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# Wish List Products Price Comparison Website

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**ABSTRACT:** Price comparison sites are designed to compare the price of goods and services from a range of providers, which will help consumers in making decision to choose products that will save their money through online. Considering the customers' busy lifestyle especially those who are living in the city area, most of the consumers prefer to buy their needs through the internet because it saves their time. Besides, consumers always go for the cheaper price in purchasing products therefore by using price comparison website, customers do not have to travel from shop to shop only to survey the price offered by different shops for the same product. They can just check it from the price comparison website itself and decide where they should buy the products they need. The place where shoppers could find the great deals on the products. The best deals will be clearly highlighted. To obtain best deals from Price comparison websites web crawlers and web scrapping techniques are used to fetch detailed information. This way, paper aims to provide solution for online customers to buy products at good deal and save their valuable time, effort, and money.

**KEYWORDS:** Price Comparison, E-commerce, Web Scrapping, Web Crawlers, Online Shopping, Consumer Behavior, Product Deals, Cost Saving, Time Efficiency, Smart Shopping, Urban Lifestyle, Digital Marketplace.

## I. INTRODUCTION

The **Wish List Products Price Comparison Website** enhances traditional price comparison by centering around each user's personal wish list. Instead of one-time product searches, the platform continuously tracks items added by users, creating unique watch records that monitor real-time data from major e-commerce platforms like Amazon and Flipkart. A smart rules engine compares the live prices with user-defined targets or historical lows and sends instant alerts via email, SMS, or in-app notifications upon detecting significant price drops. This personalized, event-driven approach ensures users only receive alerts when relevant savings are available, avoiding the clutter of generic deal notifications and helping them make timely, data-driven buying decisions.

The system is built on a modular microservices architecture, featuring a web scraping layer with proxy rotation and CAPTCHA bypass for reliable data collection, a pricing normalization service that unifies currency formats and applies discount codes, and a fast MongoDB-powered wish list database. A message queue like RabbitMQ separates data fetching from alert delivery to maintain responsiveness at scale. Browser extensions and mobile apps allow for quick item tracking and real-time alerts across devices. Monetization comes from affiliate commissions and optional premium features like price history analytics and bulk imports. In the future, the platform's robust backend can also support B2B services such as pricing intelligence for small online retailers, expanding its value beyond individual shoppers.

## II. LITERATURE SURVEY

### 1.Consumer Decision-Making and Online Shopping Preferences:(2022)

**Authors:** Reema Golagana , V.Sravani , T.Mohan Reddy

One of the key limitations of existing price comparison websites is their focus on general product categories rather than personalized, user-specific needs. Most price comparison websites require users to manually search for items across various categories, which can be time-consuming and tedious.

### 2.Price Camparision in Online Shopping(2023):

**Authors:** Chen, Zhang, and Wang

The research entitled 'Comparison sites' was written by Moraga-Gonzalez J.L and Wildenbeest M.R and it was published in 2023. The research was focus on the price comparison sites and its connotation towards market efficiency

and price competition. The price comparison sites attract all the involved parties no matter suppliers or the consumers to its platform as it has become the aggregator of product information.

### 3. An overview on web scraping techniques and tools

**Authors:** AV Saurkar, KG Pathare, SA Gode

With the rapid growth of internet users and technologies, data exchange has increased significantly, leading to vast amounts of unstructured data online. This data overload creates challenges in accessing relevant information efficiently. To address this, researchers have adopted web scraping—a technique for extracting structured data from unstructured web content. Unlike traditional copy-paste methods, web scraping automates data collection using tools like DOM parsing, semantic recognition, and specialized software. Our paper provides an overview of web scraping techniques and tools used for effective information extraction.

## III. METHODOLOGY

The proposed methodology focuses on developing a personalized price comparison system using modular microservices. Users create wish lists, and each item generates a watch record that triggers web crawlers and scrapers using Python libraries like BeautifulSoup, Scrapy, and Selenium. These tools fetch real-time product data from e-commerce platforms such as Amazon and Flipkart. The extracted data is normalized, formatted, and stored in a MongoDB database. A rules engine checks prices against user-set targets or previous lows. When a price drop is detected, notifications are sent via email, SMS, or in-app alerts. A RabbitMQ message queue ensures efficient communication between scraping and alert modules. The backend is developed using Flask or Django, while the frontend uses HTML, CSS, and JavaScript. Browser extensions and mobile apps enhance usability. This approach ensures a real-time, event-driven system that helps users make informed, budget-friendly purchase decisions.

### Architecture:

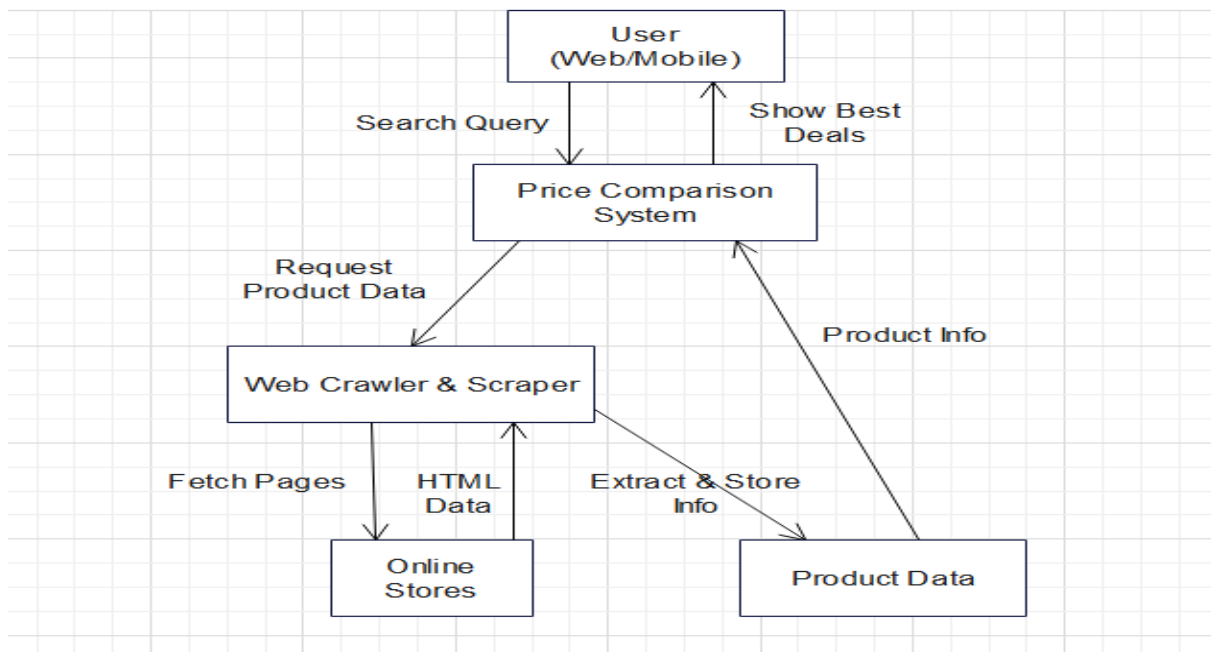


Fig.1 Architecture



#### IV. EXPERIMENTAL RESULTS

##### Home Page

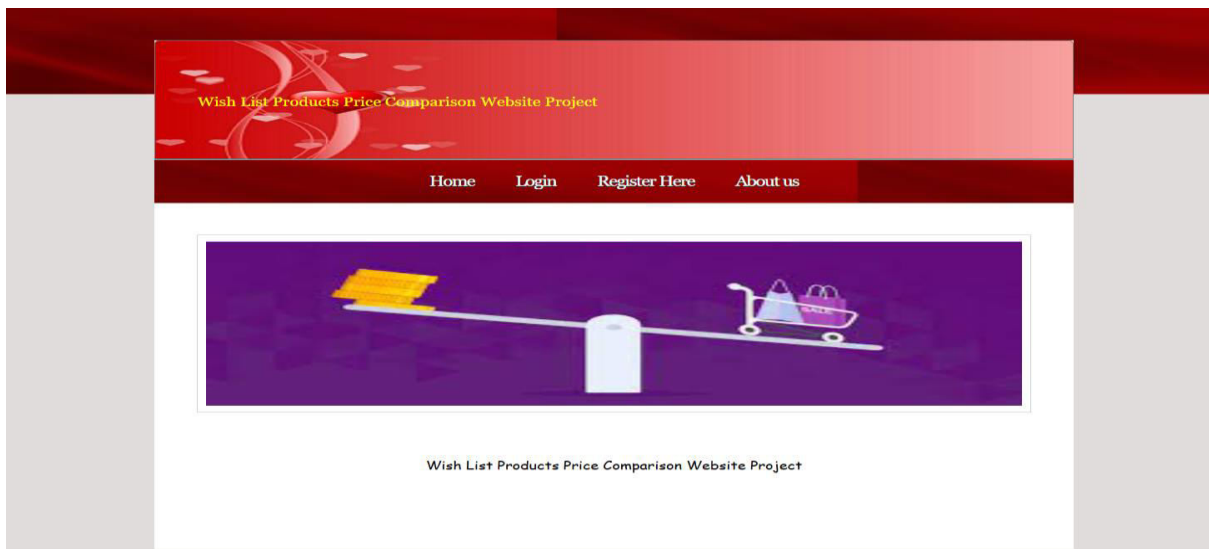
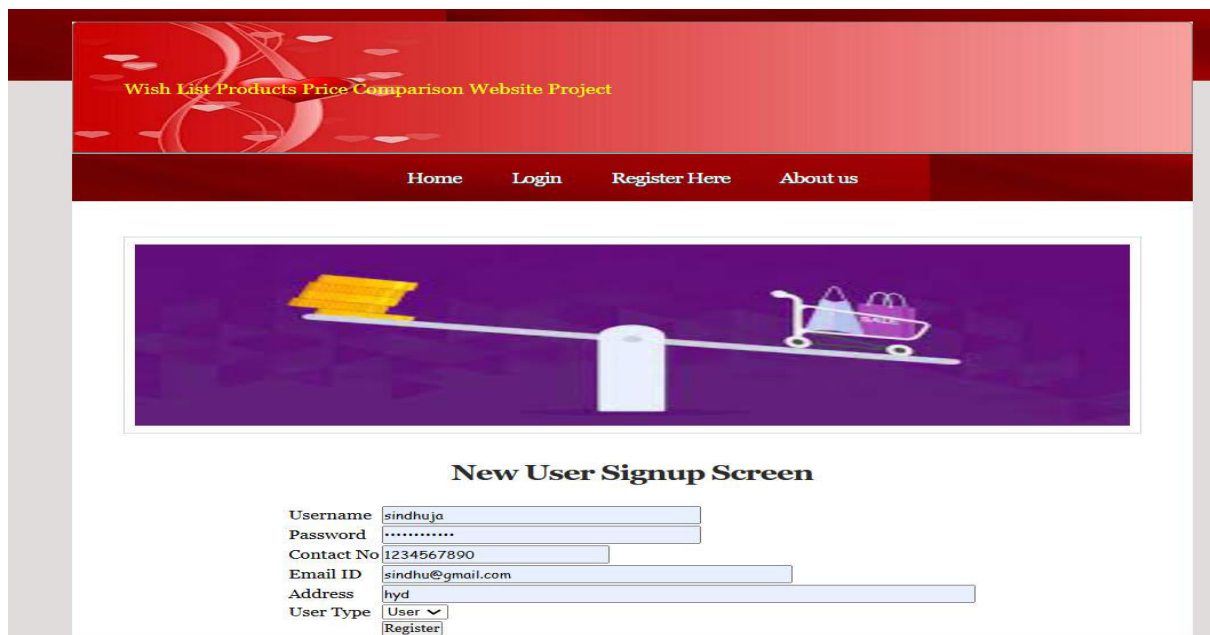


Fig.2 Home page

##### Sign Up



**New User Signup Screen**

Username

Password

Contact No

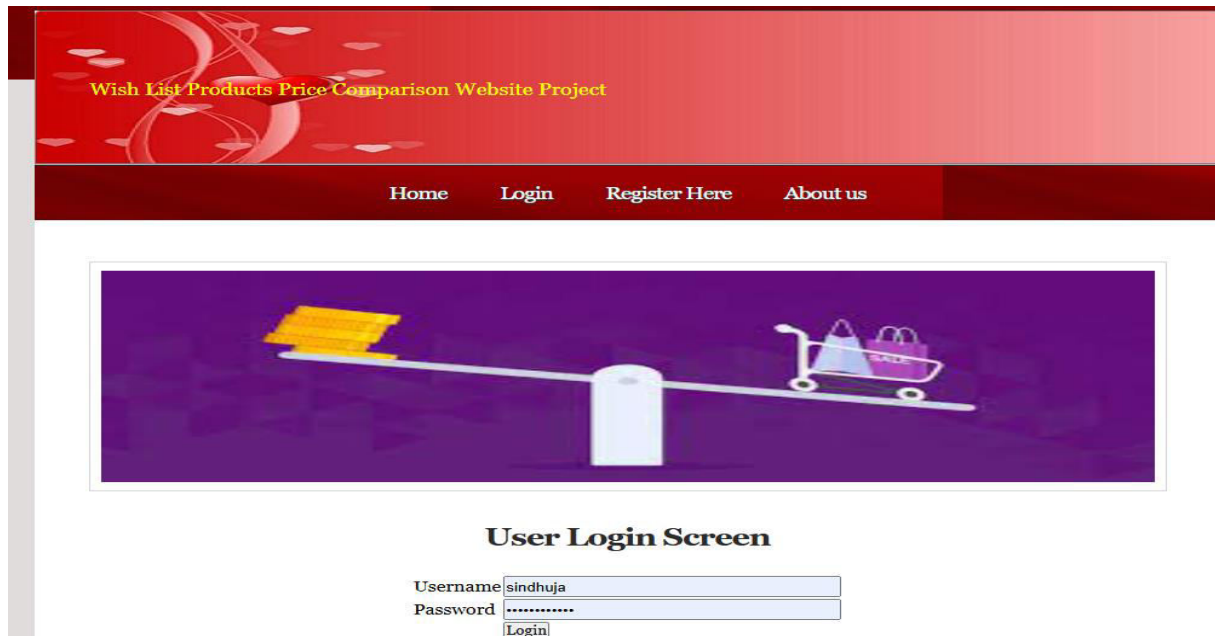
Email ID

Address

User Type

Fig.3 Sign Up

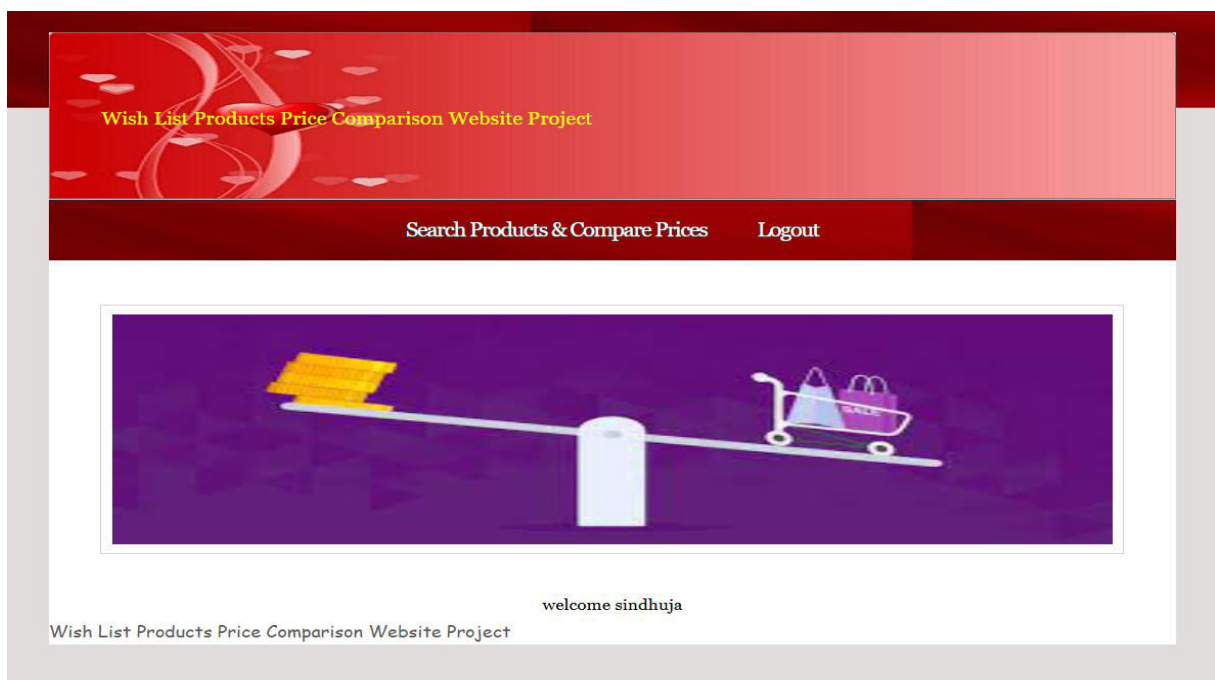
**User Login**



The screenshot shows the 'User Login' interface of the 'Wish List Products Price Comparison Website Project'. The header is red with the project name in yellow. Below the header is a dark red navigation bar with links: Home, Login, Register Here, and About us. The main content area has a purple background with a white balance scale illustration. On the left pan of the scale are yellow books, and on the right pan is a shopping cart with a 'SALE' tag. Below the illustration is the 'User Login Screen' with input fields for 'Username' (containing 'sindhuja') and 'Password' (containing '.....'), and a 'Login' button.

Fig.4 User Login

**Welcome Page**



The screenshot shows the 'Welcome Page' of the 'Wish List Products Price Comparison Website Project'. The header is red with the project name in yellow. Below the header is a dark red navigation bar with links: Search Products & Compare Prices and Logout. The main content area has a purple background with the same white balance scale illustration as in Fig.4. Below the illustration, the text 'welcome sindhuja' is displayed. At the bottom left, the project name 'Wish List Products Price Comparison Website Project' is repeated.

Fig.5 welcome page

### Search Product



### 8.6 Search Product

#### Products Details




Wish List Products Price Comparison Website Project				
Search Products & Compare Prices Logout				
				
Ecommerce Site	Product Description	Image	Price	Visit Website
Amazon	Redmi 10 Power (Power Black, 8GB RAM, 128GB Storage)		₹10,999	<a href="#">Click Here to Visit Website</a>
Amazon	Redmi 10 Power (Sporty Orange, 8GB RAM, 128GB Storage)		₹10,999	<a href="#">Click Here to Visit Website</a>
Amazon	Redmi A1 (Light Blue, 2GB RAM, 32GB Storage)   Segment Best AI Dual Cam   5000mAh Battery   Leather Texture Design   Andro...		₹5,899	<a href="#">Click Here to Visit Website</a>

Fig.7 Product Details

### Output & Products with Price Comparison

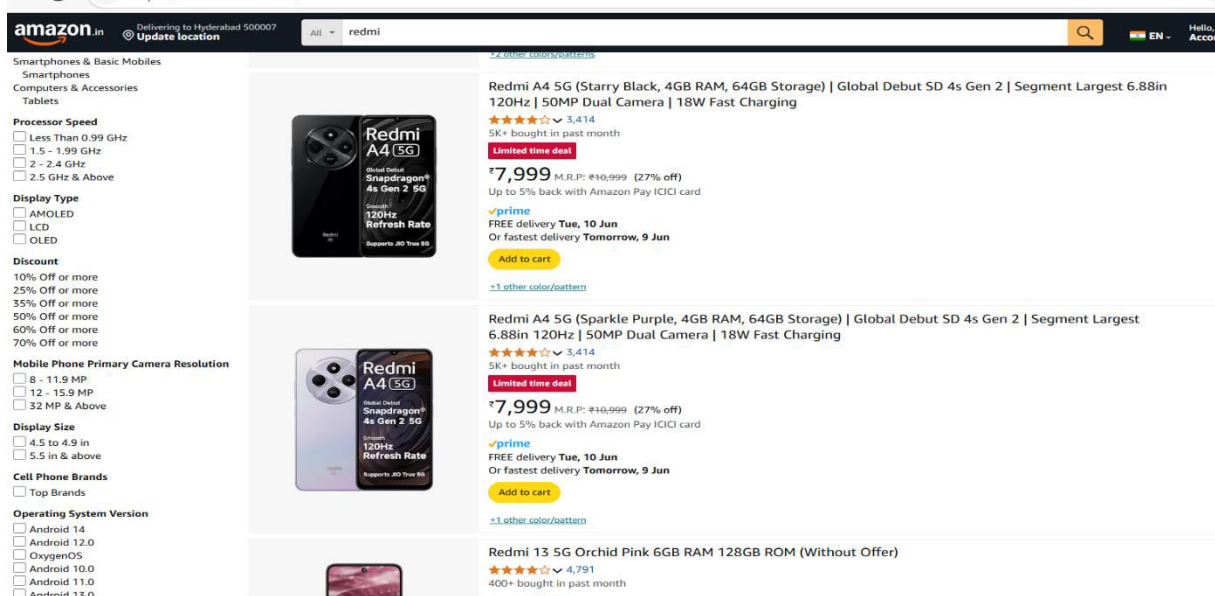


Fig.8 Output & Products with Price Comparison

## V. CONCLUSION

The **Wish List Products Price Comparison Website** is a user-centric solution designed to streamline online shopping by focusing on personalized product tracking. Unlike traditional price comparison tools that show prices for a broad range of products, this system targets only the items users specifically intend to purchase. By allowing users to create a wish list and automatically tracking prices across multiple e-commerce platforms, the website saves users the hassle of repeatedly searching different websites for the best deals. Features such as real-time price updates, email or SMS alerts, and a clean, responsive user interface make the experience more convenient and efficient, particularly for frequent online shoppers who value both time and savings.

From a technical perspective, the project leverages modern web technologies and powerful libraries such as Flask/Django, BeautifulSoup, Scrapy, and Selenium to ensure accurate data extraction and smooth backend processing. The integration of user authentication, web crawling, and alert mechanisms forms a reliable and scalable system. Moreover, the project contributes to smarter shopping behavior by enabling consumers to make informed purchase decisions based on price trends. In conclusion, the application not only simplifies e-commerce navigation but also highlights the practical impact of automation and real-time data in enhancing user experience and promoting financial efficiency in digital shopping.

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