

## Image Search Firewall with Content Filtering Mechanism

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### Abstract

*In Large scale storage system like google... if number of users are surfing same time for same kind of application, it creates extra traffic and makes server speed slow, here we are coming with an approach, where we are restricting unauthorized users from accessing the website. We are allocating the time period and within the time period only user will be able to use Image search applicaiton.*

### I. INTRODUCTION

#### 1.1 IMAGE SEARCH APPLICATION

Web-scale image search engines (e.g. Google Image Search, Bing Image Search) mostly rely on surrounding text features. It is difficult for them to interpret users' search intention only by query keywords and this leads to ambiguous and noisy search results which are far from satisfactory. It is important to use visual information in order to solve the ambiguity in text-based image retrieval. We propose a novel Internet image search approach. It only requires the user to click on one query image with the minimum effort. We are capturing user intension and giving him a particular direction to go with for getting desired image results.

Our key contribution is to capture the users' search intention from this one-click query image in four steps.

- (1) The query image is categorized into one of the predefined adaptive weight categories, which reflect users' search intention at a coarse level. Inside each category, a specific weight schema is used to combine visual features adaptive to this kind of images to better re-rank the text-based search result.
- (2) Based on the visual content of the query image selected by the user and through image clustering, query keywords are expanded to capture user intention.
- (3) Here we are implementing the above concept with Google search.
- (4) User will be clicking on image and will be directed to a google page containing similar images.

#### 1.2 EXISTING SYSTEM

In Existing system, therewere so many users accessing the application at a time, which was causing the traffic burdon, and making the speed slow.In Image Search application one way is text-

based keyword expansion, making the textual description of the query more detailed. Existing linguistically-related me thods find either synonyms

or other linguistic-related words from thesaurus, or find words frequently co occurring with the query keywords.

User was writing a query suppose- Apple, and was getting results like, green apple, red apple and apple laptop, tab etc... also. If user's intensions was red color fruit so other things were negative results for users. The following were negative in the existing system

1. No Firewall.
2. Text based Query.
3. Getting query name realted all kind of images.

#### 1.3 PROPOSED SYSTEM

In Proposed system, we are providing firewall functionality to the application. We are preventing the unauthorized users for using the applications. We are allocating fixed peroid of time, within fix type of users only are able to access the application. After time end they wont be able to access, and authorization will be shifted to other kind of users.

In applicationWe propose a novel Internet image search approach. It requires the user to give only one click on a query image and user will be redirected to a google page which will be containing only the desired/ directional search images.

### II. MODULES

- 2a.Home
- 2b.Registration
- 2c.Directiona Search
- 2d.Admin

#### 2a.HOME

It will be the first page, containing the basic information/overview of the project.

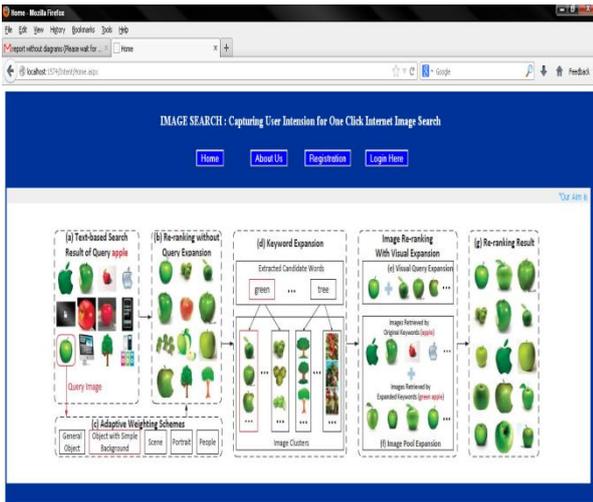


Fig a.1 home page

**2b.Registration**

Once the user registered, admin will cross check all the information that are provided is correct, and then he will allocate the user to use the application. Once the user log-in with username and password the application can be used.

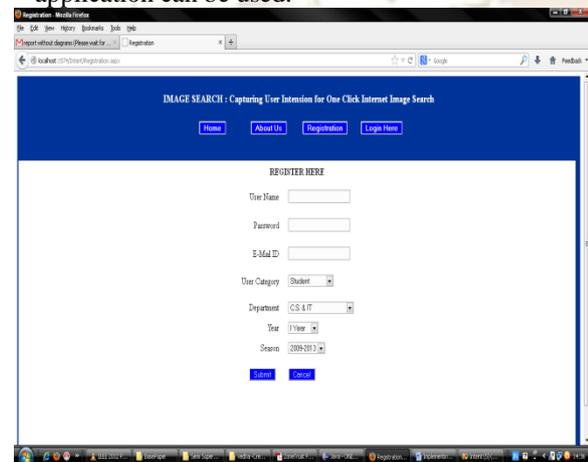


Fig b.1 Registration page

**2c.Direction Search**

Here we are providing the Directional search to the users, where users dont need to make text based queries, users will be provided different categories. they will have to click on desired category and then option images will be provided to users so that he can go to desired results soon. Here we are capturing the user intension, when user clicks the image and which one image the user has clicked on, similar images will be displayed in a new google page. The results will be improved. Number of negative images will be less. Since this an application we have used this would be blocked (invisible) until users get registered. Once the registration gets completed admin will allocate the time to use this application.



Fig c.1 Directional search is set to visible after admin actions.

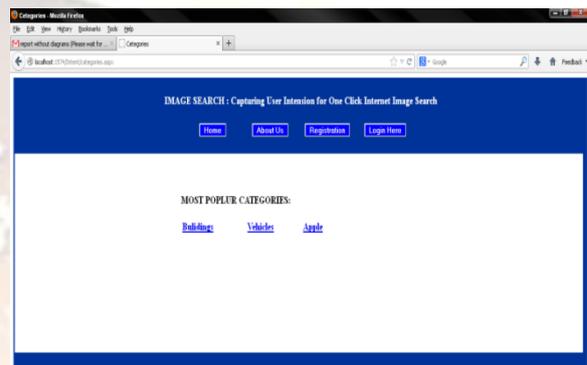


Fig c.2 Categories in directional search

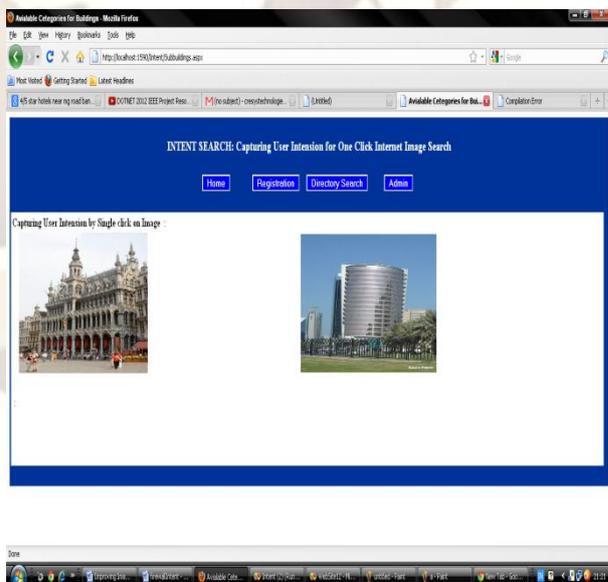


Fig c.3 categories nested

**RESULTS**

Here are the results of Intentional Search. By clicking on Historical kind of images on the

above snapshot, user will be getting all historical building kind of images only. As shown below.

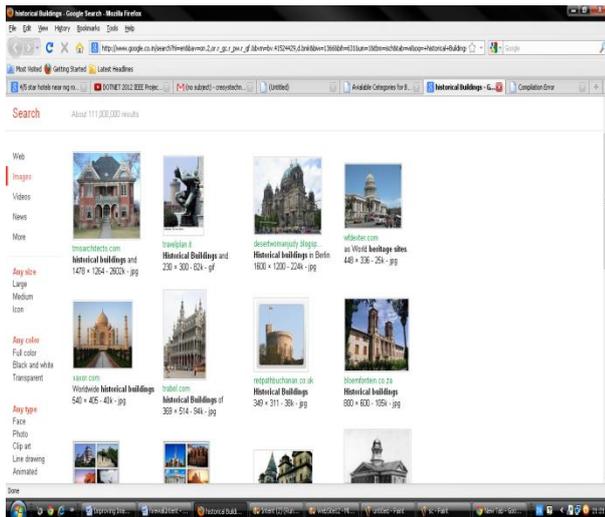
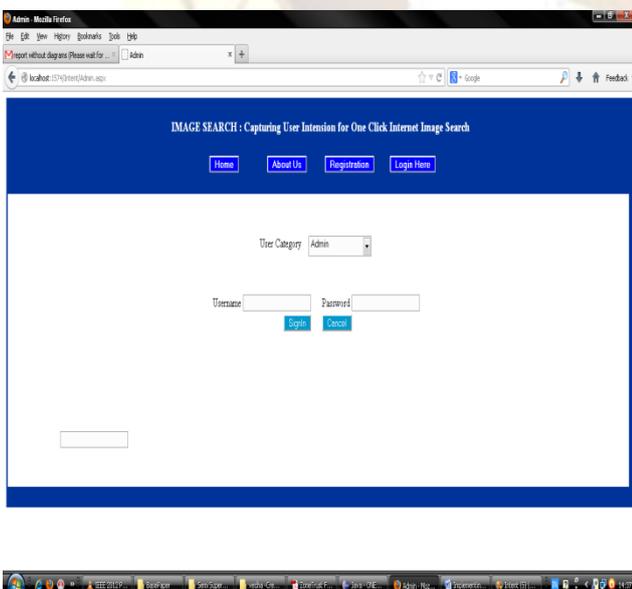


Fig c.4 results of one click image.

## 2d.ADMIN

- Admin will be able to modify the password of the users.
- Admin's main task will be implementing the firewall.
- And Providing the authorization to the users.
- And Allocating the time period for the users.

Admin will be able to allocate the fixed time for a fixed set of users and another time period of another set of users, so that speed and security will be maintained.



## ADMIN PAGE

If user is logging in with admin category, and entries are valid it will be directed to admin page where he will get options to switch to different pages. Either for firewall page, or update username/password page or for usual directional search.

## III. FIREWALL SETTING

Admin will be able to view the details of registered users. He can delete fake users. He will be able to change the password of registered users. he can allocate time period for valid users within what they are able to access Directional Search.

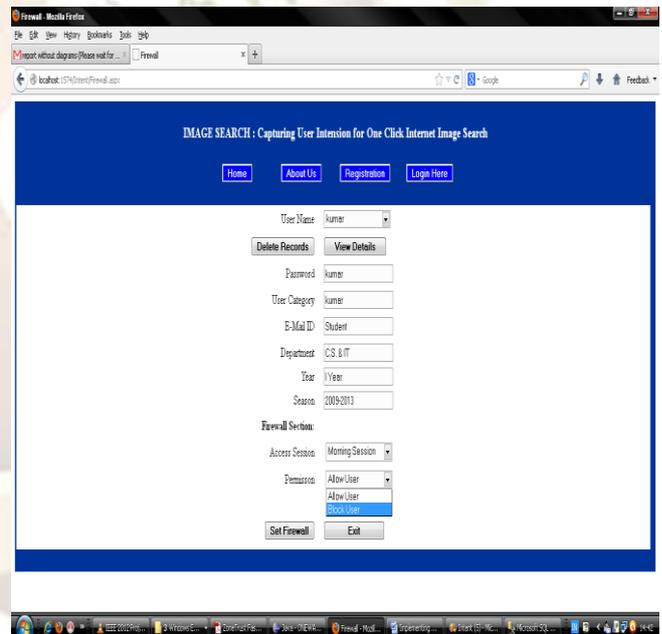
Admin can set permission according to sessions, if users is allowed to access the Directional image Search in morning session, or if user is blocked to access the directional image search in morning session.

For session four options will be given:

- 1-Morning Session
- 2-Evening Session
- 3-Prenight Session
- 4-Postnight Session

For Permission two options will be given:

- 1-Allow User
- 2-Block User



## IV. CONTENT FILTERING

Content filtering (also known as *information filtering*) is the use of a program to screen and exclude from access or availability Web pages or e-mail that is deemed objectionable. Content filtering is used by corporations as part of Internet firewall computers and also by home computer owners. Content filtering usually works by specifying character strings that, if matched, indicate undesirable content that is to be screened out. A most

based important factor while retrieving the images is the content filtering. This application removes the negative images of the user intention who wants to capture the positive images .

### V. SYSTEM ARCHITECTURE

For an operating system to be a useful and convenient interface between the user and the hardware, it must provide certain basic services, such as the ability to read and write files, allocate and manage memory, make access control decisions, and so forth. These services are provided by a number of routines that collectively make up the operating system *kernel*. Applications invoke these routines through the use of specific *system calls*. Because the kernel routines exist for the purposes of supplying specific services, the operating system has an underlying structure defined by these services. This underlying structure and its design are called the *system architecture*. The terms system architecture and system structure are used somewhat synonymously. Software engineers design and implement the system architecture of an operating system so that its parts work well together. System administrators, system programmers, applications programmers, and users refer to the system architecture to provide a conceptual understanding of the parts of the operating system and the relationships among them.

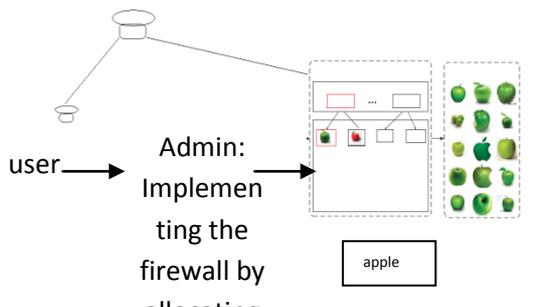
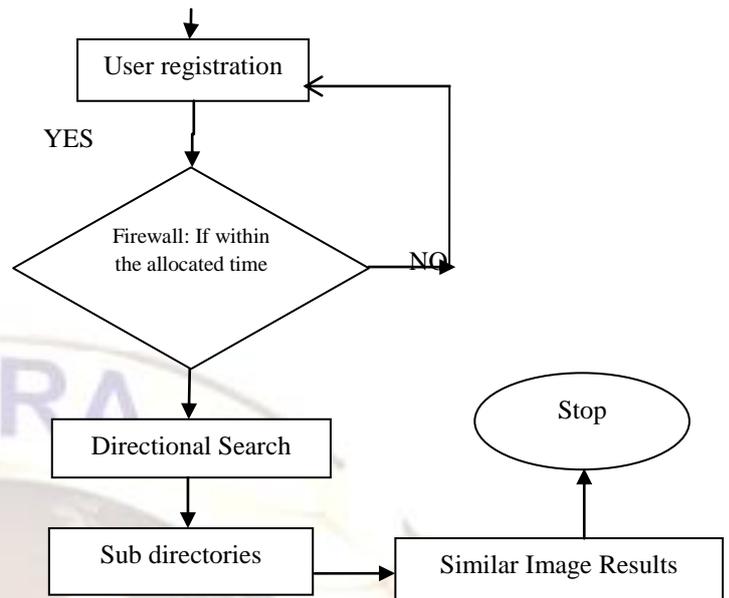
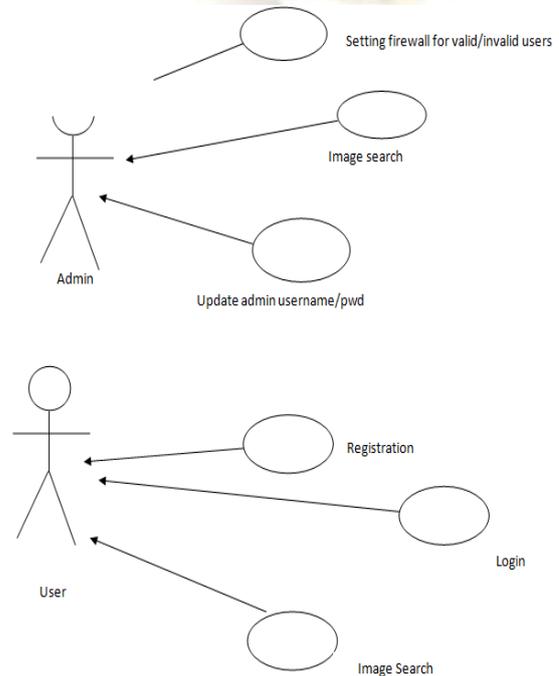


Fig 1. Architecture

### VI. FLOW CHART AND USE CASE DIAGRAM



### VII. USE CASE DIAGRAM



### VIII. CONCLUSION AND FUTURE WORK

- The users who are using their own servers with this kind of application can use this firewall.
- Server speed will be high, and can block the unauthorized users in accessing application.
- Security is also one of the important factors using this kind of application.
- This kind of providing firewall to the social networking sites can make the people to use



the sites for a small amount of period in order to avoid the demerits in it.

ContentFilteringMechanism". I would like to participate in national seminars.

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