Android Application that Suggests Scholarships to Users

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ABSTRACT: Nowadays we could see private institutions are providing scholarships policies for a few poor and minority students, who cannot afford money for their further education and also for few merit students. To apply for the scholarship they are facing many problems by posting their all certificates to respective offices. So to overcome such problems we are designing an application called “Discover Scholarship”. In this users can apply for different scholarship sites which are categorized accordingly. Our goal is to make an application through which eligible persons should get benefitted from the scholarship policy. Discover scholarships is an application for eligible students, who want to apply for the scholarship online.

KEYWORDS: Web crawler, Chatbot, Android.

I. INTRODUCTION

The project “Discover Scholarships” is an android app that suggests scholarships to users. Though media systems are very popular, the majority of students are not aware of various scholarships applicable to them. To have a general awareness it will be more convenient if all the scholarship details are available in one particular app. At the time of registration, the data is entered by the students with regards to the student’s parent’s income, caste, merit, etc. concerned with scholarships. By this, they will get a list of scholarships to which they are eligible and further can apply easily. The crawler in this project crawls the websites, extracts and loads information into the database. From this, the app suggests eligible scholarships to the students. This application also has a chatbot, where the user can clarify their doubts.

II. RELATED WORK

The World Wide Web (or simply the web) is a massive, wealthy, preferable, effortlessly available, and appropriate source of information and its users are increasing very swiftly now a day. The size of the web is very wide and contains structured, semi-structured, and unstructured data. Most of the data present on the web are not managed so it is not possible to access the whole web at once in a single attempt, so search engines use a web crawler. It is a program that navigates the web and downloads the references of the web pages. The search engine runs several instances of the crawlers on widespread servers to get diversified information from them. The web crawler crawls from one page to another in the World Wide Web, fetch the web page, load the content of the page to search engine’s database and index it. An index is a huge database of words and text that occurs on a different web page. The World Wide Web is a huge repository of millions of web pages and data related to dissimilar topics. It has no centrally organized content arrangement. Hence searching data related to a specific topic is not an easy task. With such challenging tasks, the role of web crawler becomes more important and its design issues must be taken into consideration to produce more effective results [1].

Web crawlers are known to us since the birth of the internet in 1990, as the web pages are interconnected among themselves and form a unique path along which the crawler travels to fetch the information requested by the user/author. But the traditional crawlers are not able to distinguish between the relevant and the partially relevant web pages. Due to this, the crawler had to fetch a huge amount of data from the web even if the web was not fully relevant to the user. This resulted in the formation of the crawlers that were committed to the single topic given by the user. These crawlers were known as focused crawlers. These focused crawlers do not crawl the whole web as opposed to the traditional crawlers, as they only crawl the specific part of the web that is related to the given topic. This paper...
summarizes the different qualities of various focused crawlers at present. Social Semantic Focused Crawlers takes advantage of the social networking sites to obtain the web pages that are contextually related to the given topic, and usually, the pages are shared by the people that have some interest in some topic related to the queried topic. With the introduction of focused crawling the overall process of crawling has been significantly improved as they are more efficient than traditional crawlers [2].

With the rapid growth of network information, the Internet has become the greatest information base. How to get the knowledge of interest from massive information has become a hot topic in current research. But the first important task of those researches is to collect relevant information from the Internet, namely, crawling web pages. Therefore, to crawl web pages effectively, researchers proposed web crawlers. Web crawlers are programs that collect information from the Internet. In this paper, they presented a novel focused crawler that increases the collection performance by using the web page classifier and the link priority evaluation algorithm [3].

An effective strategy for finding data from the profound web. Solid Crawler is an associated with crawler includes two phases: site finding and adjusted in site looking into. In the first stage, Crawler will examine similarly for known significant destinations i.e. site finding. Solid Crawler accomplishes more right outcomes by arranging gathered goals and concentrating the creeping on a given point [4].

The large size and the dynamic nature of the Web make it necessary to continually maintain Web-based information retrieval systems. Crawlers facilitate this process by following hyperlinks in Web pages to automatically download new and updated Web pages. While some systems rely on crawlers that exhaustively crawl the Web, others incorporate “focus” within their crawlers to harvest application or topic-specific collections. In this chapter, we discuss the basic issues related to developing an infrastructure for crawlers. This is followed by a review of several topical crawling algorithms, and evaluation metrics that may be used to judge their performance. Given that many innovative applications of Web crawling are still being invented, we briefly discuss some that have already been developed [5].

A chatbot is a conversational agent where a computer program is designed to simulate an intelligent conversation. It can take user input in many formats like text, voice, sentiments, etc. For this purpose, many open source platforms are available. Artificial Intelligence Markup Language (AIML) is derived from Extensible Markup Language (XML) which is used to build up a conversational agent (chatbot) artificially [6].

## III. METHODOLOGY

A new user has to initially register to this application, by filling in details like name, email id, password, gender. If the user has already registered, then the user can directly log in to the application.

![Architectural Design](image.png)

**Figure 1 : Architectural Design**

Figure 1 shows the architectural design of the application. The following are the functionalities of the application.

1) Users can register and log in with a username and password.
2) After successful login, the user will be directed to the home page. The home page consists of a list of scholarships to which the user is eligible, profile, and chatbot.
3) From the list of scholarships suggested by the application, clicking apply button, directs the user to a particular website of the scholarship where the user can apply to a scholarship.
4) User can update their profile by clicking the profile button.
5) Chatbot answers some of the questions of the users.

In this application, web crawler extracts the data from particular websites and return the list in Json array format. This makes admin easy to extract huge data.

IV. EXPERIMENTAL RESULTS

![Figure 2: User registration page](image1)
![Figure 3: Reset password page](image2)
![Figure 4: User login page](image3)
![Figure 5: Admin login page](image4)
Figure 6: Email ID Authentication

Figure 7: User details

Figure 8: List of scholarships displayed to users

Figure 9: Category selection
In today’s world, education has become one of the most essential and expensive assets. Most high school pass outs look for financial assistance to pursue the career of their dreams that requires several years of education. In such a scenario, scholarships come up as the most desired form of financial aid. This is because, unlike educational loans, users don’t have to repay scholarships. If they are deserving, they can get scholarships on a merit basis. This makes scholarships prestigious and also pays for their degree. Discover Scholarships differently helps users to get scholarships from different organizations. If students use Discover Scholarships in the future, they will get more benefits in which instead of relying on manual searching this app provides easy access to search the scholarships based on eligibility criteria, users will get notifications for new scholarships update and users can update the profile. The project has a very vast scope in the future. We can implement the tracking of scholarship applications users have applied. In the proposed system, only the English language is used as communication. As further extensions, this application can be extended to multi-languages.

REFERENCES

2. Mohd. Aamir Khan Department of C.E.A., G.L.A. University, Mathura, India Dilip Kumar Sharma Department of C.E.A., G.L.A. University, Mathura, India
3. Houqing Lu,1 Donghui Zhan,1 Lei Zhou,2 and Dengchao He 31 College of Field Engineering, The PLA University of Science and Technology, Nanjing 210007, China
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