Web/Mobile Programming- Project Increment :1

Ecommerce Website

Team Members:

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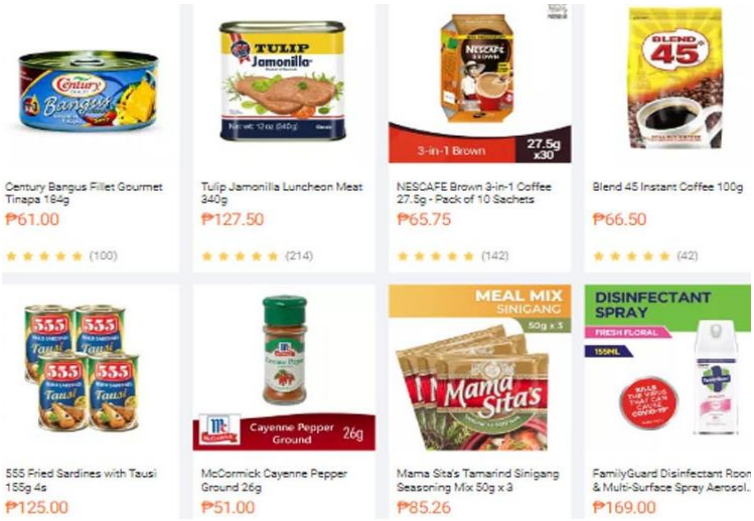
Motivation:

Now-a-days everyone uses E-commerce website on daily basis to buy anything easily from home. So, we are trying to build an E-commerce website through which end user can purchase groceries using web programming languages.



Objective:

In our website, Users will be able to view the products on the main screen and then they can also search for their desired product and will be able to add those products to the cart and pay for those products to be delivered to their desired address.

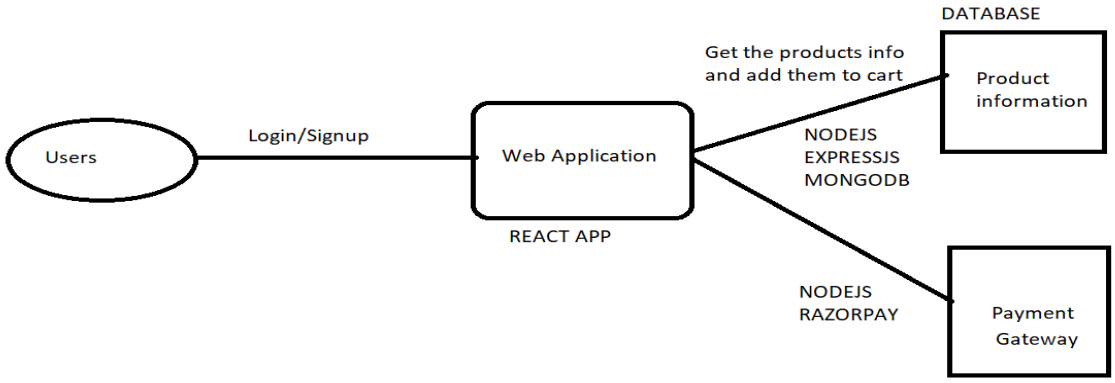
Features/Functionalities:

- The list of items that are available on the website will be stored in backend database.

- We will be using MongoDB as our database and use NodeJS Rest APIs to fetch the stored items onto the website user interface.
- End user can sign up to our website and we store those details in MongoDB. Once the sign up is successful, user can login multiple times.
- When the user hovers or clicks on the product, more information about the product will be visible.
- Once the user selects the items, the website redirects them to address page where they will be able to enter the shipping address. After entering the address, User will be redirected to the payment page.
- We will be using Razor pay as our payment gateway to process payments from our website.
- Razor pay is one of the leading Indian payment gateway companies that provide simple APIs which would help developers to use their payment gateway services.

The above-mentioned points are the initial list of features that we are trying to implement. We are planning on adding few more features into the website.

Architecture:



Functional requirements:

Some of the libraries and technologies that are crucial in the development of our website, as well as what they are used for, are listed below:

1. MongoDB(no sql db).
2. ReactJs (pwa ,js library).
3. React router(Navigation in router)
4. ExpressJs(node framework to create server).
5. NodeJs(javascript runtime).
6. RazorPay(Payment gateway).
7. Bodyparser js (To parse request body).
8. Cors module(To enable cross origin resource sharing).
9. Axios js (To make restful api calls).
10. Nodemon js
11. Heroku (Deploy backend rest apis)
12. Heroku cli.
13. Mongodb atlas

API's to be developed:

1.Login API:

Authenticates users when they login to the website

2.Signup:

End users must provide name, email id and password to sign up.

3.Get Products API:

Once the user logs in successfully, this API fetches the products that can be ordered

4.Final cart API:

Once the user moves to check out, this API fetches all the items added by the user into the cart earlier.

5. Payment API:

Using razorpay API, user will be able to pay the amount charged for the purchase.

Data points that will be used for the website:

User signup and login details: names, passwords, email ids.
Details of the products: Names, pictures, price, weight.
Addresses of the customers.

GitHub Link: https://github.com/VipparlaSaiSaranya/WebProgramming-Project/
Module Sharing:
Login/Signup API and Products list API will be done by Mani Sai and Nagnedra
Cart API and Payment API by Manoj and Saranya

References

EDMAM documentation -https://developer.edamam.com/
Razorpay documentation-https://razorpay.com/docs/payment-gateway/web-integration/standard/