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KRUCIAL: A Blessing in Disguise

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Abstract: This is a website for searching availability of any stationary product in the nearby stationary stores of the user, now including the online pharmacy feature and then the user can place the order in any of those stores. The user will enter the product name required.

After searching for the availability of that product in the nearby store, the result will be shown (including a description of the product, price of the product, etc). Then the user can compare the price and quality of the product. After that, the user can choose a store from where they want to order the required product. The users can directly explore the website and can continue shopping.

And once the order gets confirmed from the store the user will receive confirmation details. Once the order gets delivered the user will receive a feedback form about the experience of shopping with our website and also the delivery time, behavior of that delivery person. The user can also rate and write reviews on our website about the store they have placed their order.

I. INTRODUCTION

As we know it's a difficult situation for all of us all over the world. Keeping in mind the situation and the most common problem for the hostel boarders to move out of the hostel after stipulated time, this 'KRUCIAL' web application will help the users to choose the required shop and select the category which they want to order now with an addition to the online pharmacy facility. The shops mentioned in the application are the local ones which are present nearby to the user's location. The web app contains various categories of items like files & folders, Crafts, pens & writings, etc.

Customers can select one according to their preference. The products are mentioned with the price and description of the product. The users can directly explore the web app and can continue shopping. And once the order gets confirmed from the store the user will receive confirmation details. The interface is easy to use and understand so that the users can get the product delivered to their location easily. We have developed the 'KRUCIAL' to solve the problem of the people, to save their time from the busy schedule and get their product delivered in the least time. The report will further contain the background, project implementation, results & discussions, conclusion & future work, references.

II. BASIC CONCEPTS/ LITERATURE REVIEW

A. Basic Concepts

1) Background

List of Tools and Technologies used :

- HTML5:** HTML5 is a mark-up language that is used for structuring and presenting the content created by the developer on the World Wide Web. HTML-5 is the latest version of HTML that contains many new features that help in building many powerful websites.
- CSS:** CSS is a style sheet language. Its full form is "Cascading Style Sheet". It is used for describing the presentation of the HTML project created by the developer on the World Wide Web. CSS 2.1 is the latest version of CSS available at present and used in most of the website development process.
- Bootstrap:** It is a free open-source CSS framework developed to use in mobile-first and front-end Web development. It contains predefined mixed CSS and JavaScript-based designs that can be directly used for forms, buttons, navigation, and other interface components. The latest version of Bootstrap is Bootstrap-5, which has finally officially released.
- MySQL:** It is an open-source relational database management system. Its name is given on the name of co-founder Michael Widenius's daughter "My" and the abbreviation of Structured Query language. So its name became MySQL. The latest version of MySQL is 8.0.12 that is used today.
- PHP:** PHP is a general-purpose scripting language especially for projects of web development. It was originally developed by Danish-Canadian programmer Rasmus Lerdorf in 1994. The latest version of PHP used is 8.0.5.

- *Need of the above Technologies:* The main use and importance of HTML is that it is a browser-side language. Using this language only the developer can put all his ideas in the form of a website and then using CSS it can be designed properly and given a beautiful look. The main designing of websites uses a lot of HTML and CSS codes, so for cutting off the complexity we use Bootstrap. In bootstrap all the main components like navbar, buttons, headers and footers are pre-designed and are available fully functional and it can be directly embedded into the code for use. The main use of PHP and SQL is to make the back-end responsive and functional.

2) Relevance

The online delivery system is widely used in various countries and regions of the world. However, its daily operation and proper maintenance of the database continue to use the traditional manual administration and hand-written codes. It's very hard to be effectively managed because of the human error percentage. On the basis of the present scenario of pandemic and the parallel low trading economic situations, how to make a proper chain sales network and provide a more convenient way of marketing and management were the key factors affecting the development of this project. In this project, we have designed in such a way that the user data will directly be uploaded to the server and then it will directly move to the database administrator and will be further carried out. At the same time, on the other hand, the shopkeepers connected to this service can easily update with the latest information about their products available in the shop like quantity and types of products left, the present price of the product and discount on them, etc. This creates a simple and open network between the customers and sellers. They can directly contact the seller if it is needed. It also decreases human error because the data is directly fed into the database by online cloud and servers, reducing the human error percentage.

3) Project undertaken

A delayed order and broken order or unclear billing system make you and your team more frustrating and annoyed. So developing a proper chain management system and delivery system is very important. So, we are working on making such a system with different objectives. The objectives of the system are:

- a) To monitor Payment protection and detection.
- b) To monitor the current status of the shops and live update system.
- c) To monitor availability of products in shops.
- d) To monitor order completion by user feedback detection.

B. Related work / Literature review

1) Architecture of next-generation e-commerce platform

Yadong Huang, Yueting Chai, Yi Liu, Jianping Shen E-commerce, driven by computer and internet technology, has experienced a significant growth in almost all fields during the past two decades. E-commerce has significantly changed the rules of business. Numerous research institutions and enterprises have made e-commerce more intelligent and convenient. Here, we propose a novel prototype of a next-generation e-commerce platform with an architecture framework and theoretical models. Each subject, including the individual, enterprise, and administrative department, has his/her personalized portal to complete the subject information synchronization, supply release, demand satisfaction, and social contact. By using the personalized portal, instead of the traditional trading platform, the consumers and suppliers can complete intelligent matching transactions without intermediate traders. Moreover, the overall transaction process can be reviewed, making the transaction safer, more transparent, and more interesting. Moreover, the interconnected personalized portals solve the isolated islands of information, and the counterparts support parallel processing. Thus, this may improve the operating efficiency of the entire society.

2) Real Estate Business E-commerce System Research Based on Supply Chain

Shen Aihua

The complex production and market globalization etc make the supply chain become increasingly large. In this case, supply chain management becomes more complex, if real estate enterprises have no technical basis this management form would be difficult to achieve. As the competition in the real estate market gets more and more severe, it is difficult for real estate enterprises to gain advantages from technologies and products. E-commerce is a new type of enterprise management system in this environment. We can nail down implemented methods and steps from the value of enterprises gained at different stages of e-commerce system and e-commerce implementation approach. It is helpful to the successful implementation of real estate business e-commerce.

3) A survey on Impact of Data Analytics Techniques in E-commerce

K.Moorthia, Gaurav Dhimanb, P.Arulprakash, C.Suresh, K.Sriharie

Data Analytics plays a vital role in e-commerce. All the e-commerce companies implemented data analytics in their firm. It also helps better stock maintenance, to build a robust supply chain, analyze information to detect fraud, predict what's in store for you, personalize recommendations for your customers, forecast inventory for the next season, measure your marketing and Personalize the customer's shopping experience. Data analytics used to compete between various e-commerce companies. The analysis is done based on the historic and statistical data. From the study, it has been concluded that the characteristics of the data have grown and are changing day by day. Hence, we need new models and algorithms to collect, store, process, analyze, and evaluate the data in the e-commerce field.

4) Selling goods on e-commerce platforms: The impact of scarcity messages

Stefan Cremer, Claudia Loebbecke

E-commerce platforms prominently advertise low levels of inventory ("only three units left") for 'long tail' goods in physical or digital formats. Thus, they wish to trigger consumer perceptions of scarcity and ultimately promote sales. In this paper, we develop a model on how in scarcity messages, the inventory level affects the online sales goods. We test the model against evidence from e-commerce sales data of about 35,000 printed books. We find that for e-commerce sales, lower inventory promotes sales late but inhibits purchases in the early stages of the purchase process. We reflect this counter-intuitive finding against propositions grounded in different theoretical bodies. Thereupon, we summarize our research contributions and provide some implications for research and practice. We conclude with identified study limitations and suggestions for future research.

5) Online Pharmacy: An E-Strategy For Medication

Ashwani Chaturvedi, Umesh Kumar Singh, Amrish Kumar

The Internet has revolutionized the way in which ordinary people conduct their everyday business. People can bank, pay bills, manage investments, order various products, and obtain information on an infinite number of topics online. It is not surprising that such an innovation would provide a vehicle for the layperson to educate them and guide the direction of their health. Nor is it surprising that the healthcare industry would seize this opportunity to modernize a commonplace function —prescription dispensation. Many internet pharmacies offer overnight shipping, allowing customers to avoid the delay of regular mail. Internet pharmacies can offer privacy that is often lacking in a traditional pharmacy. However, there is a need to critically consider the ethical principles in the use of cyber medicine. The development of online pharmacies has prompted regulatory and monitoring actions at the federal, state, and professional organization levels. The sale of online medications in the international system is potentially dangerous and requires international regulation. Here is an overview of online pharmacies, their potential benefits, the organizations involved in regulating these sites, and the major controversies surrounding online pharmacies.

III. PROBLEM STATEMENT / REQUIREMENT SPECIFICATIONS

This project aims in solving the day-to-day problems experienced by hostel boarders in buying essential study supplies like notebooks, chart paper, graphs etc and essential medicines from nearby stores with the instant delivery system. We have gathered sufficient information and data on whose basis we have come up with this idea.

A. Project Planning

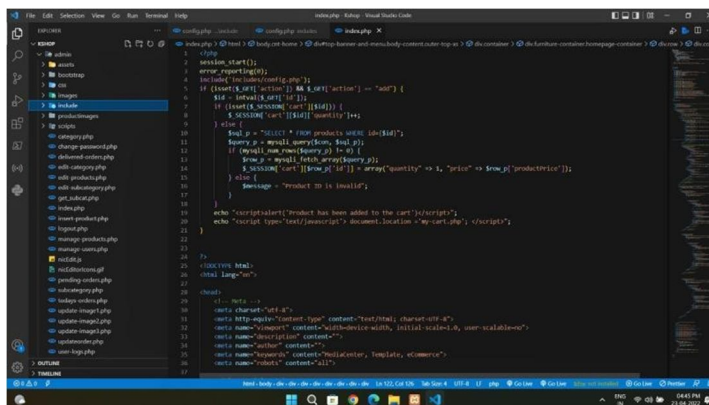
Table: Showing details about project planning and management

Activity	Starting Week	Number of weeks
Requirements Gathering	1 st week of January	2
UI Design	3 rd week of January	3
Coding & Integration	2 nd week of February	3
Debugging	1 st week of March	2
Preparation of project report	3 rd of March	1
Preparation of Project Presentation	1 st week of April	1

B. System Design

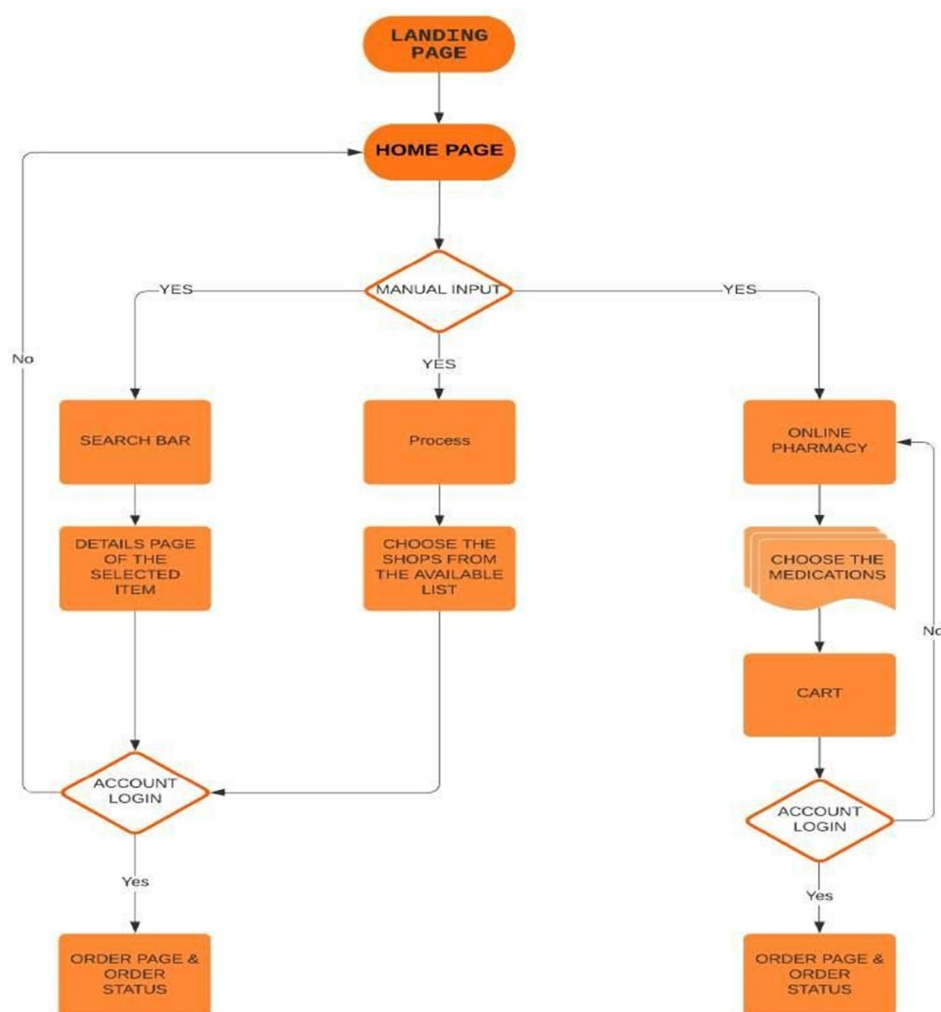
1) Design Constraints

The softwares used in this project consists of VS Code, XAMPP local server and MySQL database.



2) Block Diagram

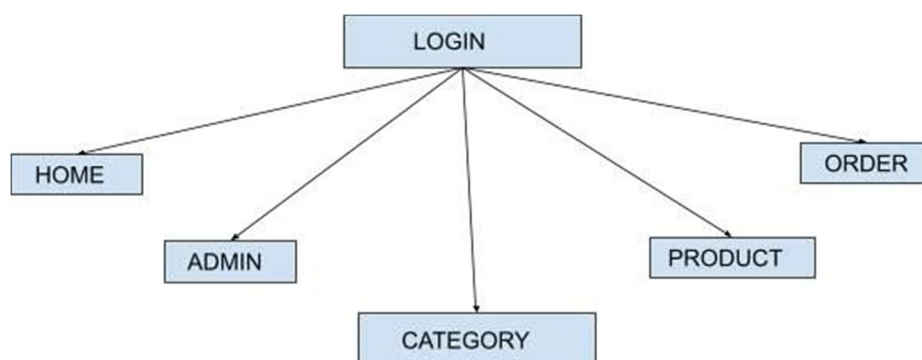
a) Customer Perspective



Explanation

- On visiting the website, the user sees a landing page, from where the user can start shopping.
- After the landing page, the user is going to be landing on the homepage where the user can search the items he/she wants to buy or can select from the given list of items. On searching, the user will be forwarded over to the list of shops from where the user can buy the selected item. The listed shops will have their respected rating, which will be based on the customer's feedback.
- Once the shop and the items are selected, the user will be forwarded to the order page, where the user has to log in (if not did before) to place the order. While logging in the user will go through the email verification process. Once the verification is done the order will get placed and the order status will be shown to the user.

b) Admin Perspective (Both main and pharmacy)



Explanation

- First, the admin has to log in, once the login is done. The admin will be having 6 options which are Home, Admin, Category, Product, Order, and LogOut respectively.
- On the Home Page, the total income will be shown to the admin. Total income will be calculated based on the total successful deliveries only.
- On the admin page, a list of all the admins with their respective details will be provided where the admin can update his/her details or can add a new admin.
- On the category page, the admin can see the list of all the collaborated shops which will be shown to the customer. Here the admin can add a new shop or can remove the existing one.
- In the product section, we will be having all the items that the individual's shops are ready to deliver. This list will get updated every week by the admin, and the update will be based on the information gained from the respective shops.
- The Order section will contain all the orders, pending and delivered, once the order is delivered successfully the admin can change the status to delivered and the total income on the Homepage will be automatically updated, and lastly, we have the logout section.

IV. IMPLEMENTATION

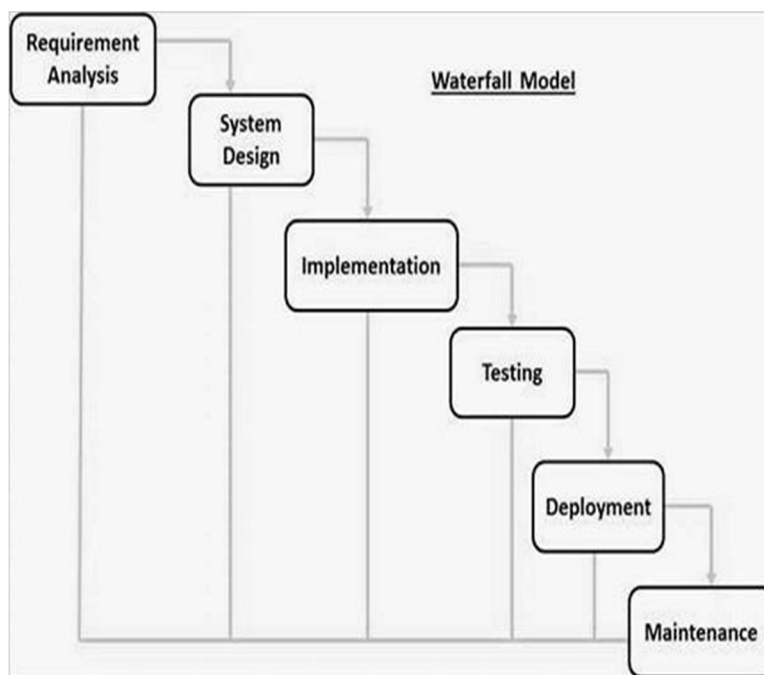
A. Methodology

We have used the Waterfall approach out of all the SDLC models to ensure the success of this project. It is very simple to understand and use. In a waterfall model, each phase must be completed before the next phase can begin and there is no overlapping in the phases.

The sequential phases in Waterfall model are –

- 1) *Requirement Gathering and Analysis:* All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.
- 2) *System Design:* The requirement specifications from first phase are studied in this phase and the system design is prepared which helps in defining the overall system architecture.
- 3) *Implementation:* With inputs from the system design, the system is developed in small programs called units.
- 4) *Integration and Testing:* All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.

- 5) *Deployment of System:* Once the functional and non-functional testing is done; the product is deployed in the customer environment or released into the market.
- 6) *Maintenance:* There are some issues which come up in the client environment. To fix those issues, patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment.s



B. Testing OR Verification Plan

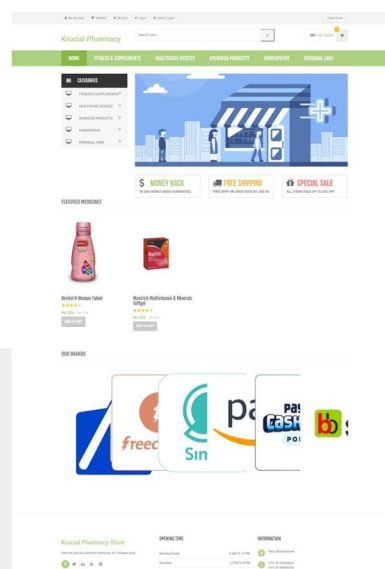
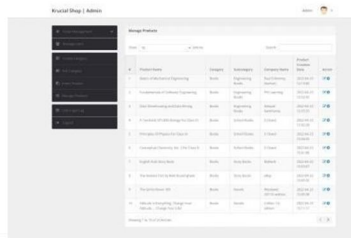
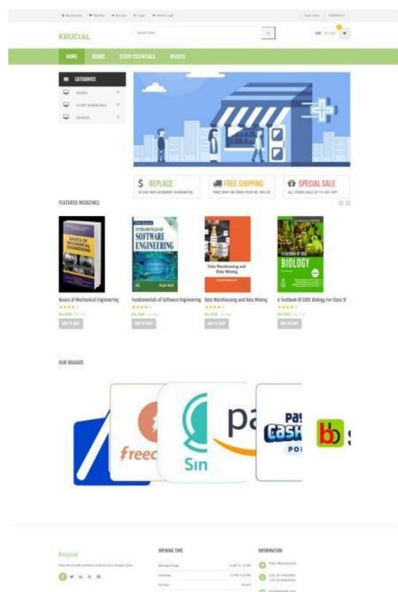
Table: Listing the tests performed along with the behavior of the UI

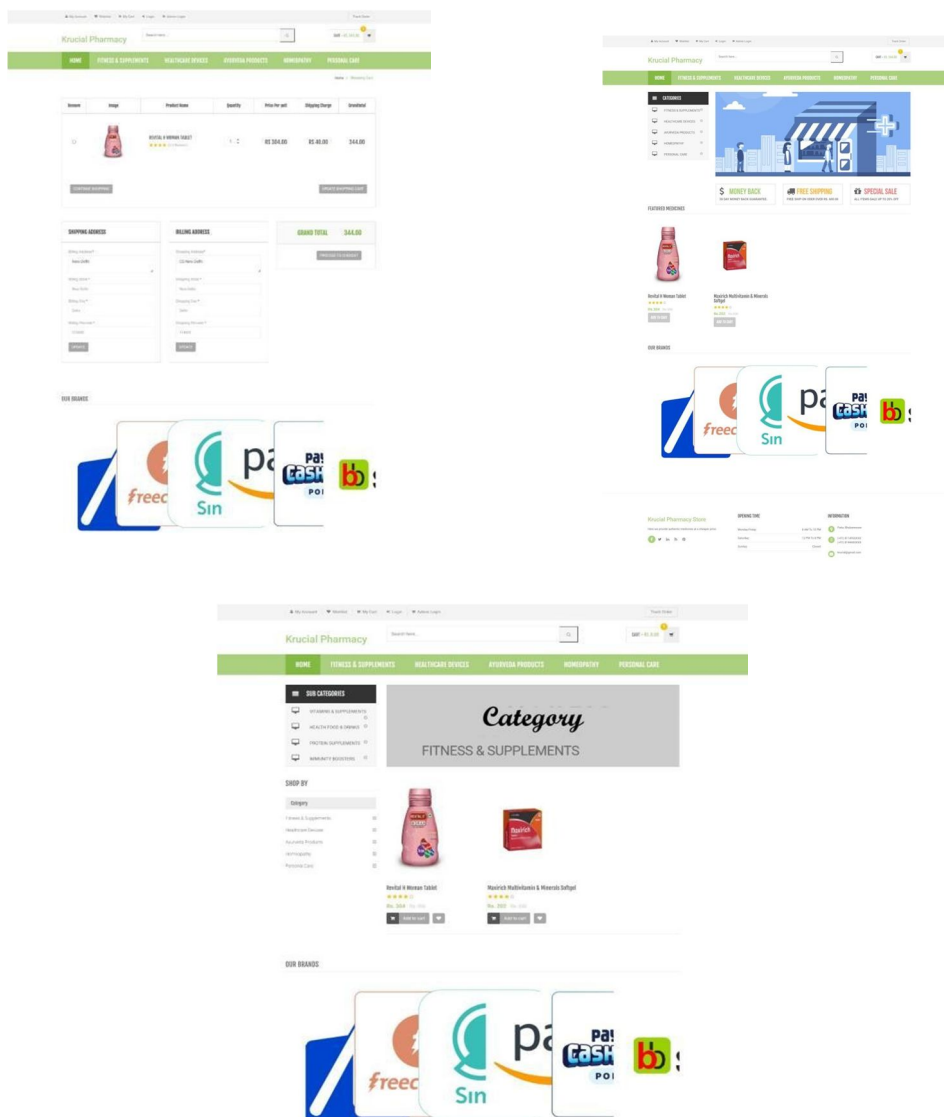
TestID	Test Case Title	Test Condition	System Behaviour	ExpectedResult
1	Launch	Correct WebURL	As expected	Pass
2	LogIn	Correct Credential can be entered	As expected	Pass
3	Searching RandomProduct	User should search valid product	As expected	Pass
4	Selecting Searchedproduct	Clicked on the product	As expected	Pass
5	Adding to cart	User should click on add to cartbutton	As expected	Pass
6	click logout	logout button should be clicked	As expected	Pass

C. Result Analysis and Screenshots

After a series of hours of discussions, one of the members of the group came up with the idea of an online shopping app where one can buy various different stationery items from their favorite store, as well as having an online pharmacy store as an add-on. After a guarded vision on the idea and the tools we will need, we came up with what is called “KRUCIAL - A Blessing in disguise”.

The first and foremost motivation behind giving the idea a real look was the problem faced by students residing in the hostel and at necessary times cannot go out to buy essential items after the hostel out time is over and at present this ongoing pandemic, as by using this web app one can buy its needs without taking the risk of going outside.





V. CONCLUSION AND FUTURE SCOPE

A. Conclusion

This project is all about providing the customer a better online shopping experience for their stationery needs in this ongoing pandemic. Currently, it's in the development stage, having UI for customers to shop with and a little bit of backend database for the admin users. We've used basic HTML, CSS, and Bootstrap for the frontend and PHP, MySQL for the backend work.

B. Future Scope

This project has tremendous future possibilities as it can be implemented as a start-up plan.

- 1) It will increase the economy of the nearby shops, giving them a great bump-up in their business, contributing to the country's economic growth.
- 2) It will create a free flow between the customers and the sellers.
- 3) In such pandemic and emergency situations this service can be used for the benefit and safety of the human world.
- 4) In upcoming years the project may start expanding its products and services throughout the state and then throughout the country.
- 5) In the upcoming development period the UI will be more improved with more technologies and features giving it a perfect user-interface.

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