

## SEARCH ENGINE LOCALIZATION AND OPTIMIZATION

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### ABSTRACT

User get bulk of data whenever he/she search for a particular topic on internet which is not useful for user due to this lots of time is wasted of user. This application which will provide an optimized result for search query according to the user behaviour and his previous history. Search engine optimization is a strategical technique to take a web document in top search results of a search engine. Also, localization is a part which will provide notifications of the nearby places, along with the range filter, as per the requirement of the customer. Google is most user friendly Search Engine proved for the Indian users which gives user oriented results. In addition, most of other search engines uses Google search pattern so we have concentrated on it. So, if a page is optimized in Google it is optimized for most of the search engines. This research is based on reviewing various practices that are used to make websites search engine friendly.

**Keywords:** Search Engine Localization; Search engine Optimization; White Hat SEO; Black Hat SEO;  
Location-based Services

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### 1. INTRODUCTION

Nowadays on internet there is enormous content which made it difficult to find relevant information on a subject. Methods to retrieve such information have become particularly important. So search engine becomes an integral part of everyone's life to search information. We depend on search engines to provide us right information at right time. To satisfy needs of the user search engine must filter and find most allowable information parallel a user query and it should show that information to the user. If search engine decently criticise quality and importance of pages and gives high quality pages to the user then "Search Engine Bias" will not be a significant problem. But unfortunately, page quality is very hard to count in real life. Search engine like Yahoo or Google mainly depend on page rank to measure quality of page. Higher page rank value show website is quite popular in order to score a higher rank in search engine result many website promotion techniques are used by website designers. To promote that website in search engine result, optimizers of that search engine analyses the results and depending on that it show the result and give information about which optimization techniques of search engine are used by website.

Search engine optimization is the method of optimizing any website in such a way that a search engine ranks your website higher than millions of others competing in the same niche. Basically it is about making any website rank

higher on popular search engines like Yahoo! and Bing. This process is helpful in driving relevant and organic traffic to your website [1].

Search engine optimizers use optimization techniques which follow search engine guidelines are called white hat SEO techniques [2]. Black hat SEO techniques are used by optimizer of search engine for development of web page which does not follow the rules and policies of search engine.

Search Engine Localization is a location-based service that provides whole information about geographical regions and different places around the world and it is used to get the information about their current location and to process it to get more important information near to that location. It will work on location related and option aware favour this system. With the help of A-GPS and GPS system in a phone and through web services using GPRS, HSPA, LTE can implement on android smart phones to provide value added services. Various services provided by Search Engine Localization are as follows:

Traveling from one destination to another navigation services are used and it offers direction for drivers, walkers, and people of public transportation.

Individual track portion for a set of GPS coordinates is given by nearest road services which share up to 100 GPS points and gives the nearby road portion for each point. The points which get passed should not need to be branch of a continuous track.

Search Engine Localization will provide Automatic notification of nearby locations as reported by the geositions of the user. This app is also helpful for finding out nearby location such as hotel, petrol, pump, etc.

The organization of the paper is as follow, Section I contains the introduction of Search Engine Localization & Optimization, Section II contain the proposed system for the Search Engine Localization & Optimization, Section III contain the Methodology for the proposed Search Engine Localization & Optimization, Section IV concludes research work with future directions.

## **2. PROPOSED SYSTEM**

We are providing an application in which search engine optimization will optimize the user input query and will provide optimized result as per the user behaviour. And search engine localization will help the user to find out the nearby location such as hotels, hospitals etc. using scalable technique. Now the next is Optimization which is the key component of the project. Optimization is as per the user behaviour. As per the user requirement the search engine will rank the website or the search result on the top. Optimization will be done according to the

number of hits i.e. frequency count on a particular website. More the frequency count more above the website will go on the top of the page. Also the frequency count of the keywords are being maintained so as to recommend or suggest a particular website to a user.

The project is the combination of Optimization and Localization and overcomes the drawbacks of the earlier SEOs in the following ways:

- This project depend on the number count of an appropriate keyword which increases the ranking of a particular website briskly. Earlier it was based on the cumulative work adding to the reputation of any website hence the impact building was slower.
- This project also offers Localization as a part along with the optimization technique. This will help in building relevant traffic to a particular website as well as supporting and generating the lead in sales.

## 2.1 Problem Statement

Websites' visibility in search engine plays a major role therefore; web developers are motivated to optimize websites to obtain high ranking and visibility in search engines to increase website visibility. Dynamic websites are not considered as search engines friendly for most of prominent search engines like Yahoo and Microsoft's Bing. They are still not perfect to crawl and index dynamic webpage(s). Google and Yahoo are considered as most prevalent in searching web. Among other search engines, Google's crawler is recognized as rather precise at finding dynamic webpage(s), images, and other types of static content on the web. On the other hand, the contents of dynamic websites are stored in the databases and have no fixed addresses or URLs [4]. Therefore, Most of search engines (including Google) are either inexistent or far from perfection for searching dynamic webpage(s). This problem can be defined as: It is not yet known, that how much progress has been made by three major search engines (Google, Yahoo and Microsoft's Bing) for indexing dynamic websites? Although Google claims it has made good advancements in indexing dynamic websites and suggests not performing common known optimization techniques called URL rewriting. There is a need to know, is it possible to improve visibility of a dynamic website in Google by applying some SEO techniques to make dynamic websites search engine friendly? Also, that would SEO techniques affect visibility of dynamic website in Yahoo and Microsoft's Bing? Moreover, to what extent SEO techniques make dynamic websites search engine-friendly with regards to the three major search engines? In current scenario Google map doesn't provide range parameter for searching places.

## 2.2 Methodology

Search engine optimization is the process of affecting the online visibility of a website or a web page in a web search engine results. In this project, we are going to optimizing the search engine by using white Hat technique

on the basis of user’s search history. The term White Hat search engine optimization refers to white Hat search engine optimization tactics that are in line with the terms and condition for the major search engines, including Google [3]. Generally white Hat SEO refer to improves search ranking on a search engine results page while maintaining the integrity of your website and staying within the search engine terms of services. These tactics stay within the bound as define by Google. In Search Engine Localization to locate the nearby location such as hotels, restaurants, petrol pumps, etc we are using shortest path algorithm. And for navigation purpose we are using the GPS and A-GPS services.

### 2.3 System Architecture of the system

The architecture of the Search Engine Localization and Optimization to database system is shown below

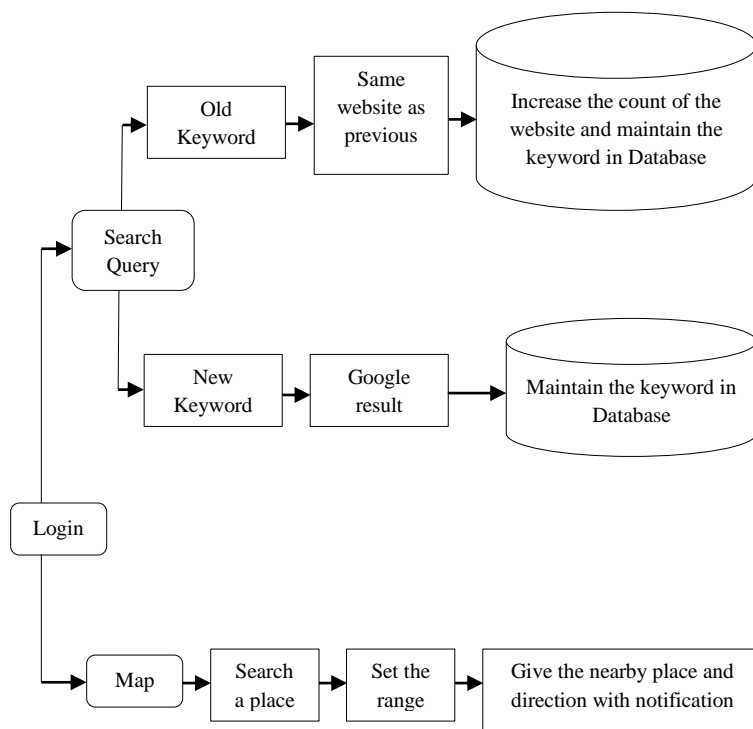


Fig 2.1: Architecture of Search Engine Localization & Optimization

**1. Search a query:** This is the tab where the user can search any keyword. Now the keyword can be an old keyword searched by the user previously or it can be a new one.

**1.1 New keyword:**

Suppose, if the keyword is a new keyword, the search engine will show the results according to the Google. That means the ranking of the website will as per the Google.

Also the keyword will be maintained in the database and the count is incremented.

**1.2 Old keyword:**

Now, if the keyword is already searched by the user previously then, the keyword is searched in the database and the same link used by the user previously again appears for the same keyword. And the count of the keyword is increased by one.

2. **Map:** This is the second tab present on the homepage.

**2.1 Current Location:**

This will take the latitude and longitude of the user's current position.

**2.2 Range filter:**

Now if the user wants to search a particular place then the user needs to enter a common keyword and then needs to provide a particular range.

This range will help the user in getting the places in that particular range only which is nearby to the location of the user.

**2.3 Notification:**

Also after searching the required place, the user will also get the notification of the nearby places in the notification bar.

### 3. CONCLUSION

The paper provides the brief idea about Search Engine Optimization and Localization and their working. It also illustrates the search engine optimization techniques like Black Hat SEO and White Hat SEO. We have studied all the existing system found that they are using A\* Algorithm the main disadvantage of A\* Algorithm is that if any obstacle encountered then it return back to the start point so to overcome that we are using Dijkstra's Algorithm it always give the quickest and the fastest track for Localization. Also we are using White hat optimization technique for query optimization so that the query will always be according to user behaviour. As a future dimension to this research, I intend to develop an effective and accurate system for search engine optimization for obtaining a higher rank for the websites in the search results.

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