

Widget To Compare Price Using Mashup

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Abstract: Today the same product is available on multiple websites. User may not be aware of all the websites where the products are available. User also needs to visit each website individually to check the availability of the product and its price on different websites. If the customer does not check all the websites they may lose the price benefit and end up buying the product at a higher price. To avoid this, the application to be developed will provide a widget which will compare price of the same product from different websites and give him the price comparison of all the websites that have been selected by the user previously. To compare the prices Mash-up Technology will be used with the help of APIs to get data from different websites.

Keywords: e-Commerce, GUI, Fuzzy logic.

I. INTRODUCTION

A comparison shopping website, sometimes called a price comparison website, Price Analysis tool, comparison shopping agent, shop-bot or comparison shopping engine, is a vertical search engine that shoppers use to filter and compare products based on price, features, reviews and other criteria. Most comparison shopping sites aggregate product listings from many different retailers but do not directly sell products themselves, instead earning money from affiliate marketing agreements. In the United Kingdom, these services made between 780m and 950m in revenue in 2005. Hence, E-commerce accounted for an 18.2 percent share of total business turnover in the United Kingdom in 2012. Online sales already account for 13% of total business turnover. Comparison shopping agents included not only price comparison but also rating and review services for online vendors and products.

Today, websites like Epinion.com provide review and rating services for products. Altogether, there were three broad categories of comparison shopping services. Price comparison sites can collect data directly from merchants. Retailers who want to list their products on the website then supply their own lists of products and prices, and these are matched against the original database. This is done by a mixture of information extraction, fuzzy logic and human labor. Comparison sites can also collect data through a data feed file. Merchants provide information electronically in a set format.

A software widget is a relatively simple and easy to-use software application or component made for one or more different software platforms. A desk accessory or applet is an example of a simple, stand-alone user interface, in contrast with a more complex application such as a spreadsheet or word processor. These widgets are typical examples of transient and auxiliary applications that don't monopolize the user's attention. On the other hand, graphical control elements (GUI "widgets") are examples of reusable modular components that are used together to build a more complex application, allowing programmers to build user interfaces by combining simple, smaller parts

A. *Aim and Objective*

1. To build an integrated widget overlay that will provide a comparison of the same product on multiple websites.
2. To reduce their efforts by providing a widget regardless of on what website they are currently viewing the product.

B. *Problem Statement*

All the conventional Price Comparison websites have their own web application which provides price comparison among different e-commerce websites for a particular product. If the customer does not check all the websites they may lose the price benefit and end up buying the product at a higher price

C. *Scope*

To avoid losing the least price benefit, the application to be developed will provide a widget which will compare price of the same product from different websites and give him the price comparison of all the websites that have been selected by the user previously. This will be done by using a widget overlay on an application that will further reduce the user efforts and improve the overall user experience.

This android application widget can also be used for further implications by collaborating with multiple e-commerce organizations and provide them effective customer base and generate revenue.



II. LITERATURE SURVEY

Before actually starting with the work we went through various research papers. These included research papers on comparison between various algorithms that can be used, different components that can be used and various implementation details about automation of devices.

Following are some of the reference papers that we studied during literature survey. Table 1 shows the features and implementation details of studied published papers.

Table 1: Inferences from Literature Surveyed

Sr. no	Title of research paper	Summary
[1]	Introduction to E-Business management and strategy. Colin Combe First Edition 2006	Using these papers, we came to know about the main themes to provide a complete picture of the key elements relevant to an introductory text in e-business like: Integrates business, management, strategic management, technology, marketing and economics within the context of e- business provides practical insight by including a selection of in depth case studies on high profile companies, such as Amazon.com, eBay and Google
[2]	Developing an Ecommerce website. (Published in: Microelectronics, Computing and Communications (MicroCom), 2016 International Conference.)	This paper outlines different aspects of developing an e-commerce website and the optimum solution to the challenges involved in developing one. It consists of the planning process, which starts with determining the use case, domain modeling and architectural pattern of the web application.
[3]	Understanding consumer acceptance of mobile payment services: An empirical analysis	In these papers we came to know about different business development skills and backend development depending on the exposure and availability of the website Also it adds points like e commerce consultancy techniques and professional strategies to tackle problems regarding permissions of higher authorities
[4]	Automation, Optimization, Security, Information, software and placement	Fast registration, Reduce manual works
[5]	Automation, Resume uploading, Internships	Fast registration, Reduce manual works
[6]	Automation, Resume generation, Notifications via email and messages	Data dictionary, Fast registration
[7]	Automation, Resume uploading, Notification	Fast Registration, Reduce manual works, Involvement of staffs
[8]	Notification, Resume uploading, Internships	Fast registration, Less time of retrieving data

III. PROPOSED SYSTEM

The proposed system will work as given in the block diagram below. This diagram gives the entire flow of the process the application is supposed to be working.

The proposed system was adopted by a careful process that included of three main steps.

Survey: A survey was carried out of about 30 people, to gain answer to 3 key questions.

1. How much percentage of consumers preferred online shopping over the traditional shopping methods?
2. How many consumers compare the prices of the product they are interested in over different websites?
3. How many consumers always shop from the preferred online store?



Conceptualization: Based on the data obtained from above survey we decided to make a platform for price comparison as many consumers practice that. Here we had to choose between two methods.

1. A separate shopping website to compare prices.
2. A shopping widget overlay that will be floating on any website to provide price comparison.

Implementation: As there are already a lot of e-commerce price comparison application websites, we decided to enhance the user experience by providing a widget overlay on any shopping website or application that will reduce the efforts of a user to log into a separate application.

IV. METHODOLOGY



Fig. Methodology.

ON-CLICK INPUT DETECT:

When the user enters the product page of the desired product, the widget should use image recognition to select the name of the desired product and use it as the query for the price comparison engine.

PASS INFO TO WEB CRAWLER:

When the name of the product is detected by the widget it is passed to the searching algorithm and then we get the results back.

FETCH DATA FROM SITES:

The price comparison engine uses the name of the detected product as the query and using the algorithm fetches the data from different online e-commerce websites for the same product.

COLLECT AND PROCESS RESULT:

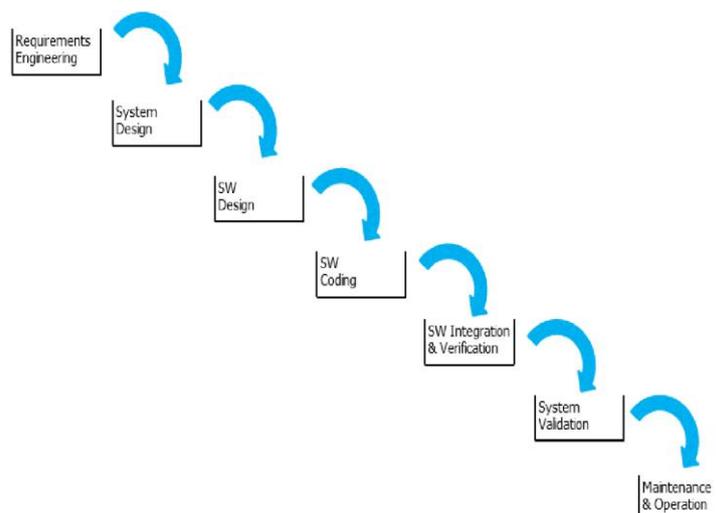
The result fetched from different websites is the processed to get a finished result that can be then used to be displayed to the user.

DISPLAY THE FINAL OUTPUT:

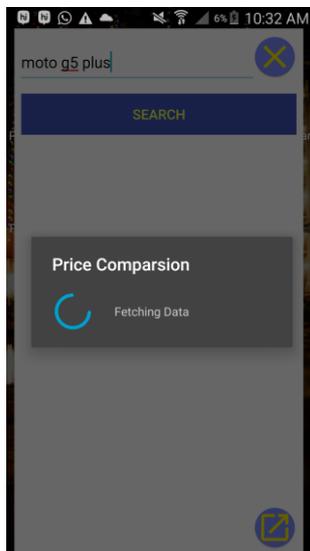
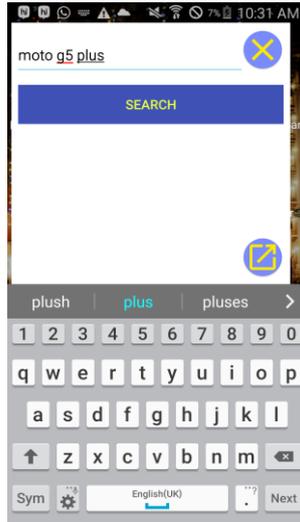
The output fetched and processed is the listed along with similar results in the widget itself for the end user.

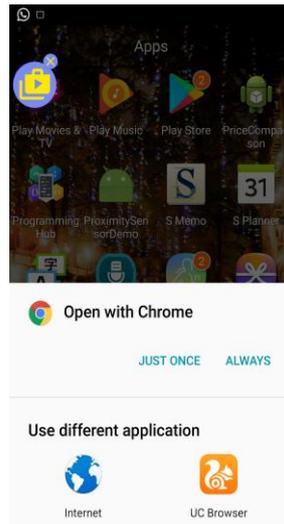
V. ANALYSIS

Process Model



VI. WORKING OUTPUT





CONCLUSION

Hence, thereby we conclude that the proposed system removes all the drawbacks of existing system and enhanced with the reduced human efforts that were required while comparing different products online. We implement a android application widget for comparing price of products on different websites. This will help the user to find price of product on number of websites. Reducing the overall time required to compare prices of a product on multiple websites. User can easily find prices on multiple shopping websites in one click.

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