

E-Commerce Web Application

1. Introduction-

Ecommerce or electronic commerce refers **to a business model that involves sales transactions being done on the web**. Virtually every online shopping website - big or small - follows this structure. Any site where you can obtain items for sale over the internet is considered an ecommerce website.

2. Modules or Functionality-

- a) HomePage or Product Page
- b) Login Page
- c) Signup Page
- d) Shopping Cart Page
- e) Checkout Page
- f) Userinfo or Profile Page Page
- g) Order History

a) Homepage or Product Page-

All the products will be shown on the product page and the product can also be shown according to the filter and category, the product page will be public route. For which we will not need login.

b) Login Page-

From login page we will login through email and password and get redirected to product page. On login success we will get JWT token through which order and checkout page of our website cannot be accessed without login and without register user order won't be able to.

c) Signup Page-

From the signup page, new users will be able to register on the website and the password entered by the user will be stored in the database in the encrypted form through bcrypt. The signup page will be in the public route.

d) Shopping Cart Page-

In the shopping cart page we will show the added products and from here we can order our added products and this page cannot be opened without login.

e) Checkout Page-

On the checkout page, the user will give the customer details for the order like customer name, delivery address, mobile no. This page also cannot be opened without login.

f) Userinfo page-

Userinfo page will show the information of the logged in user. This page cannot be opened without login.

g) Order History-

All the orders of the logged in user will be shown on the order page. The order page will not be able to open without login.

3. Security And Authentication-

- a) Token Authentication
- b) Private Route And Public Route

a) Token Authentication-

On login we will get JWT token we will check it on every route if token is not valid then we will not be able to access that routes.

b) Private Route And Public Route-

Through private route and public route on React app, we will control access of route on React end. Like if we are login, then only we will be able to access checkout page, order history page and shopping cart page

4. Technology-

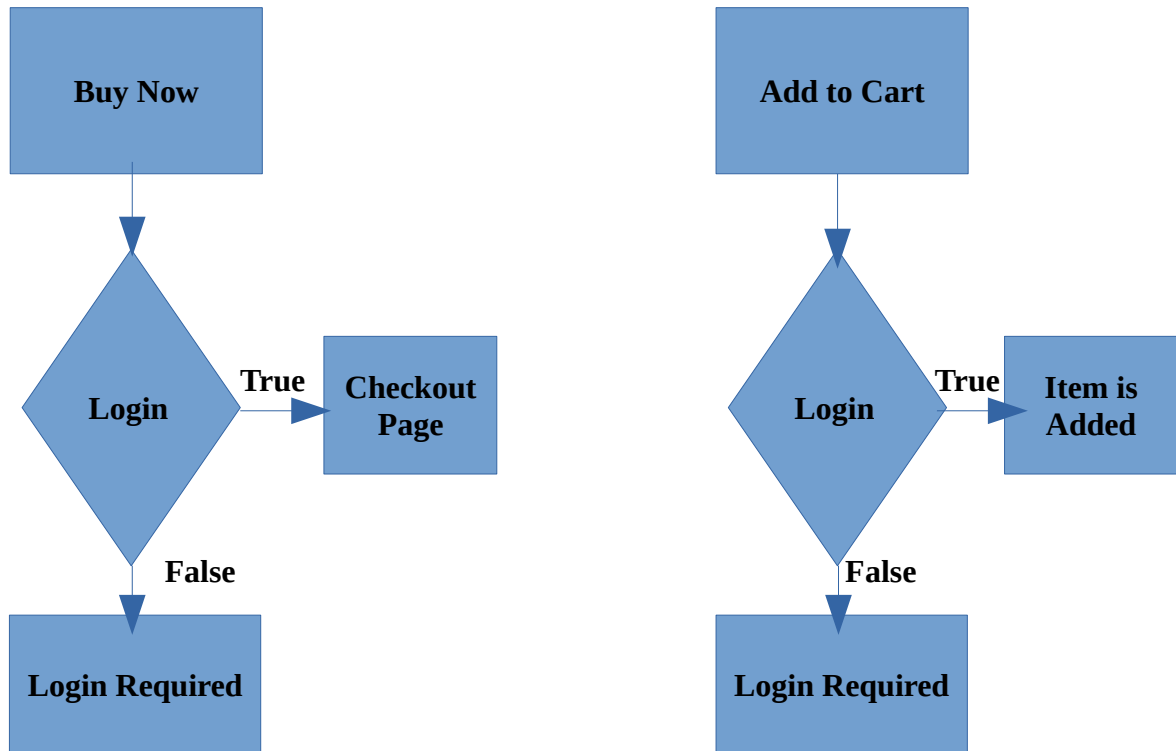
Frontend- Reactjs, Reduxjs, Redux-Thunk

Backend- Nodejs, Expressjs, Mongoose

Database- MongoDB

Data Flow Daigram of Product Page

1) Product Page-



2) Homepage or Product Page Filter-

- > All Products
- > Filtered Limit Product Result
- > Filtered Sort Product Result
- > Filtered Category Wise Product Result