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Price Comparison Website for Online Shopping

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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. Price Compare is a dynamic price comparison online shopping site developed using the Flask framework, aimed at providing users with a seamless and efficient platform for comparing prices across a wide range of products. With the rapid growth of e-commerce, consumers face the challenge of finding the best deals amidst countless online retailers. Price Compare addresses this issue by offering a user-friendly interface and powerful functionality, allowing users to easily search and compare prices, ultimately saving time and money.*

Keywords: Price comparison, Flask, e- commerce, dynamic, framework

I. INTRODUCTION

In the current era of online business, ecommerce has become a huge market for the people to buy goods online. Increasing use of smart devices and other mediums has paved the way for users to buy products almost from anywhere. This has increased involvement of online buyers evolving e- commerce business. These large numbers of ecommerce websites put users in turmoil to search and choose to buy a single product from multiple ecommerce websites. The proposed solution helps online users to grab best deal for their product from multiple ecommerce websites on single web interface. This will in turn save users time, money, and efforts to find the same product prices on different ecommerce websites. Proposed system uses web scraping technique to extract data from ecommerce web pages and web crawler to links for products.

This system uses the following technologies:

Web Crawler:

The system deals with price comparison engine. The first thing required are to gather large amount of data from different ecommerce websites. It is not possible to manually collect the data from websites. Hence the best way is to create a web crawler that will navigate to these e- commerce websites. The fetched URLs are sent to scrapper for scrapping process.

Web Scrapper:

Web Scrapping is used to extract HTML data from URL's and use it for personal purpose. As this is price comparison website, data is scrapped from multiple e- commerce websites. In this system, Scrapping is done using python libraries like requests and beautifulsoup4. Beautifulsoup4 is a python library which is used for parsing html pages. Using these, product information from different e- commerce sites is scrapped.

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II. SYSTEM REQUIREMENT

SOFTWARE REQUIREMENT

Pycharm IDE:

Using PyCharm as your IDE (Integrated Development Environment) can greatly enhance your development experience when working on a Python project like a price comparison site. PyCharm offers various features that facilitate coding, debugging, and project management.

Python:

Python is a popular programming language known for its simplicity, readability, and versatility. It has a wide range of applications, including web development, data analysis, machine learning, artificial intelligence, scripting, and more.

Flask:

Flask is a lightweight and flexible web framework that allows developers to build web applications quickly and efficiently. It provides the basic tools and features needed for web development, such as routing, templating, and database integration. Flask is known for its simplicity and minimalistic design, making it a popular choice for small to medium-sized projects.

Beautiful Soup4:

BeautifulSoup4 (bs4) is a powerful Python library used for web scraping and parsing HTML or XML documents. It is particularly useful for extracting data from websites, which makes it valuable for building a price comparison site.

Requests:

The requests library in Python is commonly used for making HTTP requests to fetch data from web pages, APIs, and other web resources. In the context of a price comparison site, you can use the requests library to retrieve data from different websites, extract the relevant information, and perform comparisons.

HTML and CSS for frontend:

HTML (Hypertext Markup Language) and CSS (Cascading Style Sheets) are fundamental technologies used for creating and styling web pages. HTML provides the structure and content of a webpage, while CSS is used to control the presentation and layout.

III. IMPLEMENTATION

Working of the proposed system is as follows: The backend system consists of two important techniques web crawling and web scrapping. Web scrapping is a technique that is used to extract information in the human readable format and display it on destination terminal. But before scrapping the output, Web Crawlers are responsible to navigate to the destination once the crawler reaches the correct page and matches up with the products, scrapping process starts. Web scrapping essentially consists of two tasks: first is to load the desired web page and second is to parse HTML information of the page to locate intended information. In this system Scrapping is done using python as it provides rich set of libraries to address these tasks. “requests” is used to load the URLs and “Beautiful soup” library is used to parse the web page. After scrapping the products information from different e- commerce websites, the data is displayed on the website. The website is designed using flask web framework which is written in python. Required results are retrieved and displayed on Main website. The client can then compare prices of products that are available on e-commerce websites.

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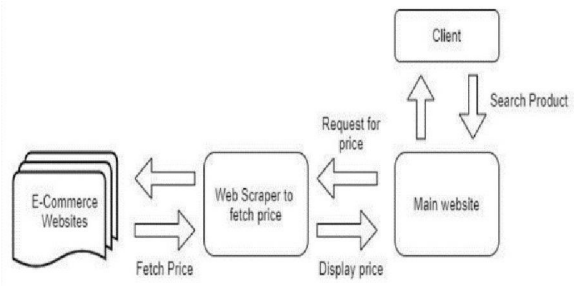

Fig 3.1: System Architecture

IV. RESULT

Search product

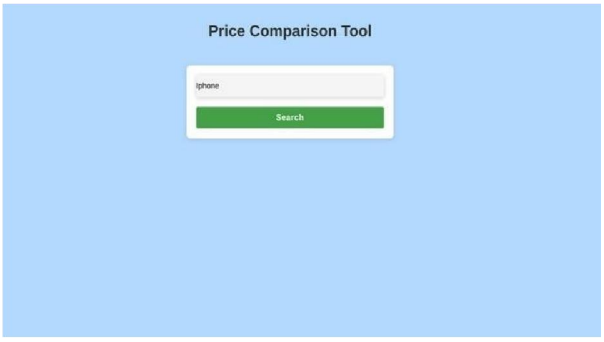

Figure 4.1: Search product

Live product price comparison

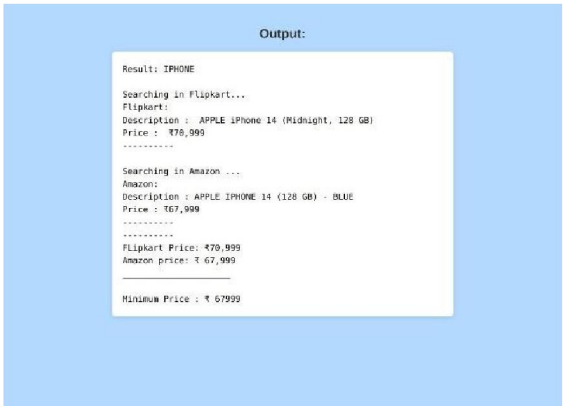

Figure 4.2: Live product price comparison

V. CONCLUSION

With this price comparison website, it solves the problems of the working people to check on the price before buying products. This website will facilitate users to analyze prices that are present on different e-commerce shopping websites so that they get to know the cheapest price of product with best deal. This will surely save buyers efforts and valuable time. Ultimately, this will bring together strategies, best offers and deals from all leading online stores and will help buyers to shop online.

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REFERENCES

[1]. Khamisah Binti Buaimin, Price Comparison Website, Information Technology Programme Universiti Teknologi PETRONAS, SEPT 2012.

[2]. S. Rajendar, K. Manikanta, M. Mahendar, Assistant Prof. (Mrs.) K. Madhavi, Department of Computer Science and Engineering, St. Peter's Engineering College, Hyderabad, 6 June 2021.

[3]. Akash Kumar, Sanyam Saklecha, Shreyas Pawar, Vaibhav Kumar, Prof. N.A. Mhetre, International Research Journal of Engineering and Technology (IRJET), 5 May 2021.

[4]. Prashant Sanap, Swati Shinde, Anjali Mahajan, Rahul Vishe, Anuprita Gawande, International Research Journal of Modernization in Engineering Technology and Science, 4 April 2022.

[5]. The use of web scraping in computer parts and assembly price comparison LR Julian, F Natalia - 2015 3rd International Conference on …, 2015 - ieeexplore.ieee.org

[6]. An overview on web scraping techniques and tools AV Saurkar, KG Pathare, SA Gode - International Journal on Future …, 2018 - ijfrcsce.org

[7]. Web and android application for comparison of e-commerce products A Ambre, P Gaikwad, K Pawar, V Patil - no, 2019 - academia.edu

[8]. E-Commerce Web-Crawling to Facilitate Consumers for Economical Choices S Saeed, M Naqvi, M Memon - International Journal of …, 2020 - journal.scientiaca.org

[9]. Shridevi Swami , Pujashree Vidap ," Web Scraping Framework based on Combining Tag and Value Similarity" Proceedings of the IJCSI International Journal of Computer Science Issues, Vol. 10, Issue 6, No 2, November 2013.

[10]. Dr. Rajendra Nath ,Khyati Chopra," Web Crawlers: Taxonomy, Issues & Challenges" Proceedings of the International Journal of Advanced Research in Computer Science and Software Engineering , Volume 3, Issue 4, April 2013, pp. 944-948.