Web Crawler: Survey

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Abstract— A Web crawler starts with a URLs to visit, called the seeds. As the crawler visits these URLs, it identifies all the hyperlinks in the page and adds them to the list of URLs to visit, called the crawl list. URLs from the frontier are recursively visited according to a set of policies. If the crawler is performing archiving of websites it copies and saves the information as it goes. Such archives are usually stored such that they can be viewed, read and navigated as they were on the live web.

Keywords: Web Crawler

I. Introduction

The aim of our project is to design a Search Engine for searching and indexing specific web pages on the Internet. Web crawler project is a project in which search engine searches only the text and images to support the user. It then proceeds to be applicable for the search of any kind of web pages. The general purpose of this project is to help the user to search relevant site complete for the keyword. After the search is done user can also view the history of the search done. User can also send the report generated by the web crawler to his registered mail id. User should also have the facilitate to download of the images.

In this project, students implement a focused Web crawler as a way of learning about different search algorithms. This is a program that starts at a given Web page and searches outward from this page, looking for other pages that meet a user's needs or match a search query.

A crawler is a program that retrieves and stores pages from the Web, commonly for a Web search engine. A crawler often has to download hundreds of millions of pages in a short period of time and has to constantly monitor and refresh the downloaded pages. In addition, the crawler should avoid putting too much pressure on the visited Web sites and the crawler's local network, because they are intrinsically shared resources.

II. Literature Survey

Due to the popularity of search engines on the web the role of web crawlers has become all the more critical in order to facilitate accurate and relevant results. A significant amount of research has thus been done in this area. This research mainly centers on the design of web crawlers as well as the implementation of their use. One of the pioneering studies in this area was the work of Lawrence Page and Sergey Brin in the initial stages of the design of the Google search engine. They stated that "running a crawler which connects to more than half a million servers, and generates tens of millions of log entries generates a fair amount of email and phone calls". This is because their web crawler focused on computational power and relied on the robots exclusion protocol to determine which sites to crawl. They also state that some people "do not know about the robots exclusion protocol, and think their page should be protected from indexing".

The existence of the robots exclusion protocol does not translate to its use by all web sites. As such, an approach that is sensitive to web server performance and band width scarcity is needed to protect those ignorant of the robots exclusion protocol. Eichmann has recommended the following general advice, "the pace and frequency of information acquisition should be appropriate for the capacity of the server and the network connections lying between the agent and that server". Mike Thelwall also encourages web crawler designers to look beyond legal implications and consider ethical issues. This has motivated the current study to find a solution that facilitates this ethic. The concept of the application of sampling to web pages has been considered before, albeit to web archiving. Jared Lyle proposed using purposive, systematic and random sampling methodologies in Web archiving. His research tested sampling as a viable means of appraising electronic records, for a lasting and useful present and future.

consumption and waste generation and as a result policy makers encourage recycling and reuse to reduce raw material demand and reduce the amount of waste going into landfills for. In [3], in this paper it is proposed that the integrated system combined with radio frequency identification, global position system, general packet radio service, geographic information system and integrated system of webcam will solve the solid waste problem. They also analyzed the actual performance of the system. [6] states that the major challenge in urban areas around the world is the management of solid waste. In that system, an integer is introduced A unified system combines Radio Frequency Identification (RFID), Global Position System (GPS), General Packet Radio Services (GPRS), Geographic Information System (GIS) and Web Camera. The RFID reader is built into the truck and will automatically receive all types of customer information and bin information from the RFID tag mounted in each bin. GPS is used to inform the location of the collection truck.

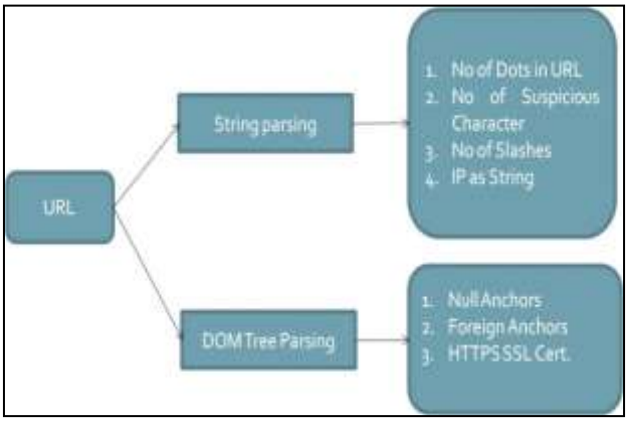
III. Materials & methods

The URL is provided as the input to the system and system needs to apply some methods to fetch the features from that URL. Feature includes Visual and Textual features.

The Feature extraction process will involve two measure algorithms to extract the features from the URL which are String Searching Algorithm and DOM Tree Parsing Algorithm.

String Searching Algorithm will be used to determine the textual features of the website URL. DOM Tree Parser will be used to parse the HTML source code of Web-Page and extract required features from the DOM Tree.

IV. Architecture



V. Conclusion

In this project, we evaluated two phishing detection a system mechanisms out of which one is dependent on URL features of web-sites and second is based on HTML tags and Visual Features of web-sites. We have created a system which is a trail of combination of these two systems and using base techniques given by them.

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