Application and Development Practices Laboratory
Mini Project Report

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ABSTRACT

Nowadays, we have become growingly accustomed to using digital platforms to carry out tasks like ordering food, booking appointments, planning events, etc. The time has come to fully embrace this digital revolution and bring it to the doorsteps of CEG's very own Gurunath.

How many times have you spent 10+ minutes waiting to buy a quick snack or two at Gurunath? The high frequency of customers, coupled with the limitations of having only 1-2 human staff to pick out and sell the goods leads to lags and delays in getting what you want. This not only wastes time, but also directly eats into the profits of the store (since higher wait times = lesser customers).

Our team realized that this problem could easily be solved by replacing the inefficient and slow process of placing an order on-spot with a digital one. Our "**AnnaMart**" project strives to digitalize the ordering process by allowing users to pre-order their items before coming to the store. This list of items can then be bagged and kept ready for when the customer comes. All the customer needs to do is pay the amount and receive their bags. This system of "to-go" orders would streamline traffic and ensure there is no clogging of people at the store.

INTRODUCTION

Our project makes use of HTML, CSS, JavaScript, PHP and mySQL to create a seamless experience for the user when they are placing an order on the online AnnaMart store. The scope of the project involves any and all individuals who purchase daily essentials/snacks/stationery from the Gurunath store on campus. This project aims to simplify that process, and ensure a smooth transaction experience for all.

The main page consists of various components like home page, about us, contact us, FAQs, etc to help solve any queries the user might have. The contact us page allows users to submit grievances, or raise any suggestions they have, with the store directly. A sign-in page ensures that only those users whose details are registered in the database are allowed to purchase items. This helps the store link each customer to their order (enabling quicker delivery of goods when the customer arrives at the store). The sign-in page also helps reduces the number of frivolous/inauthentic purchases.

The visually appealing website, which is readable and accessible from any device, lets the user easily add various items (and the number of each item they wish to purchase) to their cart. The total amount payable at the store is updated in real-time, ensuring that the user knows exactly how much money to carry (thereby further reducing wait times at the store). Once the user is done shopping, they simply click on the cart icon and are taken to the checkout page, where they are allowed to confirm the items they wish to purchase, and then place the final order.

ENVIRONMENTAL SUPPORT

1. **HTML**:

   Display relevant content on the webpage, create tables, etc to clearly demarcate different parts of the webpage.

2. **CSS:**

   Ensures proper layout and aligning of various items on the webpage. Also contributes to making the website more visually appealing.

3. **JavaScript:**

   Helps in display of a live counter of the number of items in the cart, carries out front-end validation of details entered by user in the contact us page, calculates the total amount payable by the user.

4. **PHP and MySQL:**

   Links decisions made in the front-end to the backend and stores the data in a database. Thus enables JavaScript to admit or deny entry to users on the signin/signup page.

IMPLEMENTATION

Front End

1. Home-page components:

a. Navigation bar

The nav-bar is the key-point that connects various components of the homepage, so the user can access them with ease.

Figure 1: Represents the navigation bar

b. Home

This consists of the home-page, which serves as a link to the rest of the webpages (cart, about us, etc). It is the portal through which the user begins their shopping experience.

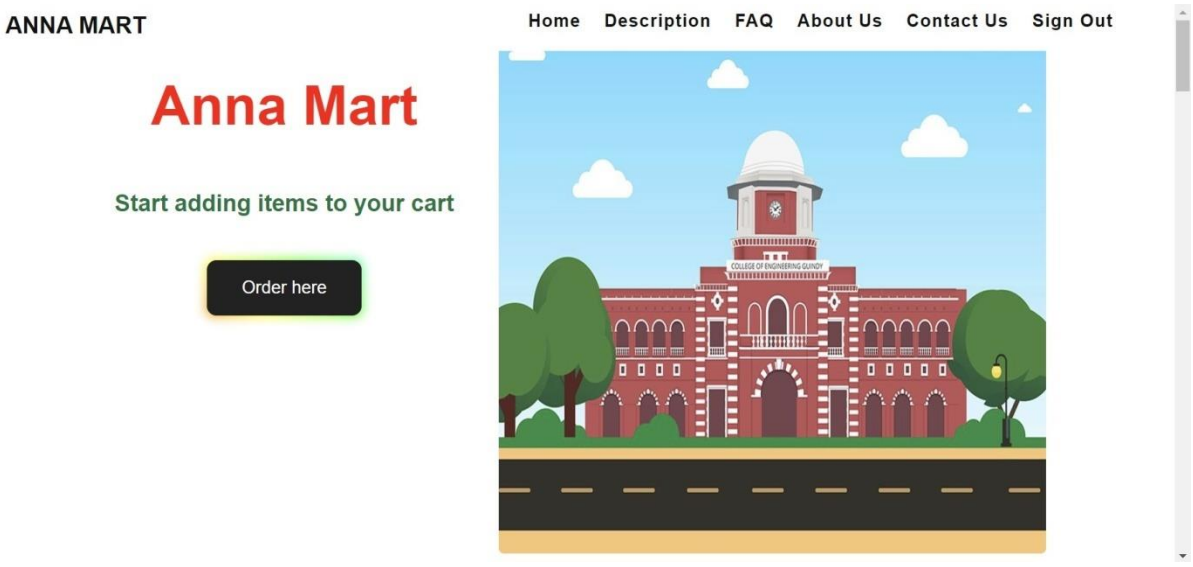

Figure 2: The websites homepage with the nav-bar (has a shortcut linking it to other components)

c. Description

Displays the fundamental reason behind the creation of this website and how it could also be used to combat a real-time calamity like the global strike of Covid-19 by maintaining a sense of social distance.

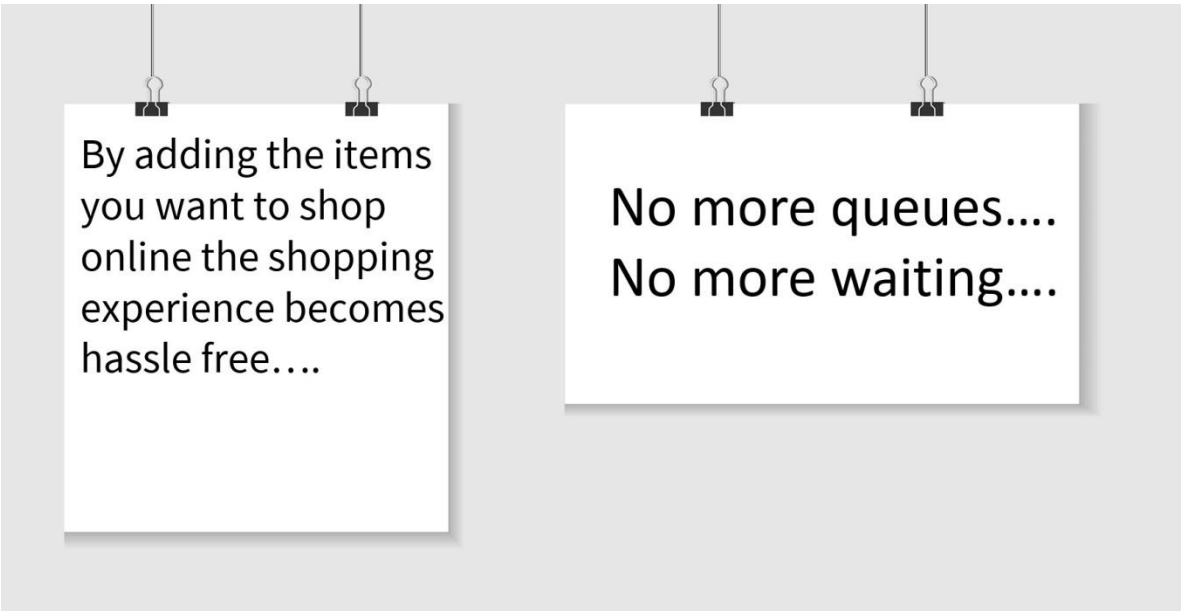

Figure 3: Description of the website

d. FAQ

It is a platform that displays the frequently asked questions to the user to make the buying process more efficient. It also incorporates gradient style to give the website a professional touch.

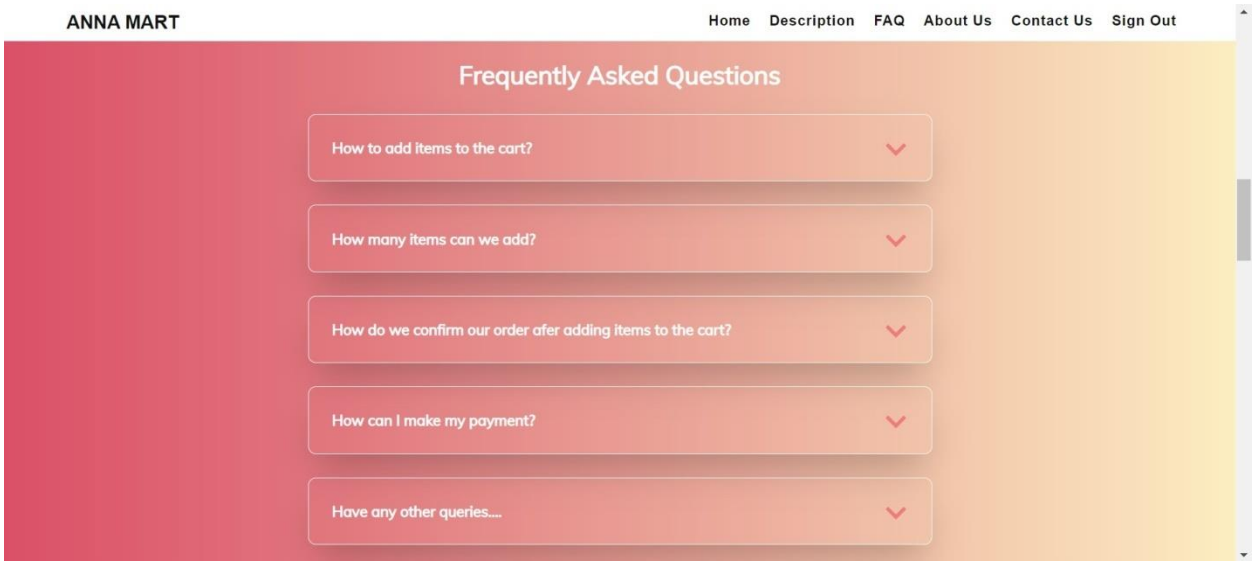

Figure 4: FAQ Section about working of cart

e. About-Us

It displays the information about the minds behind this project.

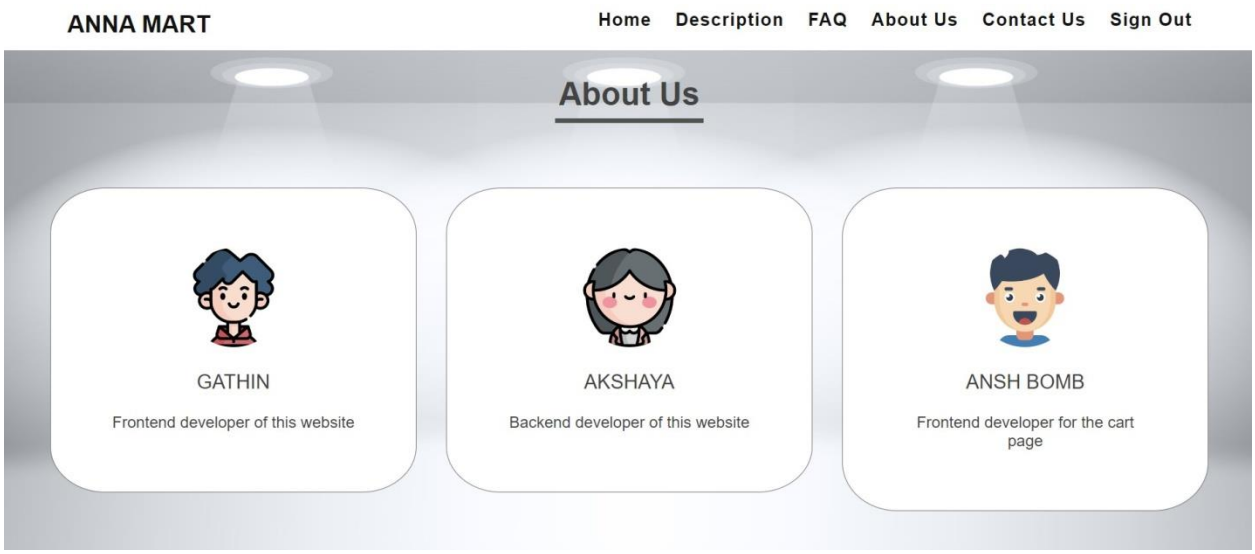

Figure 5: Description on the website creators

f. Contact-Us

It is an advanced feedback form that can be used by the user to contact the concerned person/ store relating to a query or to raise a complaint. It incorporates a responsive form format and JavaScript along with CSS.

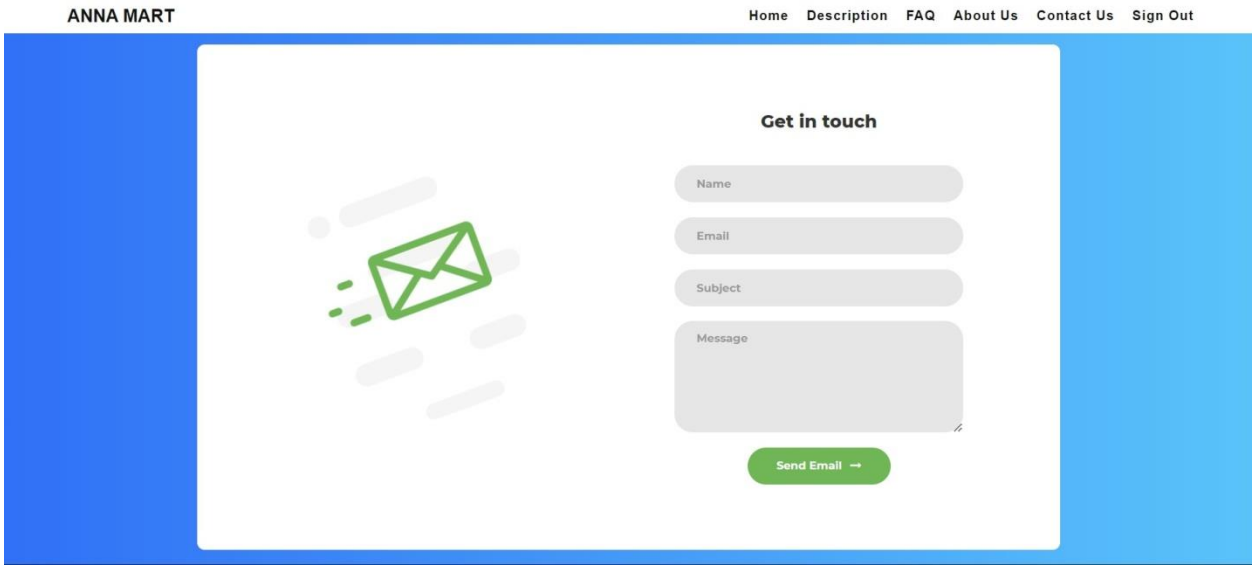

Figure 6: Contact us form for the user to raise complaints and clear queries

g. Sign-Out

When the user has finished placing their order, just a simple click of the sign-out button will help them exit the homepage and return back to the sign-in portal.

2. Cart:

Once the user clicks the “ORDER HERE” tab, the user is taken to the HTML and CSS incorporated sub-page that consists of various product options. The figure below displays the cart-system created.

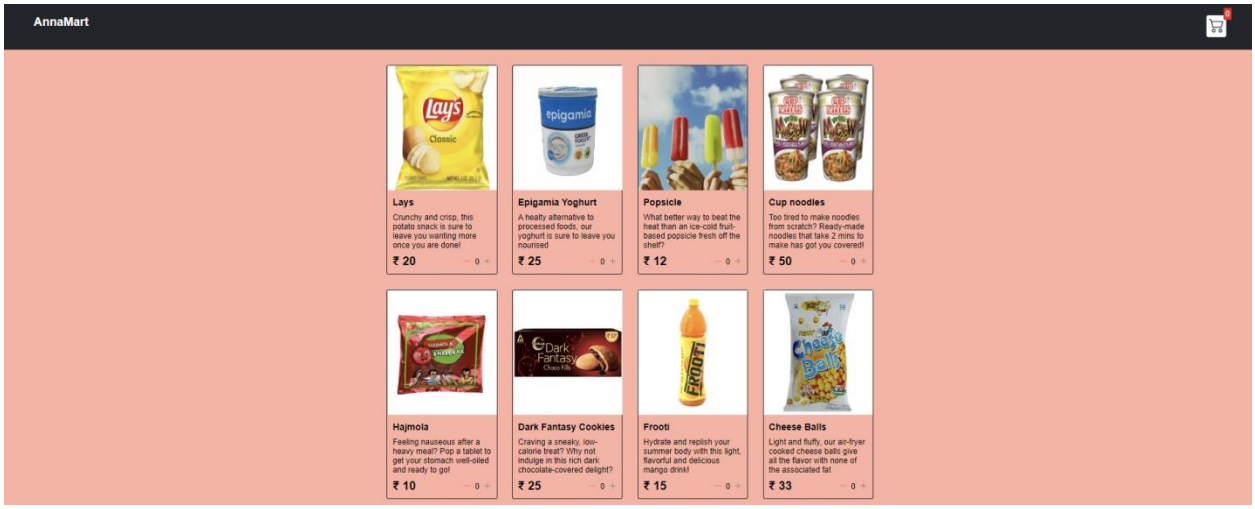

Figure 7: Display of products available

How to add items from the display to the cart-

Figure 8: Adding and removing the required amount of products to the cart

If the customer wants to add an item to the cart, they are supposed to click the add symbol represented by +.

If they wish to remove the item they have to click the – button.

Once the user has selected the desired number of items from the provided list, they should click the cart icon at the top-right corner to checkout.

This action will take the customer to a webpage that will display the list of items purchased along with its quantity. After ensuring the accuracy of the bill contents, the customer is to click on the green checkout button.

A special property of this action is that once the checkout button is clicked, the cart becomes empty and the user is taken to the thank-you page.

Figure 9: The number of products added to cart are displayed here.

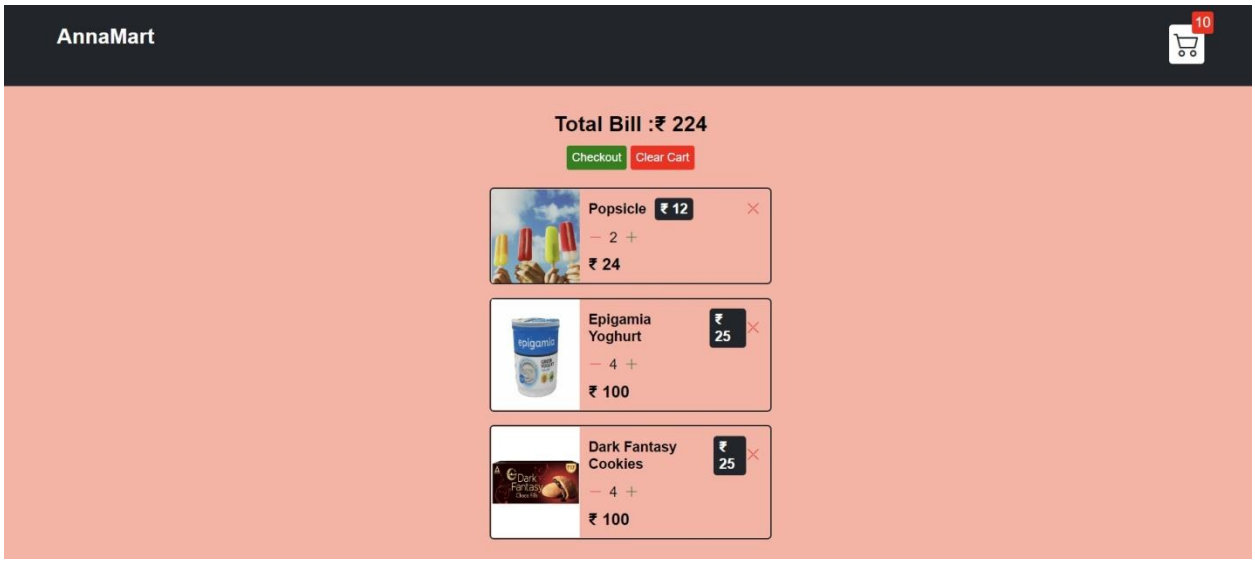

Figure 10: Checkout Bill Page is displayed.

After clicking checkout, a link is provided to take the user back to the main homepage.

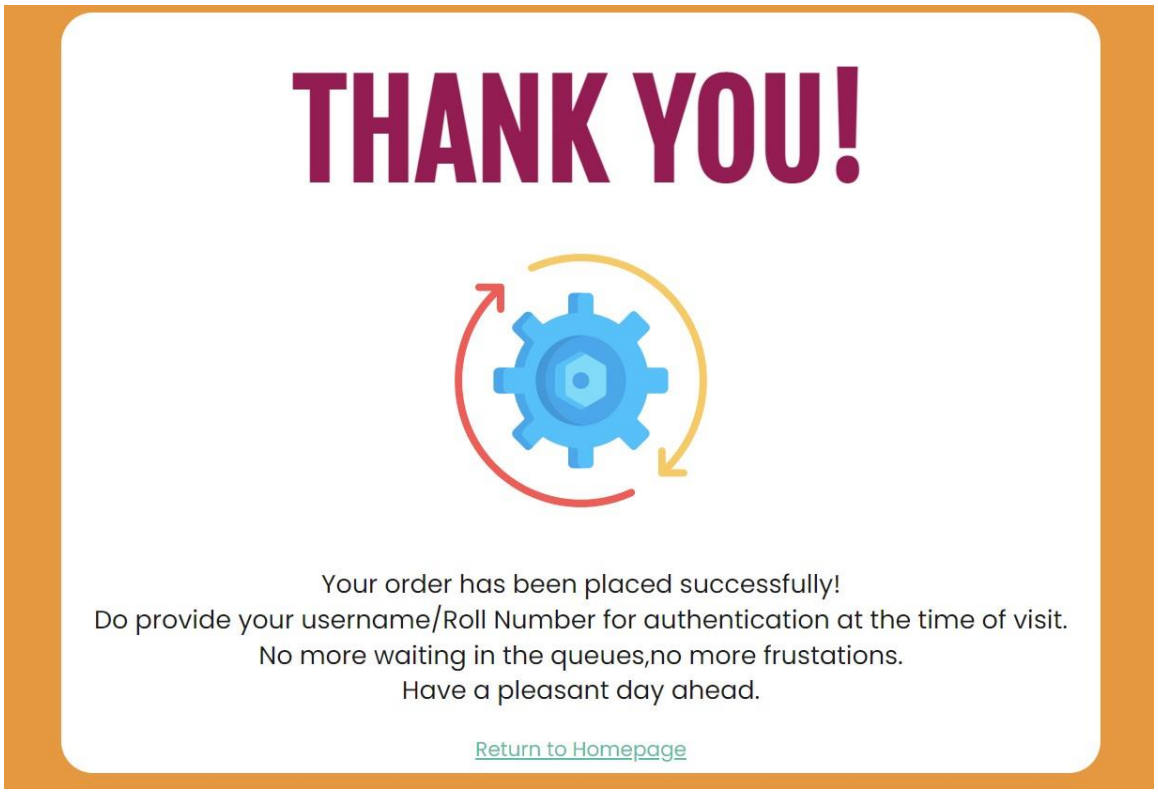

Figure 10: Thank you page with return to homepage button.

Back End

The mySQL and PHP are incorporated to store the user entered data for future reference and validation during sign-in .The sign-up page creates a table with user-info (Roll-No, Email-Id and required password). When the user wishes to sign-in, the row of the provided roll-no is selected using mySQL query in PHP. Once authentication is successfully completed the user is taken to the homepage.

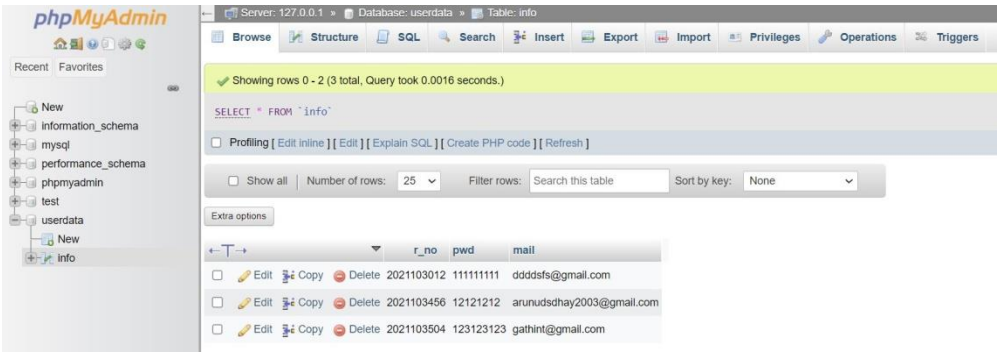

Figure 11: The user database is displayed.

CONCLUSION

Our project AnnaMart helped us improve our website development knowledge and skills. We learnt the various tools to build a complete functional and dynamic website.

In web development, good page design is essential. In general, a good page layout has to satisfy the basic elements of page design. This includes colour contrast, text organization, font selection, style of a page and consistency. The better the page design, the more hits a page will get.

The overall aspects of the web development that we have used in our project are:

- Frontend:
    - Layout
    - Linking various webpages
    - Buttons
    - Alignment
    - Forms
    - Frontend Validation
    - Page responsiveness

- Backend:
    - PHP validation of input
    - POST and REQUEST with form values
    - Using mySQL for database management
    - Adding and retrieving data using forms