. The selected items may be collected in a shopping cart. At checkout time, the item in the shopping cart will present as an order. A that time, more information will be needed to complete the transaction.

Usually, the customer will be asked to fill or select a billing address, a shipping address, a shipping option and payment information such as Cash On Delivery. An e-mail notification is sent to the customer as soon as the order is placed.

## SmartShop Workflow :

1. It has been build from scratch using the MERN stack, with the client side using a Redux store as well. Bootstrap 5 is used along with some custom styling
2. The client side uses React hooks along with redux.js and redux-thunk middleware.
3. The server side is built using the express framework of node.js

4. The database used to store the user, order, products, and refresh tokens is a free tier of the cloud based MongoDB service from MongoDB Atlas.

5. The user authentication and authorization has been implement ways

1] an Email & Password based Login :

- Here, the JWT tokens are used to verify each new registered user by sending an email for account verification.
- There is also a feature of allowing the user to reset the password in case he/she forgets the credentials. This also uses refresh tokens and access tokens of varying life spans
- This feature has been implemented using the node mailer package, along with the JSON web Tokens (JWT)

2] The workflow for ordering the items is very simple and quick. The status tracker helps keep track of the number of steps left before placing the order.

The admin panel also provides information regrading all orders and Users.

## Payment Method

**Stripe API** is used to accept payment via a credit or debit card. Since the application is till the sandbox version , you can test this using 4242 4242 4242 and any combination of date / CVV

## Admin Panel :

- The admin panel view is meant to handle all the orders of products and registered users
- An order can be marked as delivered, after the user has completed the payment
- The admin can create a product for the shop, which makes it easier to add/ remove more products to replicate a real world e-commerce site
- The user's details can alter, only by setting them as admin or not, Other than this the admin cannot change any other detail about the registered user
- Helps give an estimate of the total number of orders and Users on the web Application

## Easy Workflow for Ordering Items

1] The Smart Shop has been designed and built in a manner that makes it very easy to order items once they are added to the cart.

2] There is a status bar implemented that can help keep user informed about the number of steps left in placing an order

## Technologies Used

Some of the technologies used in the development of this web application are as follows:

- **MongoDB Atlas:** it Provides a free cloud service to store MongoDB collections
- **React.js :**A library for building user interfaces.
- **Node.js :**A runtime environment to help build a fast server application using JS.
- **Express.js:** A popular Node.js framework to build scalable server-side for web applications.
- **Redux.js:** A predictable & Global state container for react apps
- **Mongoose :** An ODM (object data modelling) library for MongoDB and Node.js
- **Heroku:** A platform (PaaS) to deploy full stack web applications for free.
- **JSON Web Tokens or JWTs:** A standard to securely authenticate HTTP requests
- **Bootstrap 5:** A popular framework for building responsive, mobile-first sites.
- **React Bootstrap:** The most popular front-end framework, rebuilt for React.