

## Android based Maximum Discount Finder

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**Abstract**— Nowadays online shopping is rising day by day. We have thirty plus e-commerce website for online shopping. It is very easy to buy a product online, it save our time to go to market and buy it. Finding discount on various product on e-commerce website are getting quite complicated .because when we search for discount on particular product that time we just refer only two or four website which are used previously or suggested by other. But we don't know the other e-commerce website which is also give better discount on product. So we are developing android application for finding discount on various e-commerce websites. It helps user to get maximum discount on the product. This application includes some features such as we can search any product by name or category. Then it show best of discount on that product available and also provides the link of respective website. On simply clicking on that link, application fetches that link to the user. So user can directly check specification of the product and buy that product. We have just made it easier for user to find discount.

**Keywords**—*e-commerce, android, application, discount.*

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### I. INTRODUCTION

Purchasing and selling products and services over the internet without the need of going physically to the market is what online shopping all about. Online shopping is rising day by day. Because computer user's are increasing day by day so as the online shopping trends are also increasing .It is a fact that discounts offered online are far more attractive than the physical stores. More people are attracted towards discounts. It is hard and annoying for user to search discounts on every website for a particular product to get maximum possible discount and even user don't know more e-commerce websites. This application possesses the discount level that users are looking for and then opens up the results in mobile application. With the Discount Finder user can search by the discount the user wants on the shopping website. This feature is not normally available on the e-commerce website so it is being built into this Application. Now shop smarter using this application. Normally when we are going for shopping in market places, we try to bargaining on prices and purchase in suitable amount. We can say that this app actually bargaining product and best result show it to user. So we don't need to check each and every website for discount. We are making android application because mobile phone usage is increasing dramatically over the last few decades. Google launched Android, an open source software platform for mobile devices. Today everyone have a mobile, so anyone can use this application.

### II. TECHNOLOGIES USED

This application is build using crawler, parser and various android environment (eclipse IDE, Android SDK, Android debug bridge (ADB), Android virtual device manager (AVD)).

#### A. *PHPCrawler*

With the advent of internet technology, data has exploded to a considerable amount. Large volumes of data can be explored easily through search engines, to extract valuable information. Here We are going to use a web crawler in php . PHP-Crawler is an open source crawling script based on PHP. A crawler is a program that visits Web sites and reads their pages and collects relevant information. It is an automated script which browses the World Wide Web in a methodical, automated manner. This application uses spidering as a means of providing up-to-date information about discounts.

#### B. *Simple HTML DOM parser*

The Document Object Model (DOM) is a cross-platform and language-independent convention for representing and interacting with objects in HTML, XHTML, and XML documents. The nodes of every document are organized in a tree structure, called the DOM tree. Objects in the DOM tree may be addressed and manipulated by using methods on the objects. The public interface of a DOM is specified in its application programming interface (API). Because DOM

supports navigation in any direction (e.g., parent and previous sibling) and allows for arbitrary modifications.

C. MySQL

MySQL is the world's second most widely used relational database management system (RDBMS) and most widely used open-source RDBMS. It is named after co-founder Michael Widenius's daughter, My. The SQL acronym stands for Structured Query Language. The MySQL development project has made its source code available under the terms of the GNU ( General Public License), as well as under a variety of proprietary agreements. MySQL is a popular choice of database for use in web applications. Free-software-open source projects that require a full-featured database management system often use MySQL

D. Android

Android's source code is released by Google under open source licenses. Android is a mobile operating system (OS) based on the Linux kernel and currently developed by Google. With a user interface based on direct manipulation, Android is designed primarily for touchscreen mobile devices such as smartphones and tablet computers, As of July 2013, the Google Play store has had over one million Android applications ("apps") published, and over 50 billion applications downloaded. A developer survey conducted in April–May 2013 found that 71% of mobile developers develop for Android.

information in-cluding product name, product image, Selling price, original price, discount.

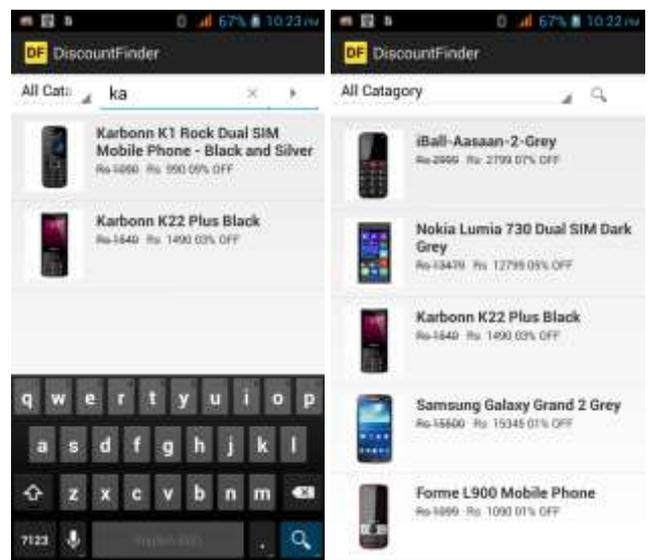


This information is then stored in databases used which is MySQL. MySQL itself is used to sort the products by discount and it also provides a way to avoid repeated data inserting into database by making url as primary key.

id	url	title	category	price	discount	image
1	http://www.10000.com/...	...	...	...	...	...
2	http://www.10000.com/...	...	...	...	...	...
3	http://www.10000.com/...	...	...	...	...	...
4	http://www.10000.com/...	...	...	...	...	...
5	http://www.10000.com/...	...	...	...	...	...
6	http://www.10000.com/...	...	...	...	...	...
7	http://www.10000.com/...	...	...	...	...	...
8	http://www.10000.com/...	...	...	...	...	...
9	http://www.10000.com/...	...	...	...	...	...
10	http://www.10000.com/...	...	...	...	...	...

After receiving complete data, rss (Rich Site Summary) feed file is generated in php and uploaded on dropbox. DropBox provides a facility to upload your files online and can access from anywhere in the world by any device. Android application is used to access this rss feed file from DropBox. Since DropBox is always online even if MySQL server is not online user can still access the content. Again DOM parse in java is used in android to parse data from rss feed and display it to the intended user.

Android application has category and search function which helps user to find best of discounts on products.



III. SYSTEM DESIGN AND IMPLEMENTATION

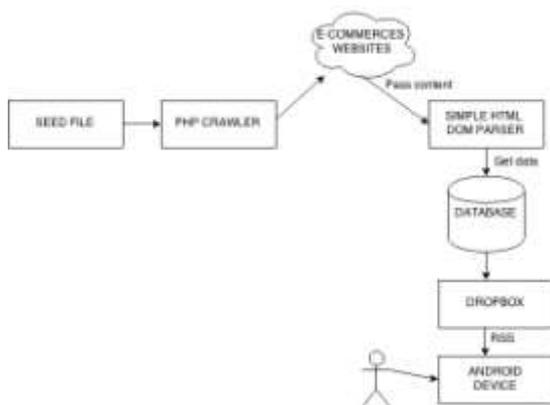


Figure 1. System Design

As shown in figure 1, crawler starts with getting its seed url from seed file. This file contains urls of various e-commerce websites. Crawler visits each url and collect the contents from web and pass it to crop function. This function trims the web page and selects only the required content and pass it to simple HTML DOM parser. This crop enhances the performance by reducing processing of irrelevant data. DOM Parser creates a DOM tree of received content and extracts the required

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#### IV. FUTURE SCOPE

Currently crawler cannot crawl dynamically generated pages, Our approach will be to design a mechanism to crawl those pages. Now we have crawled three e-commerce websites, in future we will try to crawl maximum possible websites. We will try to add functionality that will help user to compare prices of same product on different websites.

#### V. CONCLUSION

Using Crawler we have learned to crawl e-commerce websites and collect required information, process this information, convert it to usable form, store in mysql database and finally provide this information to user with a user friendly and portable interface.

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