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Private Search Engine Using Searx

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ABSTRACT: A private search engine is a tool designed to provide users with a safe and anonymous browsing experience, where users' search queries are kept private and not tracked by third-party advertisers. The main goal of Private Search Engine is to provide a more secure and private browsing experience, protect user privacy and prevent unwanted surveillance. This is achieved by using advanced encryption techniques and by not storing user search data. By using Private Search Engine, users can be confident that their searches are safe and private, and browse the Internet with peace of mind.

KEYWORDS: Private Search Engine, Searx, Meta Search Engine.

I. INTRODUCTION

A private search engine is a search engine that offers users greater privacy and security than traditional search engines. A popular open source private search engine is Searx.It is a metasearch engine that pulls search results from multiple search engines and combines them to provide more comprehensive results. It also has a unique feature that allows users to choose which search engines to use and which to exclude, ensuring a more personalized search experience.

To use Searx as a private search engine, you can host it on your own server or use one of the many public instances available.Hosting Searx on your own server gives you an added privacy advantage as you have full control over what data is collected and processed.

There are several advantages to using Searx as a private search engine. First, it doesn't track your search history or collect any personal information, which improves privacy and security. Second, it allows users to search multiple search engines at once, resulting in more comprehensive results. Lastly, it's an open-source platform, which means anyone can look at the code and make sure there are no backdoors or security holes.

II. LITERATUREREVIEW

One Private search engines have grown in popularity in recent years as users become more concerned about their online privacy. Searx is a popular open-source private search engine that allows users to search multiple search engines simultaneously while protecting their privacy.In a study conducted by the University of Valencia, researchers evaluated the privacy features of Searx and found it to be effective in protecting user privacy. The study found that Searx does not collect any user data or search history, and it encrypts all communications between users and the search engine.

Another study conducted by the University of Sheffield evaluated Searx's performance against other private search engines.The study found that Searx produced better search results than other private search engines, likely due to its unique feature allowing users to customize which search engine to use.

In a third study conducted at the University of Zurich, researchers assessed the privacy implications of using a public instance of Searx versus hosting it on a private server. The study found that hosting Searx on a private server provided better privacy benefits because users had full control over what data was collected and processed.

Overall, these studies show that Searx is an efficient and secure private search engine that offers users better privacy and security than traditional search engines. However, it is important to note that while Searx protects the privacy of its users, it may not provide complete anonymity.Users should also be aware that while Searx does not collect user data, the search engines it uses may collect data.

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III. METHODOLOGY

In today's digital age, online privacy has become a major concern for many. There is a growing demand for private search engines that do not track user data or display personalized ads. Therefore, we decided to develop a private search engine using the open source meta search engine Searx.Searx is a privacy-friendly search engine that aggregates results from multiple search engines without tracking user data. Our app uses the power of Searx to provide users with a secure and private search experience.Our app's backend uses Searx's API to retrieve search results and display them to the user.

To improve the user experience, we've added voice recognition, allowing users to search using their voice. We have also integrated a text-to-speech module with flutter_tts which allows the user to read search results aloud.Overall, our private search engine powered by Searx provides users with a fast, secure and private search experience without compromising their online privacy.

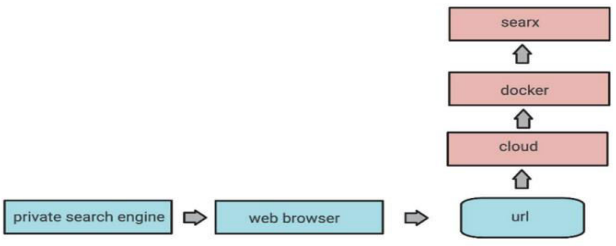
IV. RESULT AND DISCUSSION

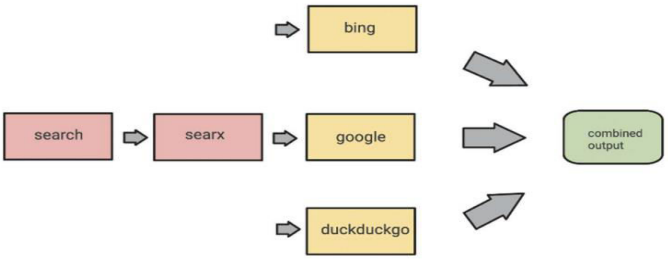
The purpose of using a private search engine on our own instance like Searx is to protect user privacy when searching for content on the Internet. Traditional search engines such as Google, Bing and Yahoo track users' search histories and collect personal information to deliver targeted advertisements and improve their services. This could compromise user privacy, and some users may be uncomfortable with the amount of data collected about them.

By using a private search engine like Searx, users can search for content on the Internet without risking their search history or personal information being tracked or spied on. Searx aggregates search results from multiple search engines and presents them in a unified interface, ensuring a more diverse search experience.

Additionally, Searx allows users to adjust their search parameters, including filtering out explicit content or removing specific search engines from search results.

V. SIMULATION RESULTS





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VI. Conclusion and Future Work

By using a private search engine like Searx, users can avoid being tracked by search engines and advertisers, who can use their search history to serve them personalized ads. Additionally, Searx allows users to choose which search engine they want to use, providing a more personalized and diverse search experience.With growing concerns about online privacy and more people realizing the importance of protecting their personal information, the future of private search engines looks bright.

Overall, the future of private search engines is bright, with potential for growth and development in several areas. With the growing need for online privacy and security, private search engines are likely to play an increasingly important role in providing users with a safe and private online search experience.

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