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"DOCCIFI": A Simple, Secure and Smart Mechanism for Data Sharing

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Abstract: *Note-keeping is a vital trait of each student, moreover it is a valuable life skill. A set of concise, well-organized notes from each session gives you what you need for study, learning, and review after the session. Traditionally we performed note-keeping on paper and recently this responsibility is facilitated by Electronic Lab Notebooks. With the comprehensive enhancement of the technology, the learning moved to a smart track which helps the students to easily access the documents. In this paper the user can upload and access data simply and effectively. These files can be stored securely by face recognition mechanism and we can transport and access them very easily all over the world, conveniently and most easily. It gives out an efficient teaching app, in which the teachers can communicate, give assignments, evaluate assignments, conduct exams, etc. This app is employed in a behavioural study involving many participants. Automatic text summarization is a key function of this system to reduce the complexity of a large textual document.*

Key Word: *Room creation, Face detection using Haar cascade, Summarization.*

I. INTRODUCTION

In this technically advanced world, IT innovations still have a sophisticated role. The usage of E- documents goes to its extent. But one of the problems we are facing now is accessing the files from different locations where we want since, the files are at different locations and on different devices. For resolving this problem, a new idea of a website that can be used as an e-book is implemented. This E-book will help us to store and receive files in the same location, which can be used effectively as a learning technique. A user can create and join rooms in which each user can send and access documents. Each file can be downloaded and viewed. Rooms can be single or multi participant. Messaging options are set per room. This system supports all types of files. Meeting links can also be accessed in rooms. A security system with only a username and password is not secured, because of its easiness of identification. So, an additional security using face recognition [1] is introduced. It permits only authorized users to access the documents, and it maintains the privacy of the system.

While we accessing large documents, it will not be an easy task to read the whole document. To rectify this issue, it is necessary to provide a better way to extract useful information, so then we can access the documents quickly and effectively. So, an abstract generation for each document which will reduce [5] the time of valuating a document is also embedded in it. The need for automatic summarization [5] and the release of relevant information continues to be a productive research area. Abstract of text is one of the easiest and most convenient ways to identify important information in a document or to set a related document to a short version that preserves its full meaning [4]. An automatic summary helps to extract useful information while discarding non-essential pieces of information. This system is highly recommended for all types of school, office and personal purposes.

II. MATERIALS AND METHODS

Materials:

A. Hardware Requirements:
Processor: Intel Core i3 - 3220 (3.3 Ghz) or higher
RAM: 4 GB or more.
Storage: 512 GB or more.
Camera: Camera is used in this for face recognition

B. Software Specification
Operating System: Windows 10 or above.
IDE: Notepad ++
Front End: HTML, CSS, JavaScript
Back End: MYSQL, php, Python
Tool kit: XAMPP

Proposed System

This paper introduces a smart, simple and secure forum for sharing data and information. What can also be used by an educational institution as a clever way of teaching. This value is highlighted when there are multiple participants

Method:

Every person using the website is a user and can access all features of the website[2]. Before signing in to the website we need to register our details together with the username and password, the face of the user. Each time a user logs on to a website, the system checks the username and password in the database using SQL queries, and face detection using the Haar cascade algorithm[1],which is an algorithm for finding an object, used to identify a face in an image. Humans are different

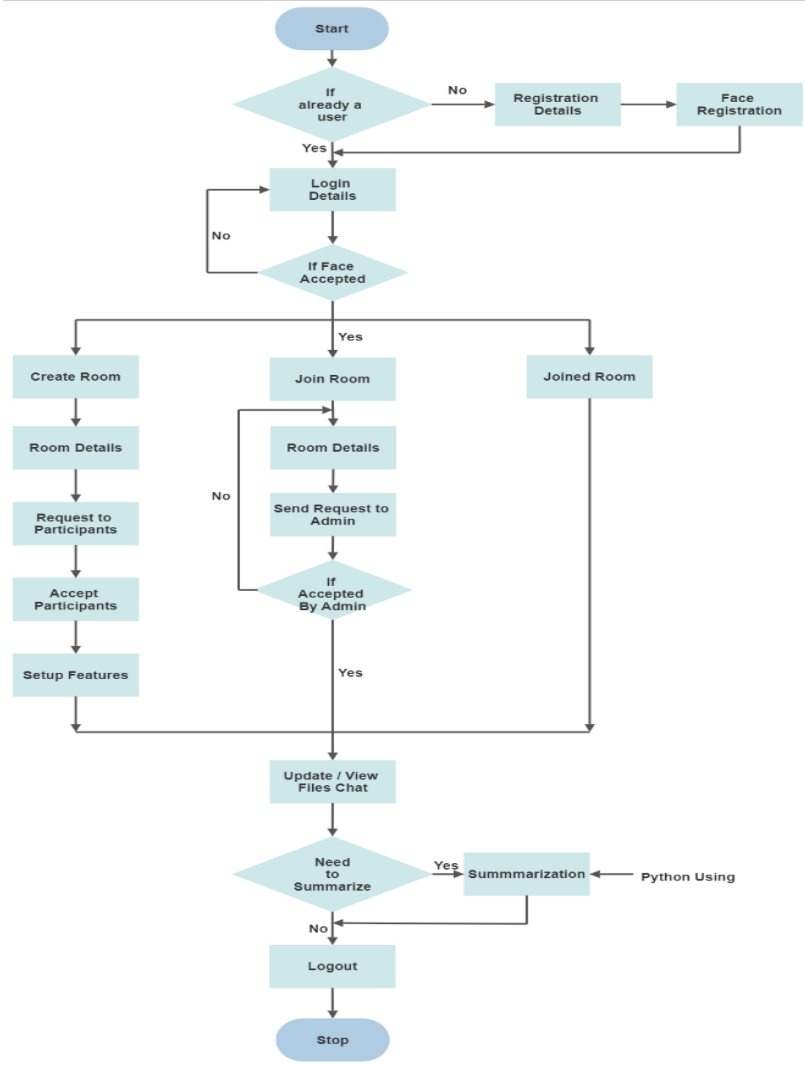

Fig1. flow chart of overall working

beings with facial features without their imagination and behaviour[3]. The technology and its rapid transformation are closely related to computer image processing is a program that processes image-based inputs and produces image-based output. The system produces a better-quality image. The human face is a dynamic object with different shapes and colours for face detection [1] to determine the presence of the face in the image and if it is positive, the location and size of each face will be detected and detected. This may improve the security of our web application. At login, a face is detected, and if the machine identifies it as a user, it allows login. Each user can create rooms where those users can access all aspects of management. It can be a single room or of multiple participants. The administrator of a group sends the request to various members. The members can accept those requests and join the room. This method can be useful for each user to join a room and it can also send requests to specific groups and can only enter that room if the administrator is allowed. Each member can communicate with the other by sending an instant message [6]. The admin can set tasks for each member which also sets an expiry time. Class meeting links can also be placed inside the webpage [2].

Individual users can upload and access documents. All file types are supported on a web page and can be viewed separately. Admin has a separate reception area for loading documents. So, the admin can access documents easily. For large text files, it is not easy to read and evaluate the entire content. The automatic text summary using the BERT algorithm [5] is implemented. One reason for this progress is the high embedding provided by transformer models such as BERT [5]. This system uses BERT sentence embedding to construct a dynamic summary taking two monitored modes. By the requirement, each document can be shortened. This program can be used for educational purposes, office use, and personal purpose.

III.RESULTS

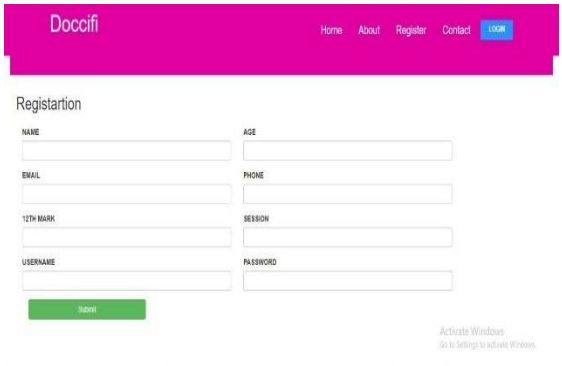

Fig 2. Registration form

This form consist of registration details, Username, password and face are get registered in this page.

Fig 3. Login page

The login page consists of username and password, after submission it will move for face recognition.

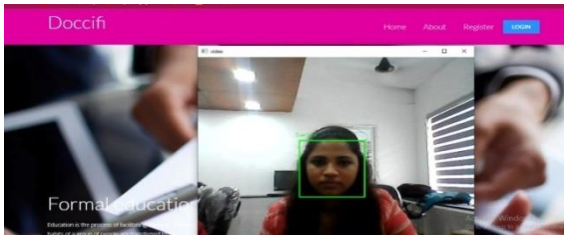

Fig 4. Face Detection

If the given face is accepted then moved to logged in page, else again move to login page.

Fig 5. Classroom Creation

This figure shows the creation of classroom with a tittle and description for class.

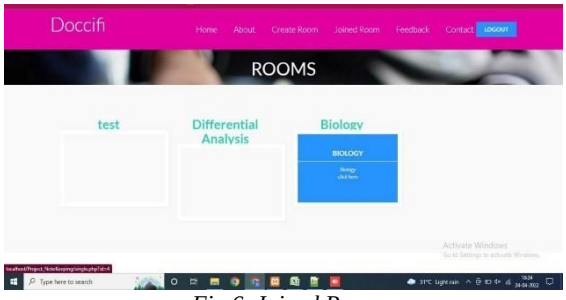

Fig 6. Joined Rooms

The rooms that are joined by the user can be viewed here. Each user can access file by clicking on each room

Fig 7. Summarizer key

The large documents can be summarized

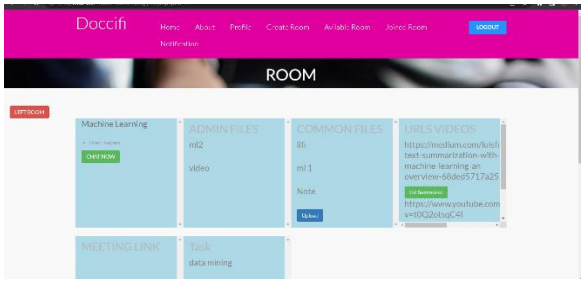

Fig 8. Created Room

Advantage:

Simple and easy method for document sharing between multi participants. All types of files are supported. Instant message option is available and high understands ability. User wants to spend less time in reading and understanding a document. No need to move different locations to store and access different types of documents. It is more efficient and highly secure technique.

IV.CONCLUSION

`Doccifi helps people to make a Secure, Simple, and Smart learning. It allows the user to access data from a single source conveniently and easily. Files can be uploaded and stored in separate rooms as per requirement. It also supports group communications in which both of them can communicate with each other by sharing documents and messaging, this allows an e-learning mechanism. The three-level protection such as username, password, and face recognition[1] make a secure entry and storage of data on the website. The text summarization [5] mechanism is also very helpful to reduce the complexity of a large textual document for quick and easy access to the information.

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