



# SHOPWISELY – THE ULTIMATE PRICE COMPARER

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**Abstract :** Customers are faced with an abundance of options in the quickly changing world of online shopping and food delivery, which makes it difficult and time-consuming to find the best offers and affordable solutions. ShopWisely has come to light as a trailblazing answer to this problem, providing consumers with a thorough platform for comparing costs from top e-commerce sites like Amazon and Flipkart as well as popular meal delivery services like Zomato and Swiggy. ShopWisely is an online project that makes it easy for people to make educated purchases. It accomplishes this by compiling real-time pricing information from several sources, giving consumers a comprehensive picture of their choices. With an attractive and user-friendly design, the platform's main objective is to expedite the online shopping and meal ordering process, eventually.

**Index Terms:** Amazon, flipkart, price comparison, swiggy, zomato.

## I. INTRODUCTION

In recent times, the e-commerce sector has experienced unparalleled expansion as a result of millions of customers utilizing online platforms for their buying needs. With so many e-commerce sites and products available, it can be difficult for customers to make wise purchases. Price comparison engines have become indispensable resources for consumers in the digital age, assisting them in finding the greatest offers, economizing, and streamlining the online buying process. ShopWisely is one such well-known participant in the e-commerce price comparison engine space. ShopWisely is a platform that helps customers purchase products from a variety of e-commerce websites by comparing pricing, reading product reviews, and making educated decisions.

## II. PROBLEM STATEMENT

In the rapidly evolving e-commerce and food delivery environment, customers face a daunting challenge characterized by a vast array of choices and rapidly changing dynamics. This problem is exacerbated by the time and effort it takes to research and identify the best deals and financing options. The lack of a centralized and user-friendly solution leads to an urgent need for a comprehensive platform like ShopWisely to address the following key issues: Choice Overload: With many online platforms and services offering numerous products and food choices, customers are overwhelmed with choices. This abundance can lead to decision fatigue and confusion, hindering their ability to make informed and cost-effective decisions. Constantly changing prices and offers between different online stores and food delivery services cause differences in information. Customers often have difficulty obtaining up-to-date and accurate prices, which raises doubts about the reliability of the information they find. Researching and comparing the prices of different platforms is time-consuming and labor-intensive. This can prevent clients from making effective decisions because they may lack the resources and tools to improve their research. Many existing solutions lack user-friendly interfaces and features that simplify the online shopping and grocery shopping process. The lack of tools like personalized search recommendations and price filter systems hinders the user experience. Due to the proliferation of various digital devices, customers expect access to essential services on devices of their choice. The lack of cross-device accessibility in existing solutions limits convenience and accessibility for a diverse user base. Lack of real-time price data can lead to outdated and unreliable data. Customers need a reliable resource that ensures the accuracy of the information they rely on to make decisions.

## III. LITERATURE SURVEY

1) Title: E-Commerce with Price Comparison, Price Alert and Fake Review

Published: 2021

This paper addresses the threat of phishing in e-banking and e-commerce by using machine learning algorithms to distinguish legitimate, suspicious, and phishing websites. Various metrics are employed to evaluate algorithm accuracy. Efficient

automated analysis of website legitimacy. Enhances user security in e-commerce and e-banking. Dependence on accurate data for algorithm training. Limited effectiveness against highly sophisticated phishing sites. Potential false positives or negatives in classification.

2) Title: Price Comparison for Products in Various E-Commerce Website

Published: 2023

This proposed system focuses on aiding users in making informed purchasing decisions by comparing prices across various e-commerce platforms. Empowers users to find the best prices for desired products. Enables comparison of product characteristics within the same. Reliance on web scraping may face legal and ethical considerations. Limited effectiveness if e-commerce sites have robust anti-scraping measures.

3) Title: Price Comparison Website for Online Shopping

Published: 2021

The "Price4You" project serves as a platform for consumers to efficiently compare prices of various goods and services online, aiding them in making cost-effective purchasing decisions. Saves consumers time and effort by providing a centralized platform for price comparison. Enables shoppers to find the best deals and save money on their purchases. Potential legal and ethical considerations related to web scraping techniques. Effectiveness may vary if certain e-commerce sites have strong anti-scraping measures.

#### IV. PROPOSED SOLUTION

ShopWisely provides a complete answer to the problems posed by the ever-changing e-commerce and food delivery industries. It recognises that customers frequently feel overwhelmed by the sheer number of options available to them, leading to decision fatigue. ShopWisely streamlines the decision-making process by centralizing comparisons of products and food options from several platforms. Updates on prices in real time from various providers guarantee that consumers have access to the most recent information. This answers questions regarding the accuracy of the data presented. The platform's intuitive design, which includes a pricing filter system and customised search suggestions, expedites the research process and helps customers save significant time and effort. Additionally, ShopWisely places a high priority on cross-device accessibility, acknowledging the variety of ways that people interact with digital platforms. In general, ShopWisely is a dependable source that is ready to improve the online shopping and food ordering experience by giving consumers precise, current information and easy-to-use tools to help them make wise decisions.

#### V. METHODOLOGY

The methodology employed in the development and implementation of ShopWisely integrates a range of modern technologies and methodologies to ensure efficiency, accuracy, and user satisfaction. From data gathering to testing, each stage of the development process is meticulously planned and executed to deliver a seamless pricing comparison platform.

1) Data Gathering: ShopWisely gathers pricing information from a variety of sources, including e-commerce websites such as Amazon and Flipkart, as well as food delivery services like Zomato and Swiggy. Through web scraping techniques, relevant data such as product prices, descriptions, and availability are collected in real-time. Git and GitHub are utilized for version control and collaboration among the data gathering team, ensuring that updates and changes are tracked and managed efficiently.

2) Frontend Development with React JS: React JS serves as the foundation for the frontend development of ShopWisely, providing a highly responsive and dynamic user interface. Components are built using React's modular architecture, allowing for the creation of reusable UI elements such as search bars, product listings, and price comparison tables. Git is utilized for version control, enabling developers to collaborate on frontend components and manage changes effectively.

3) Implementation of Dynamic Functionality with JavaScript: JavaScript is extensively used to implement dynamic functionality within ShopWisely, enabling features such as real-time price updates, interactive search suggestions, and personalized recommendations. JavaScript libraries and frameworks enhance the user experience by facilitating smooth transitions, dynamic content loading, and client-side validation. Tailwind CSS is employed for styling and design, ensuring consistency and responsiveness across different devices and screen sizes.

4) Backend Development and Data Processing: The backend of ShopWisely is responsible for processing and managing the collected data, as well as handling user requests and interactions. Node.js, Express.js, and MongoDB are used to build a scalable and efficient backend infrastructure. Data processing algorithms are implemented to analyze and organize pricing information, ensuring accuracy and relevance for users. Git and GitHub are utilized for version control and collaboration among backend developers, enabling seamless integration with the frontend.

5) User Testing and Feedback Incorporation: ShopWisely undergoes rigorous user testing to identify and address usability issues, bugs, and performance concerns. Test scenarios are designed to simulate real-world usage scenarios, allowing testers to provide valuable feedback on the platform's functionality and user experience. Feedback is collected and analyzed using tools such as GitLab issues and project boards, enabling developers to prioritize and address issues effectively. Iterative development cycles

ensure that ShopWisely evolves in response to user needs and preferences, resulting in a highly refined and user-friendly platform.

6) Deployment and Continuous Integration: ShopWisely is deployed using a continuous integration and deployment (CI/CD) pipeline, ensuring that updates and changes are deployed to production seamlessly. Automated testing scripts are executed to validate the integrity and functionality of the platform before each deployment. Git hooks and GitHub Actions are utilized to automate the deployment process, minimizing downtime and ensuring a smooth user experience. Additionally, monitoring tools are employed to track performance metrics and detect anomalies in real-time, enabling proactive maintenance and optimization of the platform.

## VI. WORKING

**Data Gathering:** Price information is routinely gathered by ShopWisely from well-known websites like Swiggy, Flipkart, Zomato, and Amazon. Customers will always have access to the most recent pricing information available thanks to this data collection, which comes from many sources.

**User Communication:** ShopWisely provides an intuitive user interface that boosts website traffic. Users can interact with the website more easily because of the platform's user-friendly design and layout.

**Lookup and Recommendations:** Customers can use the search bar on the ShopWisely website to look for particular foods or products. By offering rational suggestions in the search area, the platform improves the user experience and aids users in finding pertinent products rapidly.

**Comparison of Prices:** ShopWisely pulls prices from pertinent sources and displays them for users searching for a certain product or food item. Prices from Zomato and Swiggy are presented for food products, and prices from Amazon and Flipkart are given for commerce. With the help of this function, customers may compare costs on several platforms and make well-informed, economical judgments about what to buy.

**Price Mapping:** ShopWisely gives users the ability to further limit their search results by including a price filtering option. Depending on their choices, users can arrange prices either ascending or downward. This feature gives consumers the flexibility to rank affordable or expensive options according to their needs.

**User Choice:** ShopWisely helps customers make wise decisions. Users can choose the best option that fits their needs and budget by weighing their preferences and comparing prices.

**Link to Seller's Website:** When customers choose to buy something, ShopWisely takes them to the website of the particular seller—Amazon, Flipkart, Zomato, or Swiggy, for example. A simple and safe purchasing process is ensured by this seamless integration, which enables customers to finish their transactions on the platform of their choice.

All of these characteristics combine to make ShopWisely an invaluable resource for online shoppers. It gives them access to real-time pricing information, easy-to-use interfaces, effective search and recommendation engines, price comparisons, and the freedom to select options that best suit their tastes and financial constraints.

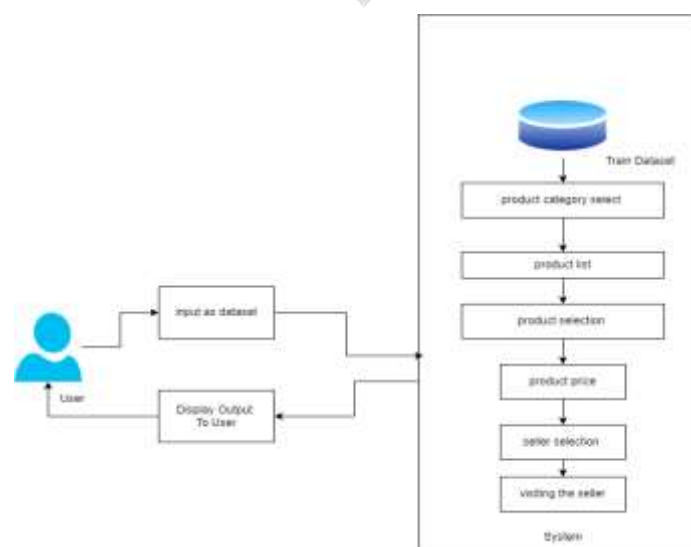


Figure 1. Architecture

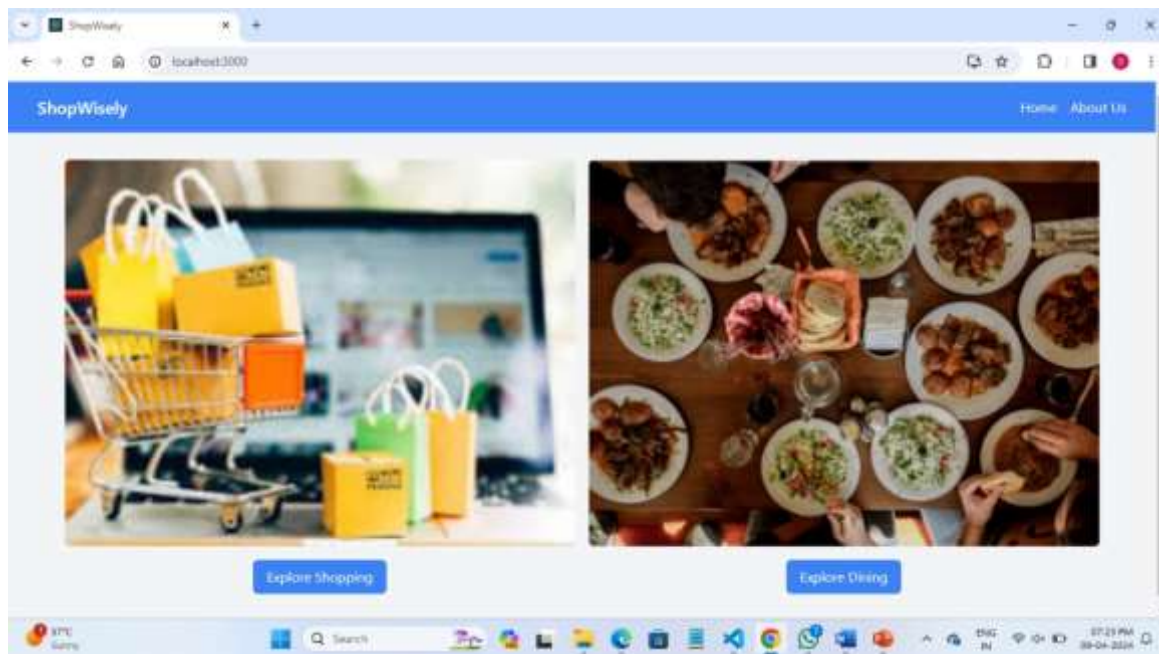


Figure 2. Homepage of Website

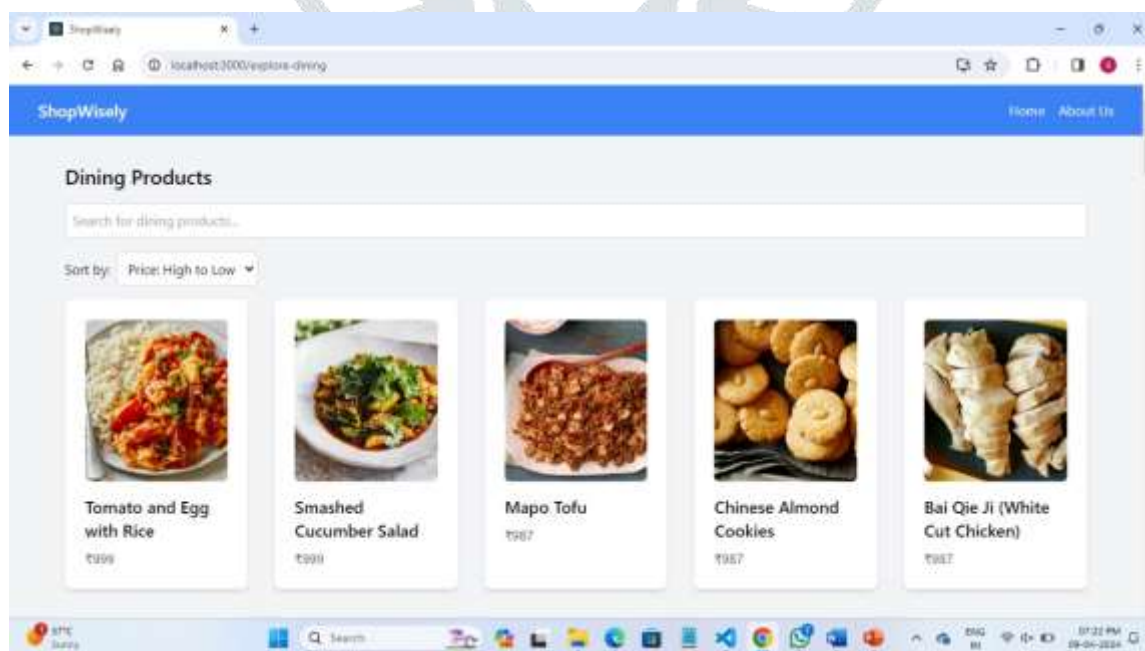


Figure 3. Dining Products

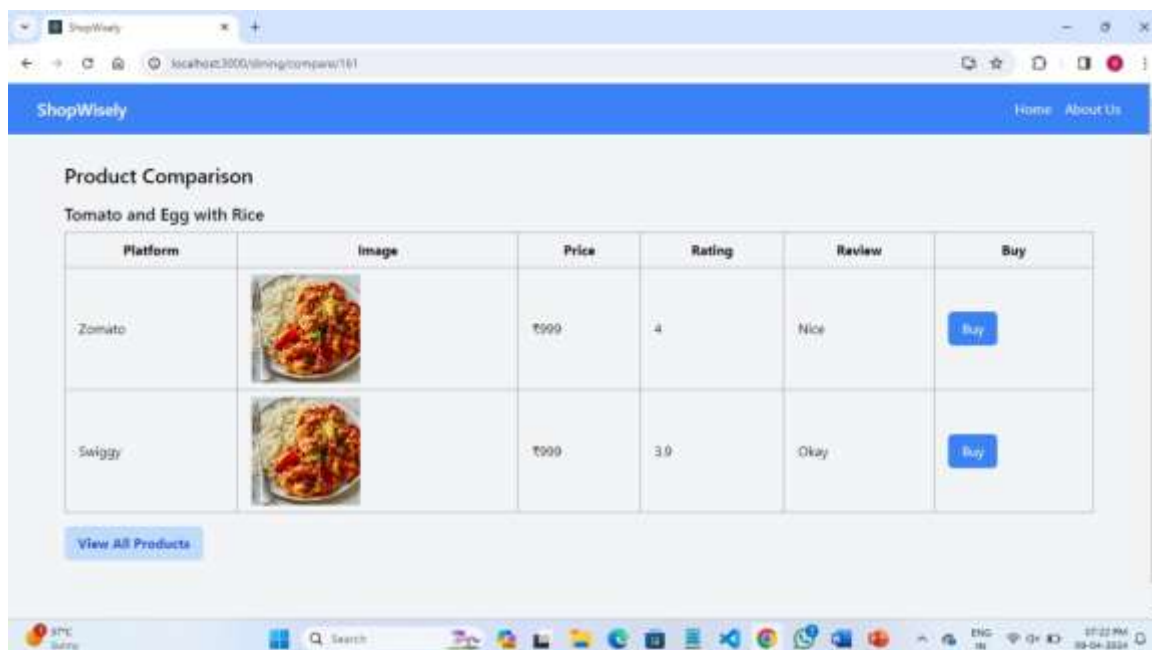


Figure 4. Dining Product Price Comparison

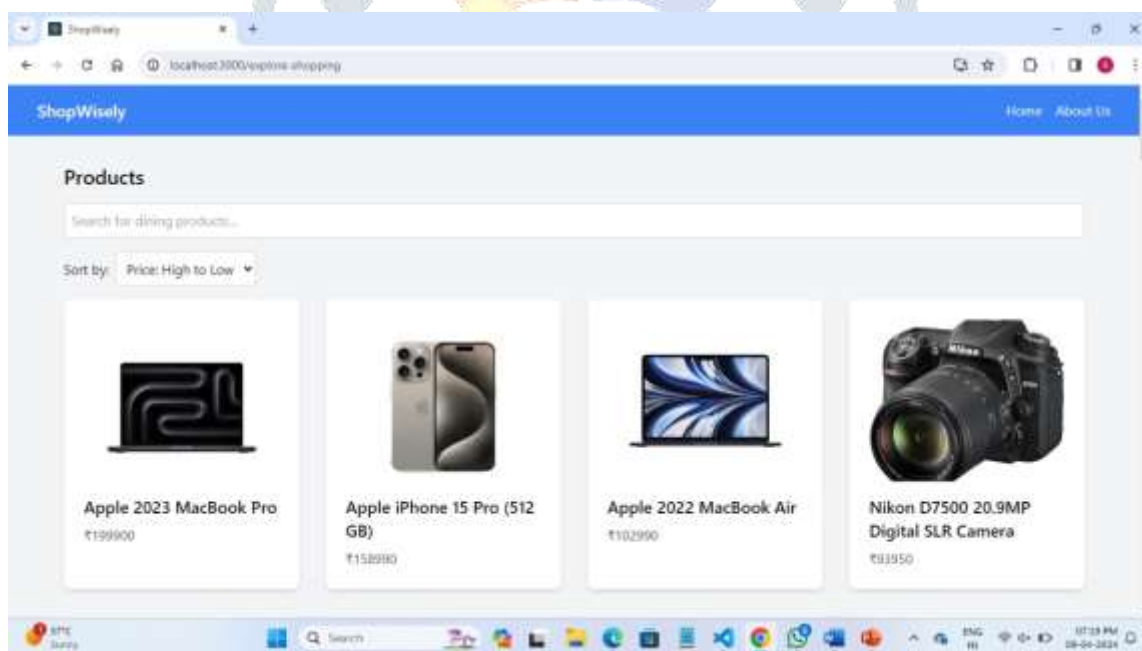


Figure 5. Commercial Products

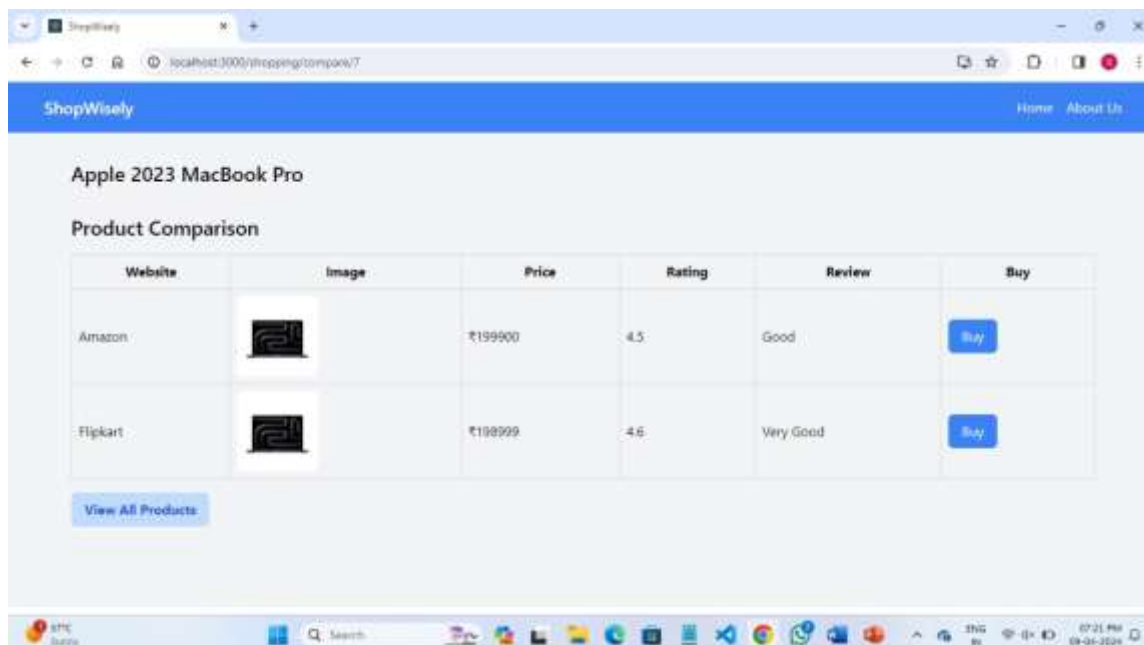


Figure 6. Commercial Product Price Comparison

## VII. RELATED WORK

### A. Decision-Making and Consumer Behavior:

The goal of this study is to comprehend how ShopWisely influences online customer behavior. The following are the main conclusions drawn from this study:

*ShopWisely Usage:* ShopWisely is a popular tool used by customers to find the greatest offers. This implies that users who are budget conscious favor the platform.

*Pricing Transparency:* According to the study, consumers' purchasing decisions are positively impacted by pricing transparency, which is probably a ShopWisely characteristic. This suggests that customers are more likely to make wise decisions when they can quickly compare pricing on the platform.

### B. Platform Design and User Experience:

The goal of this study is to raise user engagement levels and enhance the ShopWisely user experience. Important realizations consist of:

*User-Friendly Interfaces:* The study emphasizes how crucial it is for the platform to have user-friendly interfaces. This implies that consumers should be able to easily browse and understand the design and layout of the website or app.

*Search Bar Suggestions:* The research recommends adding a search bar with suggestions to improve the user experience. Users may find products more quickly and readily as a result of this.

*Filtering Options:* The significance of offering filtering options is emphasized by the research. Users can now more easily locate the products they're seeking for by refining their search results thanks to this feature.

In conclusion, the first research area emphasizes price transparency and user trust while focusing on how ShopWisely influences consumer behavior. The second area of research focuses on improving the platform's user experience through ideas for search bars, filtering choices, and user-friendly interfaces. ShopWisely may find these results useful in enhancing its offerings and drawing in new customers.

## VIII. FUTURE SCOPE

*Integration with Other services:* Adding other e-commerce and meal delivery services to the platform would increase its usefulness.

*Personalization and User Accounts:* By implementing user accounts, saved preferences and personalised suggestions would be possible.

*Price History and patterns:* Giving consumers access to past price information and patterns may be a useful tool for decision-making.

*Mobile Application:* Creating a specifically designed mobile application will improve accessibility and serve people who like purchasing on their phones.

## IX. CONCLUSION

ShopWisely offers a centralised platform for pricing comparison, addressing a critical gap in the online shopping and food ordering experience. Making well-informed shopping selections is made more efficient and convenient by its user-friendly design, search recommendations, and price filtering tools. Even if there are a few possible disadvantages, ShopWisely is a useful tool for consumers looking for the greatest offers and affordable solutions because the benefits greatly exceed the disadvantages.

## X. ACKNOWLEDGMENT

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