

E-Commerce Price Tracker

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Abstract: Price comparison websites are meant to compare the prices of goods and services from a variety of sources, assisting consumers in making decisions to purchase things that will save them money online. Given their hectic lifestyles, especially those who live in cities, most customers prefer to acquire their necessities online because it saves them time. Furthermore, consumers always look for the lowest price when purchasing things; thus, by utilizing a price comparison website, users do not have to drive from shop to shop only to compare the prices given by different stores for the same product. They may just check it on the price comparison website and select where they should buy the things.

Keywords: Price comparison

I. INTRODUCTION

In today's digital age, the online marketplace has witnessed tremendous growth, making ecommerce a vast arena for individuals to make purchases over the internet. The widespread adoption of smart devices and diverse platforms has facilitated users in buying products from virtually anywhere. Consequently, this surge in online shopping activity has propelled the expansion of e-commerce enterprises. However, the sheer number of e-commerce websites frequently overwhelms visitors, making it difficult to navigate and select a certain product across many platforms. The proposed resolution aims to streamline this process for online users, enabling them to discover the best deals for their desired products through a unified web interface that consolidates multiple ecommerce platforms. This not only saves customers time, but also allows them to save money by easily comparing product costs across numerous ecommerce websites. The proposed system extracts relevant data from ecommerce web sites using web scraping techniques and gathers product connections using a web crawler.

- **Motivation:** The goal of developing a price comparison website is to make purchasing easier for customers. Users may rapidly evaluate choices and select the most reasonable one by combining costs from numerous retailers. This not only saves time and effort, but also allows users to save money on their purchases.
- **Scope:** The scope of a price comparison website spans across different product categories, including electronics, fashion, home appliances, and more. It strives to give pricing comparisons for a wide range of items in order to meet the different demands and tastes of consumers. Additionally, it may also include other features such as specifications and other details of that product.
- **Project Outline:** The project outline section provides an overview of the key steps involved in developing a price comparison website. It includes tasks such as data collection from retailers, designing an intuitive user interface, and ensuring regular updates of price information. The ultimate goal is to create a user-friendly and reliable platform for comparison shopping

II. LITERATURE SURVEY

[1] S. Rajendar, K.Manikanta, M.Mahendar, Assistant Prof. (Mrs.) K. Madhav, proposed a research article on Price Comparison Website for Online Shopping. This was published by International Journal of Environmental Science and Technology (IJEST) in 2021. In this article, the authors used the following methodologies -Web Crawler, Web Scraper, Django. The system is concerned with a pricing comparison engine. The initial step is to collect a significant amount of data from various ecommerce websites.

[2] Madhusudhan, Venkatraman Patgar, Bharath S V, Nitin Gopalakrishna, proposed a research article on E-COMMERCE PRODUCT PRICE TRACKER. This was published by Journal of Emerging Technologies and

Innovative Research (JETIR) in 2021. In this article, the authors used the following methodologies - web crawler, dynamic pricing. Because this technology detects pricing discrepancies between websites, the majority of customers will select the service with the lowest price.

[3] Ladislav Beranek, Radium Remes, proposed a research article E-commerce network with price comparator sites. This was published by IEEE Explore (2019). In this article, the authors used the following methodologies - web mining, web crawling. These relative pricing show the price in different e-shops, but also the assessment of the applicable e-shop made by guests.

III. SYSTEM STUDY AND ANALYSIS

Problem Statement:

In today's digital landscape, consumers prioritize attractive discounts, making price a decisive factor in their purchasing choices. However, individually comparing prices across the multitude of online stores is a daunting task. Enter Price Comparison Websites (PCWs), bridging this gap by collaborating with retailers and offering a centralized platform for effortless price comparisons. For consumers, PCWs deliver unmatched convenience, significant savings, and well-informed decision-making. Shoppers can swiftly pinpoint the best deals, ultimately saving both time and money. Simultaneously, retailers enjoy enhanced visibility, targeted marketing opportunities, and invaluable data-driven insights, enabling them to stay competitive in the market. PCWs have revolutionized online shopping, making it seamless and mutually beneficial for both consumers and retailers.

Existing System:

However, despite their advantages, Price Comparison Websites do have their limitations, often lacking a diverse range of features. It's worth noting that the process of logging in and storing data in a database can be complex in certain cases. Retrieving data from a database is another aspect that requires attention, as it involves its own set of intricacies and considerations.

Limitations of the Existing System:

1. **Legality and Terms of Service:** If you scrape content from websites, you can be in violation of their terms of service, which could result in legal problems. Some websites' terms and conditions expressly forbid scraping.
2. **With the older existing system relying on web scraping modules for gathering product data, there are occasional challenges. The system encounters obstacles such as being blocked when repeatedly searching for product information. It's essential to note that while web scraping offers convenience, it's not without complexities and requires cautious management.**
3. **Structure Changes:** Websites often undergo design modifications, requiring constant adjustments in web scraping techniques. offers a consistent data structure, eliminating the need for frequent adaptations.
4. **The main limitation of this price comparison website is mainly focus on price and product details.**

IV. PROPOSED SYSTEM

The proposed system aims to revolutionise the way consumers shop online by leveraging web scraping techniques to provide real-time, accurate price comparisons across a wide range of products and retailers. This project, named "Price Comparison Website Using Web Scraping," is designed to be a comprehensive and user-friendly platform where shoppers can find the best deals with ease.

Web Scraping for Real-Time Data:

The core of the proposed system is the use of web scraping technologies to automatically fetch detailed information from various e-commerce websites. This approach ensures that the price data is always up-to-date and covers a wide range of products and retailers.

1. **Automation:** The system will automatically gather data from numerous online stores, reducing the need for manual updates and minimizing errors.
2. **Comprehensive Coverage:** By scraping data from a large number of sources, the website can provide a more extensive range of products and price comparisons, ensuring that users have access to the best deals available.

Features of the Proposed System

1. **User-Friendly Interface:** The website will feature an intuitive and easy-to-navigate interface, allowing users to quickly find and compare products.
2. **Real-Time Updates:** With continuous web scraping, the price information will be kept up-to-date, ensuring accuracy and reliability.
3. **Advanced Search and Filter Options:** Users will be able to search for specific products and use filters to narrow down their options based on various criteria, such as price range, brand, and retailer.

Benefits to Consumers:

1. **Time Savings:** Consumers no longer need to visit multiple websites manually; the price comparison website consolidates all necessary information in one place.
2. **Cost Savings:** By having access to real-time, comprehensive price data, consumers can make informed decisions and choose the best deals, ultimately saving money.
3. **Convenience:** The website offers a convenient solution for busy individuals, particularly those living in urban areas with hectic lifestyles.
4. **Enhanced Shopping Experience:** The proposed system aims to improve the overall online shopping experience by making it more efficient, reliable, and user-friendly.

V. SYSTEM DESIGN

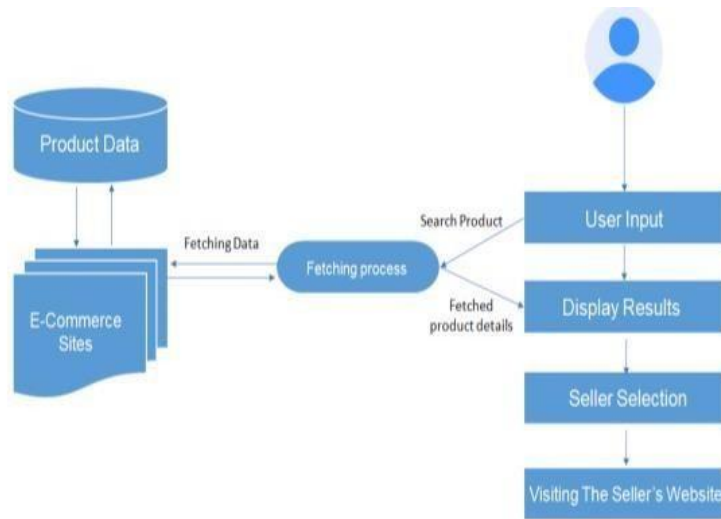


Fig-1 System Design

VI. RESULTS

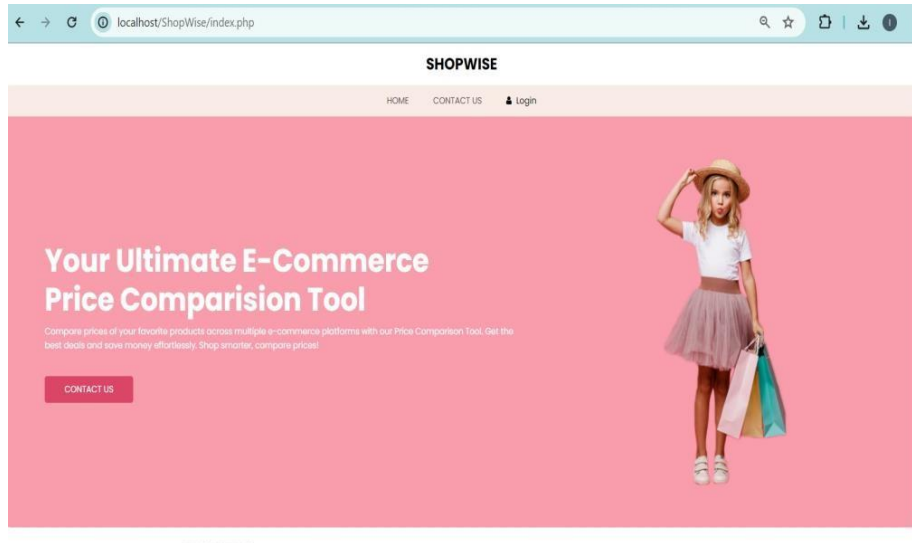


Fig-2 Home Page

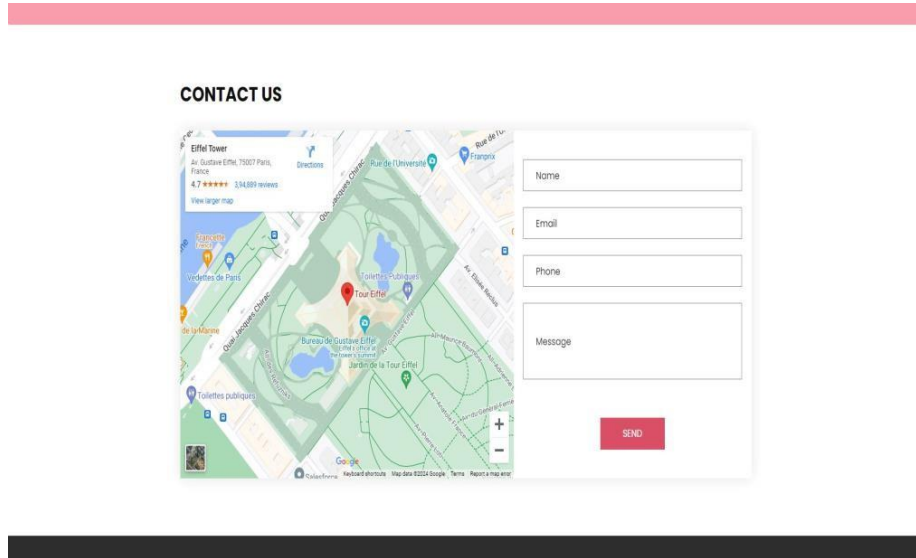


Fig-3 Contact Page

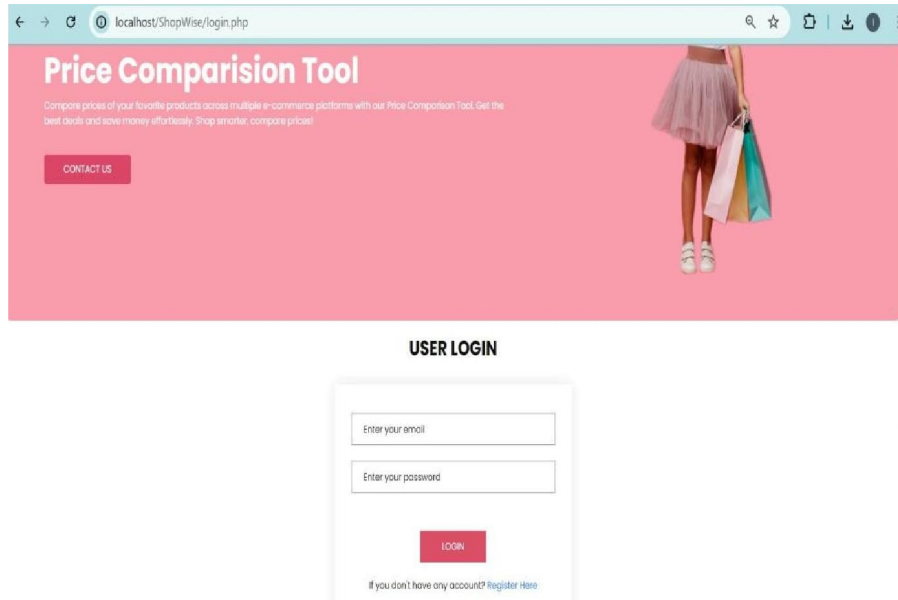


Fig-4 Login Page

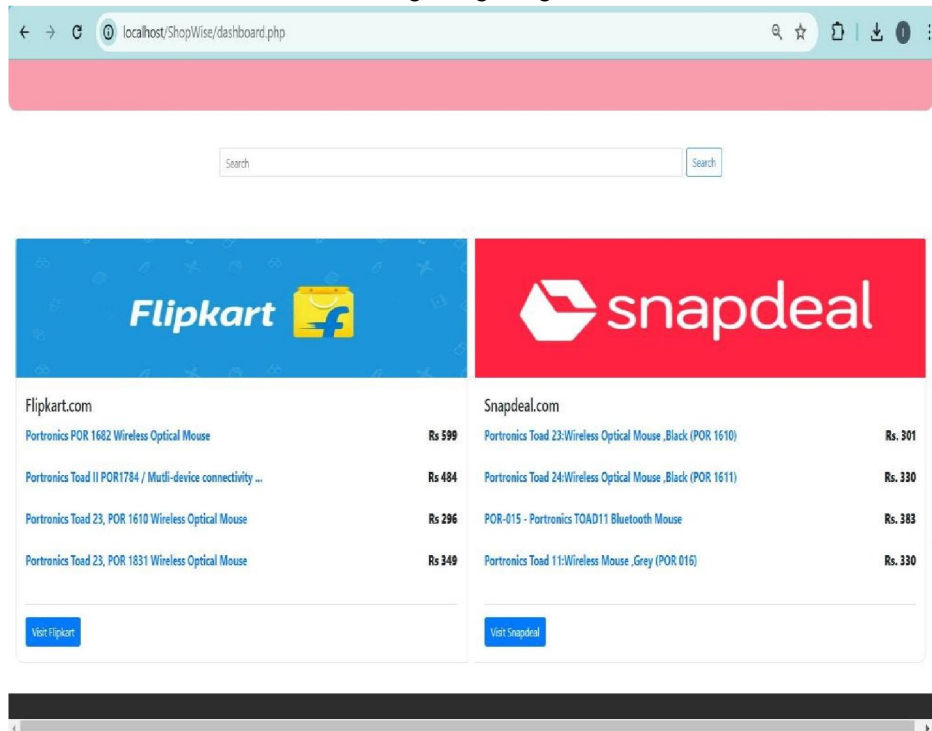


Fig-5 Dashboard Page

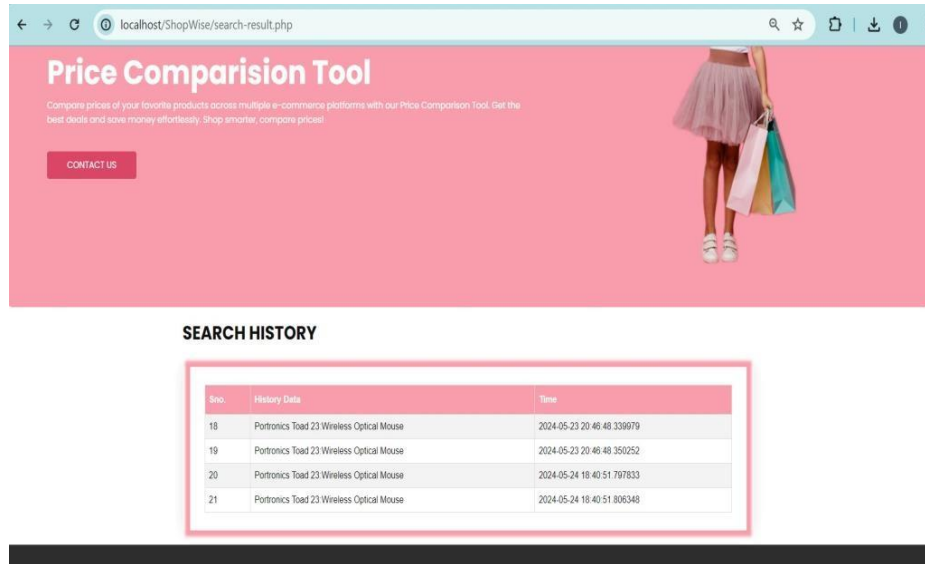


Fig-6 Search History

VII. CONCLUSION

The website provides users with useful data that will help them make educated decisions. This price comparison site deals with the issue of people who work checking prices before making purchases. This website will allow users to compare prices on numerous e-commerce shopping websites in order to locate the best deal on a product. This will undoubtedly save buyers time and effort. Finally, this will bring collectively the best methods, offers, and deals from all major ecommerce companies, making it easier for users to purchase online. Price comparison websites have altered the way we shop by offering ease, savings, and better transparency. Customers should expect a more personalized and efficient online experience as these systems evolve.

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