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Product Screwganising App Development

Ruba R[1], Dr E. K. Girisan[2]

[1]111 Bsc CT, [2]Guide

Department of Computer Technology, Sri Krishna Aditya College of Arts Science

ABSTRACT

The purpose of this Android application is to bring revolution in online shopping by offering integrated Many e-commerce forums to find, compare and buy products Websites. By collecting product information including price, color, facilities and customers Review, appliances users use to make informed procurement decisions effectively. key. The facilities include advanced search functionality, extensive product comparison, stronger Felt and sorting options, and a personal wishlist. Adds the challenges to the app Time recording of product search and inconsistent information on various platforms provides a spontaneous and practical shopping experience.

INTRODUCTION

With today's digital age, online shopping has become an integral part of the consumer. To find the desired product to the best value and there may be one with optimal features. Time -consuming and process of despair. Users often have to go on many e-commerce. Websites manually compare prices, and many products read reviews. The purpose of this project is to respond to this process by developing an Android application that collects the product.

App will activate users:

1. Search for products using keywords, filters and advanced search options

.2. Compare product prices, features, specifications and customer reviews.

3. Sort products based on the desired criteria (color, size, price range, etc.).

4. Manage and manage the wish list for future reference.

5. Detailed product information including images, details and rankings.

The main purpose of this Android application is to develop an integrated action platform that collects product information from many e-commerce websites, giving users a simple, spontaneous interface to search, compare and buy. By integrating data, colors, features and data from different online platforms, the app aims to strengthen users to make more informed purchase decisions, saving them time and effort spent navigating in many websites. Another main goal is to improve the user experience by using advanced search functionality and comprehensive product comparison tools. These features will allow users to easily filter, sort

and evaluate products in different e-commerce platforms, improve the decision and help them find the best deals. By integrating strong filtering and sorting options, the app will ensure that users can easily limit the search results according to their preferences and requirements. In addition, the app aims to customize the experience of buying through the inclusion of a wishlist. This will allow users to track and manage their favorite products, which will make it easier for them to repeat the desired objects without finding them repeatedly. This individual approach will contribute to a more attractive and user -centered experience.

OBJECTIVE

The application wants to cope with some common challenges related to online shopping, such as time production of products and incompatible information on different platforms. By collecting and standardizing the product details in one place, the app will eliminate users the need to cross reference to more websites, which will provide a more efficient and streamlined purchasing process.Finally, the overall goal of the app is to provide a practical and accessible shopping experience for users. Through integration of the features designed to store your spontaneous interface and time and improve the decision, the app aims to provide an effective solution for modern online shopping needs.

PROPOSED SYSTEM

Product information from many e-commerce websites. It provides a centralized location.Users to find, compare and buy products.The proposed system is an integrated product search and comparison platform collecting

Large properties include:

1. Controlling product database: a huge reserves of products from different Online dealers.

2. Advanced search features: Lets users refine search results Specific criteria (value, brand, color, size, etc.).

3. Product comparison: Enables comparisons side by side of many products.

4. Customer Review and Assessment: Acceptance and Customer Reply shows Different platforms.

5.Price tracking: Monitor price alerts to raise and drop users in prices.

6. Wishlist functionality: Lets users save products for later rating.

BENEFITS OF PROPOSED SYSTEM

Time-saving: Reduces the time spent searching for products across multiple websites.

Improved Decision Making: Provides comprehensive product information to facilitate informed choices.

Cost Savings: Helps users find the best prices for desired products.

Enhanced User Experience: Offers a unified and convenient shopping platform.

Increased Customer Satisfaction: Addresses pain points of traditional online shopping.

Potential for Monetization: Can generate revenue through advertising, affiliate marketing, or premium features.

Existing System

Currently, users rely on individual e-commerce websites to search for products. To compare products across different platforms, they need to visit multiple websites, manually search for the desired item, and then compare prices, features, and customer reviews. This process is time-consuming, inefficient, and often leads to suboptimal decision-making.

DRAWBACKS OF EXISTING SYSTEM

Time-consuming: Users spend considerable time visiting multiple websites to find the desired product.

Inconsistent Information: Product information, including pricing, availability, and descriptions, may vary across different platforms. Difficulty in Comparison: Comparing products from different websites is challenging due to inconsistent data formats and presentation. Lack of Comprehensive Information: Individual websites may not provide detailed product information or customer reviews.

User Fatigue: The process of searching multiple websites can be overwhelming and frustrating for users.

Suboptimal Decision Making: Without a comprehensive overview of product options, users may not find the best value or product that meets their needs.

SYSTEM ARCHITECTURE

The system architecture of the proposed online shopping aggregator application is structured to provide an integrated and spontaneous user experience, which ensures effective product discovery, comparison and purchase. Architecture consists of several layers that are harmonious to collect product data from different e-commerce platforms, process it and provide relevant information to users in an intuitive way.The top layer has a user interface (UI), designed with Android SDK to give users a simple and responsible experience. UI enables users to search for products, use filters, compare items and compare side by side and manage their personal wish list. It provides easy navigation and access to features that allow users to find the best deals based on their preferences.The application forms the core of the logic layer application, which handles the essential functionalities such as the treatment of user inputs, interacts with external data sources and manages user preferences. This layer includes modules for search and filtration, which treat users and delineates the results based on various criteria such as price, marks or features.Comparison engine collects product details from multiple platforms, so users can compare prices, features and reviews. In addition, the individual recommendation system proposes wishlist Management System allows users to store based on user history, while the Their favorite products for future references.The data aggregation layer is responsible for collecting product information from several external e-commerce platforms. This process can be obtained online through scraping techniques online or using APIs provided by these platforms. The data aggregator ensures that the data collected is clean, consistent and standardized, from which this application is ready for use in the logic layer. This layer is important to maintain the integrity of the product information that floats in the application.On Backend, the Backend

Server team acts as a broker between mobile applications and external data sources. It is responsible for managing the database, where user data,product information and search history are stored. It also handles the server user approval and authority, and ensures data security. Back supports shooters to allow users to access products and preferences stored on multiple devices. Residual APIs are made aware of the app to recreate the product data and sync that real -time update.The data processing team plays an important role in the processing of raw data received from external sources. This layer acts as data generalization, where different product properties such as values, colors and features are standardized. In addition, data verification ensures the accuracy of information, while data improvement integrates the product recommendations to review the customer and improve the user experience.

Security considerations

First, computerization and standardization processes must include security measures to protect the integrity of information. Since the product data is collected from external sources such as e-commerce sites, it is necessary to validate this data to ensure that they are not converted or tampered with during transfer. A safe has -Salgorithms can be used to verify the integrity of incoming data, and ensure that product details such as prices, features and customer reviews have not been compromised. In addition, the system should ensure that any data campaign, such as customer reviews or recommendations, is delivered safely, avoids the insertion of malicious data or false reviews. For notification and alert systems, which inform users of price drops, the availability of products or specific changes, security becomes even more important. Information and e-mail sent to users should be safely distributed to prevent cutting or unauthorized access. To achieve this, all communication between mobile applications and alert servers must be encrypted using TLS (transport layer security). This ensures that sensitive data, such as user preferences or specialist elements, cannot be cut off during transmission. In addition, e -mail information should be carefully controlled to avoid phishing risk or spam. The system should confirm the authenticity of the E -Post and ensure that they are sent from a reliable source to avoid malicious exploitation. In addition, all user -specific data used to customize recommendations or information should be safely stored and sent. Individual data should never be shared with third parties without clear consent to the user, and strict access control guidelines should be used to limit access to user profiles.

USED TECHNOLOGIES

The development of online shopping aggregator -app uses a series of modern techniques to ensure a simple, efficient and secure user experience. The essence of the application is Android SDK (software Development Kit), which is used to create a mobile application for Android devices, which ensures even performance and a responsible user interface. For the fronT Java or Kotlin programming language is used, enabling the advanced features of the app, such as search functionality, comparing product and development of individual recommendations. To collect product data from different e-commerce platforms, utilize the application web-scraping techniques and integrate residual APIs. Web scraping allows the production of product details such as price, colors, functions and customer reviews from e-commerce sites, while APIs provided by partner platforms enable safe and efficient data exchange. The apps backend uses Node.JS or Python frameworks to handle API requests, data aggregation and processing, ensures scalability and flexibility. For data storage and management, the application product uses MySQL or NOSQL database (eg Mongodb) based on the composition and requirements for the user data. These databases store product descriptions, user profiles and search history, and provide speed and synchronization of data in devices. To provide secure user authentication and data privacy, the Oauth 2.0 application uses on safe login and user authority. In addition, the SSL/TLS encryption ensures safe communication between the mobile app, the Backend server and the external API, which protects user data from cutting off.

CONCLUSION AND FUTURE SCOPE

After a decade, the advancement and innovation of technology help people to manage their tasks easily and efficiently. Many other industry areas have been used to assist their business growth a long time ago, therefore it is also a trend that causes the F & amp;B industry to make use of a management system for their business. At the end of this project, the system can reduce and replace the human manpower task, reduce the time consumed for each transaction and generate reports for further management purposes by fully utilizing the system. Obviously, the proposed system can help improve the productivity of the restaurant and thus directly had an impact on the profitability of the restaurant. Furthermore, it can also help restaurants to reduce the cost of operation in terms of manpower, because the system has already facilitated the majority of the business process by using the system. Therefore, it is believed that the system can lead the restaurant's business to grow from time to time.On the other hand, the technology nowadays allows the portability requirement to be easy to achieve. Therefore, portability has become one of the factors that have to take into consideration in the system development process. Because portability brings a lot of benefits to users while they use the system such as it provides convenience, accessibility, easy to communicate, etc. Hence, portability has had an impact on society that everybody is much more preferable to complete their task with portable devices. In order to fulfill these requirements, our proposed method is to combine the food ordering system which is in the mobile platform into the restaurant management system which is in the computer platform. The integration of both features develop a system that can let users have an experience of portability where the user can process their food ordering through using their smartphone or tablet. Besides, restaurant manage their daily operation management through using the computer platform it is because computer have some other features such as it has a wider screen, other compatible system that can help to manage the restaurant and some other driver that needed to communicate with those necessary hardware.

REFERENCE

1 This journal covers mobile computing systems and technologies, including app development, mobile platforms, and distributed computing. IEEE Transactions on Mobile Computing

2.While broader in scope, this journal regularly publishes research on mobile app development, software engineering methodologies, and tools used for building mobile applications. Journal of Systems and Software.

3.While not strictly limited to mobile apps, While not strictly limited to mobile apps, this journal often publishes studies that evaluate app development practices and methodologies through empirical research. Empirical Software Engineering

4. Journal of Systems and Software

5 It features articles on software engineering and app methodologies.ACM TOSEM