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Web Application Pre-Owned Merchandise for college

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Abstract: ***The Pre-Owned Merchandise system is an online platform designed to facilitate the buying and selling of second-hand products. It provides a streamlined interface for sellers to list their items and buyers to search for products based on categories, price ranges, and locations. The system features essential functionalities, including user registration, secure login, product uploads by sellers, and advanced search options for buyers. Additionally, it incorporates feedback and rating mechanisms to enhance transparency and trust between users. Admins have complete control over user management, product listings, and the moderation of feedback. This system offers a user-friendly solution that speeds up transactions, promotes buyer confidence through ratings, and provides direct communication between buyers and sellers for seamless deal-making.***

I. INTRODUCTION

The concept of buying and selling pre-owned goods has gained substantial momentum in recent years due to economic, environmental, and social factors. As consumers become more conscious of sustainability and cost-efficiency, the demand for platforms that facilitate the exchange of second-hand products has grown significantly. The Pre-Owned Merchandise System is an online marketplace that addresses this need, providing a convenient and efficient way for sellers to list their pre-owned goods and for buyers to find products that meet their needs. The system is designed to streamline the process of buying and selling used items, offering various features to ensure smooth transactions, ease of use, and enhanced user experience.

In traditional markets, the exchange of pre-owned goods was usually conducted through physical stores, classified advertisements, or personal networks. However, with the rise of e-commerce and the growing trend of online marketplaces, consumers are now accustomed to digital platforms for buying and selling items, including second-hand goods. Despite the success of existing platforms, there are several pain points for both buyers and sellers that the Pre-Owned Merchandise System aims to address.

For sellers, the challenge often lies in finding a platform that allows them to effectively reach potential buyers, while maintaining control over their listings. Many existing systems have a steep learning curve, making it difficult for non-technical users to list items or manage their profiles. For buyers, the difficulty lies in navigating complex search systems that do not allow them to filter items based on their specific needs, such as price, location, and product categories. Moreover, trust is a major issue in online transactions, particularly when buying used items, where the condition and quality of the product are uncertain.

The Pre-Owned Merchandise System is motivated by these challenges. It aims to create an efficient, user-friendly platform that bridges the gap between buyers and sellers while ensuring a smooth transaction experience.

II. LITEARTURE SURVEY

Bakos, Y. (1998) discusses the shift toward online marketplaces and their impact on traditional commerce. The study highlights how online platforms reduce transaction costs, increase transparency, and provide buyers and sellers with a more efficient way to trade goods. These platforms also offer broader access to information, enabling competitive pricing and improved decision-making. Bakos's work laid the foundation for understanding how the digital marketplace model can be extended to second-hand merchandise systems.

Resnick, P., Zeckhauser, R., Swanson, J., & Lockwood, K. (2006) examines the significance of reputation systems in online platforms such as eBay. Reputation and user feedback are vital for building trust between buyers and sellers, especially in second-hand markets where the quality and condition of goods are uncertain. The

authors conducted experiments showing that sellers with higher ratings tend to have higher sales, illustrating the need for robust feedback mechanisms in pre-owned merchandise systems.

Le, H. T., & Cohen, A. J. (2021) explore the surge in second-hand e-commerce platforms, driven by consumer interest in sustainable practices and cost savings. Their research emphasizes that platforms dedicated to pre-owned goods contribute to the circular economy by reducing waste and promoting reuse. Additionally, they outline the economic benefits for both buyers and sellers, as second-hand platforms offer more affordable options compared to traditional retail.

Izadi, F., Jeribi, M., & Nosrat-Makouei, E. (2021) discuss the use of machine learning to improve fraud detection in online marketplaces. As fraud remains a significant issue in e-commerce, especially in peer-to-peer transactions, machine learning models help identify suspicious patterns and fraudulent behavior. For pre-owned merchandise systems, such models enhance user trust by ensuring a safer transaction environment, reducing the risks associated with buying and selling second-hand goods online.

Einav, L., Farronato, C., Levin, J., & Sundaresan, N. (2016) compare auctions and fixed-price models in online markets. Their findings show that while auctions were more popular in the early days of e-commerce, fixed-price listings have grown in prominence as they provide faster transactions and a more straightforward user experience. For second-hand merchandise platforms, adopting the right pricing model is crucial for attracting both buyers and sellers, as it directly impacts the efficiency and volume of transactions.

García, J. A., & Martínez, D. L. (2017) analyze the design and development of second-hand e-commerce platforms. They emphasize the importance of user-friendly interfaces, detailed product listings, and reliable search functions. Their research highlights how pre-owned merchandise systems can benefit from features such as advanced filtering options, product ratings, and category-based search to improve user satisfaction and engagement.

Fuster, M., & Espelt, R. (2020) focus on platform cooperativism within second-hand markets, specifically second-hand books. Their study explores the ethical implications of profit-driven platforms and how cooperative models, where users have greater control over the platform's operations, offer an alternative that promotes fairness and sustainability. This cooperative approach can be applied to general pre-owned merchandise systems to create more inclusive and community-oriented platforms.

III. PROPOSED METHOD

The primary purpose of this project is to create a platform for buying and selling pre-owned merchandise. It enables sellers to list their used products and buyers to browse available items, search by category, price range, and location, and initiate purchases based on product details. The system is designed to provide a user-friendly interface for both sellers and buyers, allowing seamless transactions. Additionally, the system provides functionalities such as feedback and ratings, which help future buyers make informed decisions. Admin functionality ensures control over users and products, maintaining system integrity.

In the existing market, there are multiple platforms for selling and buying pre-owned goods, but most have certain limitations:

- Lack of streamlined feedback and rating systems.
- Poor categorization, making it difficult for buyers to filter products effectively based on location or price.
- Inconsistent admin control, leading to issues in monitoring users and products.
- Limited ability for users to directly contact sellers to finalize deals.

1.5 Proposed System

The proposed system aims to overcome the limitations of existing platforms by offering a streamlined solution for both sellers and buyers:

- **Admin Functionality**: Admins can log in securely, manage registered users, view product listings, and monitor feedback and ratings for all products. This provides a robust control over the platform.
- **User Registration and Login**: The system allows new users (buyers and sellers) to sign up easily and log in using credentials. Sellers can upload product

details and photos, while buyers can search for products using multiple filters (category, price, location) and view the seller's contact information for direct purchase negotiations.

- **Enhanced Feedback and Rating**: Buyers can leave feedback and ratings on products, improving transparency and trust within the system. This also helps future buyers in decision-making.
- **Seamless Search and Purchase**: Buyers can search products with ease based on various filters, retrieve detailed product information, and contact the seller directly, speeding up the buying process.

IV. RESULTS

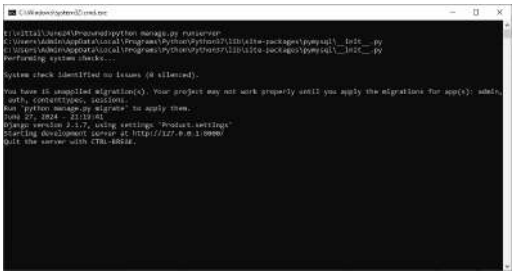
In this project we have completed following functionalities

1) Admin Login: admin can login to system using username and password as 'admin and admin'. After login admin can view all registered users, list of available products and feedback and ratings of different products
2) New User Sign up: new user can create profile to sign up with the application
3) User Login: any seller or purchaser can login to system, seller can add product details, buyer will search products based on category, price range and locations and can view all retrieve product details along with photo. Buyer can get owner contact number to confirm purchase deals. Users can add feedback and ratings to desired products

Note: u ask for real time transactions but it required real account and pan card details to setup real transaction which is not possible in academic projects.

To run project install python and then install all packages given in requirements.txt file and then install MYSQL database and then open MYSQL console and then copy content from DB.txt file and paste in MYSQL console to create database.

Now double click on 'run.bat' file to start python server and get below page.



In above screen python server started and now open browser and enter URL as http://127.0.0.1:8000/index.html and press enter key to get below page

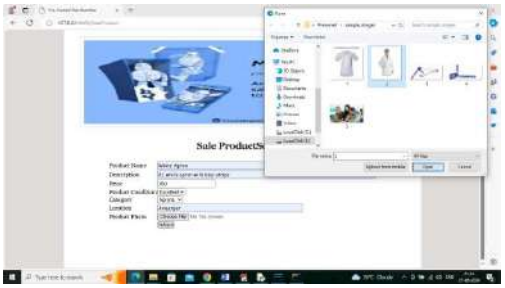
In above screen click on 'New User Signup Here' link to get below sign up page

In above screen user is entering sign up details and then press button to get below page

In above screen sign up task completed and similarly you can add any number of users who can login as seller or buyer. Now click on 'User Login' link to get below page

In above screen user is login and after login will get below page

In above screen user can click on 'Sale Product' link to add product details like below screen

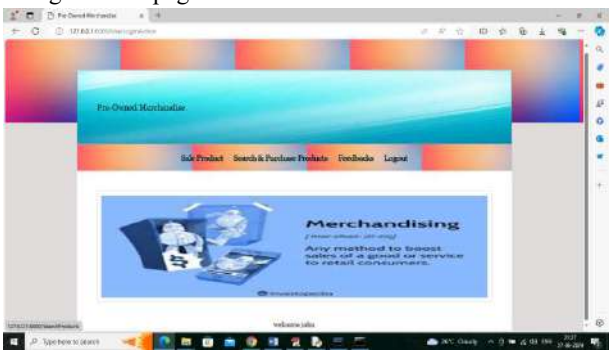


In above screen user is adding new product details and then uploading related images and now click on 'Submit' button to get below page

In above screen product details added with product id as 1 and similarly you can add any number of products

In above screen adding another product details and now logout and login as another user to view or search products

In above screen other user is login and after login will get below page



In above screen user can click on 'Search & Purchase Products' link to get below page

In above screen user is selecting desired product search criteria and then press button to get below search page

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In above screen user can see all product details based on search criteria and user can see owner name and contact number to confirm purchase and now click on 'Feedback' link to give feedbacks

In above screen user will give ratings and feedback for selected product and then click on 'Submit' button to save feedback

In above screen user feedback accepted and now logout and login as 'admin' to view all details

In above screen admin is login and after login will get below page

In above screen admin can click on 'View Registered Users' link to view all user details

In above screen admin can view user details and can click on 'View Products' link to get below page

In above screen admin can view list of available products and now click on 'View Feedback' link to view all feedbacks like below screen

In above screen admin can view all feedbacks from all users.

Similarly by following above screens users can sale or purchase merchandise products

V. CONCLUSION

The **Pre-Owned Merchandise System** provides an efficient and user-friendly platform for buying and selling second-hand products. Developed using the Django framework with a MySQL database, the system offers a robust backend to handle data management and user interactions. It includes functionalities for both buyers and sellers, with features such as product listing, searching, filtering, and feedback mechanisms. The admin interface ensures smooth operation by allowing oversight of all users, products, and feedback. While real-time transaction functionality is not included due to the complexities of integrating financial systems, the platform successfully facilitates contact between buyers and sellers to negotiate deals offline. The system is designed to be scalable, meaning future enhancements could incorporate secure payment gateways if required. This project demonstrates the effective use of web technologies to create an online marketplace for pre-owned goods, offering significant convenience for users and contributing to a more sustainable way of shopping.

REFERENCES

1. Bakos, Y. (1998). "The emerging role of electronic marketplaces on the Internet." *Communications of the ACM*, 41(8), 35-42.
2. Ghose, A., & Ipeirotis, P. G. (2011). "Estimating the helpfulness and economic impact of product reviews: Mining text and reviewer characteristics." *IEEE Transactions on Knowledge and Data Engineering*, 23(10), 1498-1512.
3. Einav, L., Farronato, C., Levin, J., & Sundaresan, N. (2016). "Auctions versus posted prices in online markets." *Journal of Political Economy*, 124(6), 1213-1268.
4. Resnick, P., Zeckhauser, R., Swanson, J., & Lockwood, K. (2006). "The value of reputation on eBay: A controlled experiment." *Experimental Economics*, 9(2), 79-101.
5. Zhu, K. X., & Kraemer, K. L. (2005). "Post-adoption variations in usage and value of e-business by organizations: Cross-country evidence from the retail industry." *Information Systems Research*, 16(1), 61-84.
6. Le, H. T., & Cohen, A. J. (2021). "Exploring the growth of second-hand e-commerce." *Journal of Business Research*, 123, 225-237. Investigates the rise of second-hand e-commerce platforms and their environmental and economic impact.
7. Al-Debei, M. M., & Avison, D. (2010). "Developing a unified framework of the business model concept." *European Journal of Information Systems*, 19(3), 359-376. Offers a business model framework that can be applied to online platforms such as second-hand merchandise systems.
8. Stahl, D. O., & Schwartz, M. (1996). "Internet auctions." *Information Systems Research*, 7(3), 236-248. Studies the role of auction systems in online marketplaces.