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Journal of Web Development and Web Designing

Aims and Scope

This Journal involves the basic principles of Web development and Web Designing; where Web development is a broad term for the work involved in developing a web site for the Internet (World Wide Web) or an intranet (a private network) and Web design encompasses many different skills and disciplines in the production and maintenance of websites.

Microsoft Visual Studio
Notepad++
ASP.NET
Typography
Motion Graphics
Quality of Code
Grid-Based Design
Screen Reading Devices
Embedded Systems
Graphic Design
Interface Design
Authoring using Standardized Code and Proprietary Software
Search Engine Optimization
HTML and CSS
Adobe Photoshop
Programming Skills

Journal of Web Development and Web Designing

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Web Application for Crime Analysis

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A B S T R A C T

Crime Analysis is records management and analysis of the crime investigation system. A crime is an unlawful act punishable by some authority or some state. The goal of the projectis to develop a reporting and management system that is easily made accessible to the citizen to lodge the complaints online, police department and the administrative department for analysis and start investigation as soon as the complaint has been registered. This is used to record crime information updated by station officer through a website online, which saves the time of the witnessed person and police can start investigation, faster, so that criminal can be punished as soon as possible and helps in reduction of the crimes.

Keywords: Web, Crime, offender, witness, investigation.

INTRODUCTION

A crime is an unlawful act punishable by a state or other authority. Crime is an illegal act for which someone can be punished by the government. As we know that there are many crimes that occur around where us. Generally many crimes seen by the public will not reach to the police due to many reasons like fear, lack of time, ignorance. Due to this reason many cases are not even reported to the police station. Though some cases are registered, they are not investigated properly. The problem with many of us is that, we will not worry about such things, because they may not be related to us or maybe we are afraid to go to police station and register the complaint. In both the cases, it is loss for citizen and also for the society. If we are not taking any action against illegal act happing around us, then in future, one or the other day we may have to suffer with such problems. To get rid of such problems citizens of the country must have to be alert and they should get ready to register the complaints. To make the work of the citizens easy, this website called "crime analysis" is helping the citizen by allowing them to register the complaints online through this website. This website helps the citizens also to view the status such as whether the case is resolved or is it still pending, after registering it online.The crime analysis website provides fully computerized framework for police department.

It allows the police officer to register the complaint online instead of writing on a paper and make a separate hard file for each complaint. It is simply wastage of the paper and time, by doing the registration online including who has registered the complaint, against whom, what is the crime case and its description and status update. Such information can be viewed by the administrator and he/she can analyze the cases which are registered and their status. Administrator can take the particular actions about the cases. As a result the work is transparent to all, such as citizens, police department and administrators.

BACKGROUND

According to the Law, a citizen can claim a complaint for a noticable unlawful act.

Examples :

- Kidnapping, - Robbery, - Assault, - Terrorism, - Domestic violence, - Gang violence, - Murder etc…

For any of such unlawful act, a First Information Report can be registered by the sufferer of the offence or by someone else on her/his behalf. The complaint report can be made in writing or orally to the police. FIR is the first step towards registration of complaint so that police can start investigation of the crime once the FIR is been registered.

The current scenario is that the person,who has eye witnessed the happening of unlawful act has to go to a Police Station to tell regarding the proceedings and claima complaint. A physical presence of the person is needed from the place of offence to the police station. Many times it happens that important information regarding the criminal is missed out by the victim because of this commute. Moreoverthe main problem is the availability of police station nearby. If police station is far away from the commencement of crime, then it requires more time for a person who has witnessed the crime to got to the station and register the complaint.Though in India there are systems existing in some of the states to register complaints online but the systems will not allow the person who has registered the complaint to view his complain status. This is one of the major drawbacks, because if the person cannot see his complaint status online then he/she needs to go to police station for enquiry of proceeding.

RELATED WORK

The informant/ complainant should go to the police station having jurisdiction over the area (where the offence is committed) and report to officer in-charge/ station house officer. In case information is given on telephone, the informant / complainant should subsequently go to the policestation for registration of F.I.R.[1].

This feature is made available to public for interaction with police indirectly. This system registers the complaints from people through online and is helpful to the police department in identifying criminals. In this system any person can register their complaint online. The aim of this project is to develop an E-cops reporting and management system which is easily accessible to the public, police department and the administrative department [2].

Disadvantages of existing systems are

Wastage of time and paper.

Misplace of complaint paper can lead to negligence of the police department.

No user authentication is provided.

Publically complaints can be viewed thus they provide no security and privacy, means anybody's complaint can be viewed by any other person.

No status information, means complaint is still pending or is it solved? Such information is not made available to the person who has registered the complaint.

To overcome all these disadvantages or problems of existing systems it is necessary to develop a system which will help the people to register the crime complaints online and can view their status regarding whether it is pending or solved without anybody's fear and help in making the country free of crime.

SYSTEM

Features of proposed system are:

It helps citizen to register complaints online without anybody's fear.

View complaint status such as the complaint registered is pending or solved.

User authentication to avoid fake complaints.

Admin can analyze the cases.

The proposed system crime analysis includes mainly four modules. They are :-

Admin
Station admin
Employee
Citizen.

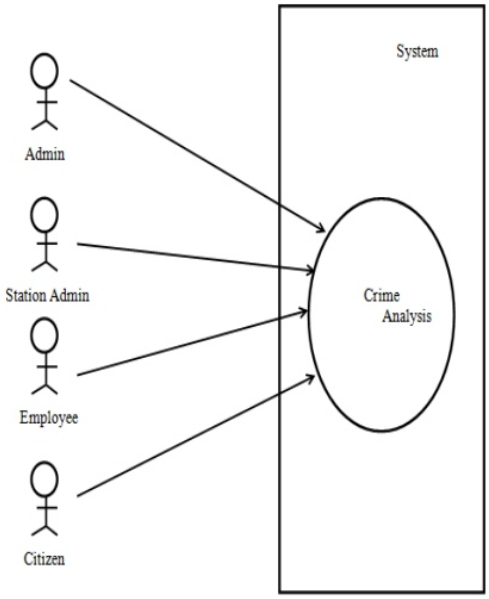


Fig 1: System Design

Admin Module Architecture

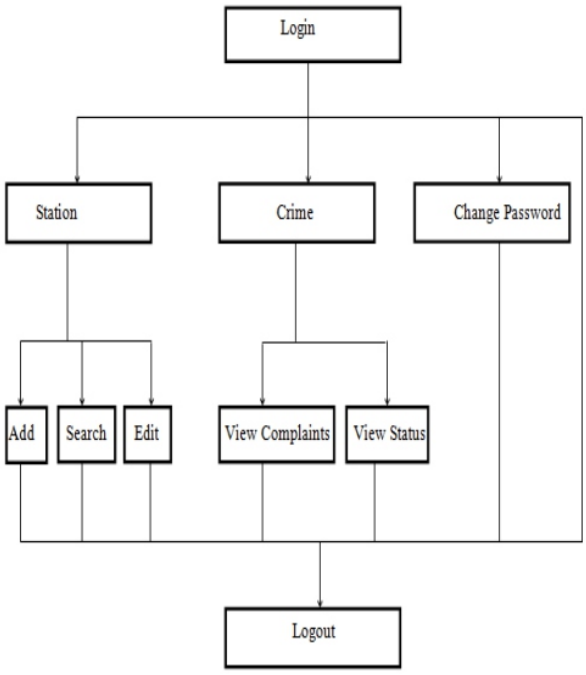


Fig 2: Admin Module Architecture

As shown in the fig2 Admin module architecture initially the admin has to first login to the system. Admin can login with Id and Password. Admin can add new station. Station Id is the unique Id. Admin can add the required information that are station name, contact number, email, area, city, district and password, then the new station will be added. Admin can view the stations list that are existing and

search a particular station by its name, and Admin can also edit the station profile details. Admin can view the complaints that are registered. Admin can view the complaint status means whether the complaint is pending or solved. Admin can change the password. Finally admin can logout.

Station Admin Module Architecture

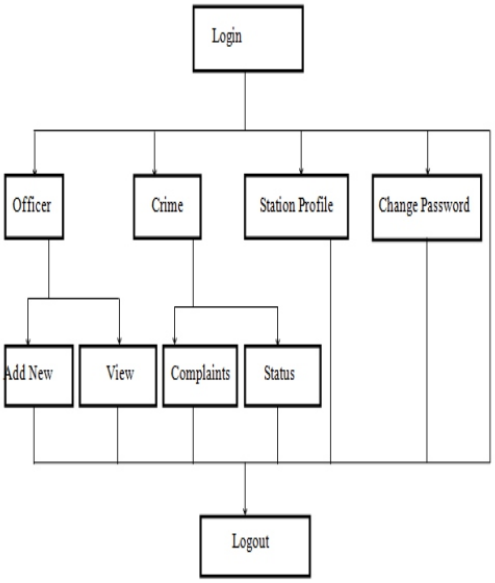


Fig 3: Station Admin Module Architecture

The station admin can get access to system by logging into the system by entering particular station Id, Password and selecting appropriate station name. If station admin has forgotten the password then he/she can get it by providing the email Id and station name. Then the password will be mailed to email and then the station admin can login. Station admin can add new station officer by entering required details such as officer Id which is unique, name of the officer, date of joining, gender, height, weight, email, contact, address and password. Station admin can view the list of officers and their details. Station admin can also view the station profile such as Id, station name, contact details. Station admin can view the complaints and details regarding who is registered the complaint against whom, which type of case is it and description. Station admin can also view the complaint status. Station admin can change the password. Finally station admin can logout.

iii) Employee Module Architecture

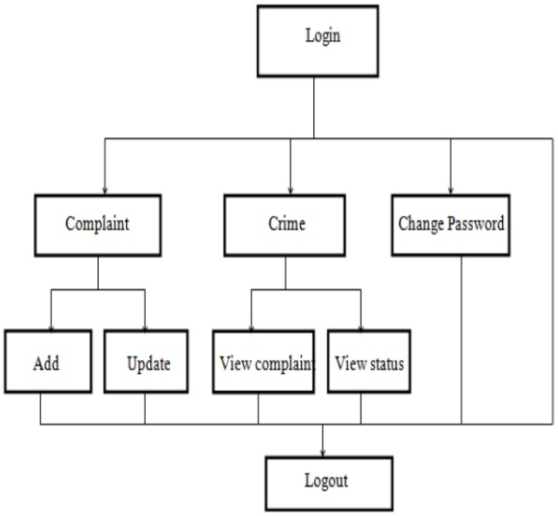


Fig 4: Employee Module Architecture

Employee can log in by entering Id, password and selecting station. If employee has forgotten the password then he/she can get it by providing the email Id and station name. Then the password will be mailed to email and then the station admin can login.
Employee can update the status of complaint (pending or solved) and can print the complaint. Employee can view the complaints and details regarding who is registered the complaint against whom, which type of case is it and description. Employee can also view the complaint status. Employee can change the password.
Finally employee can logout.

Citizen Module Architecture

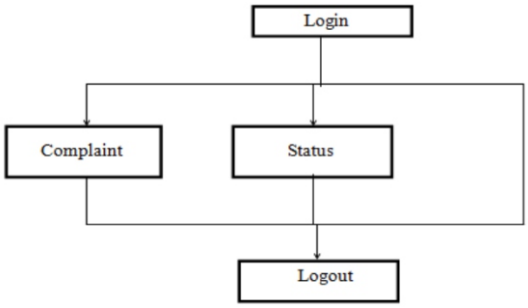
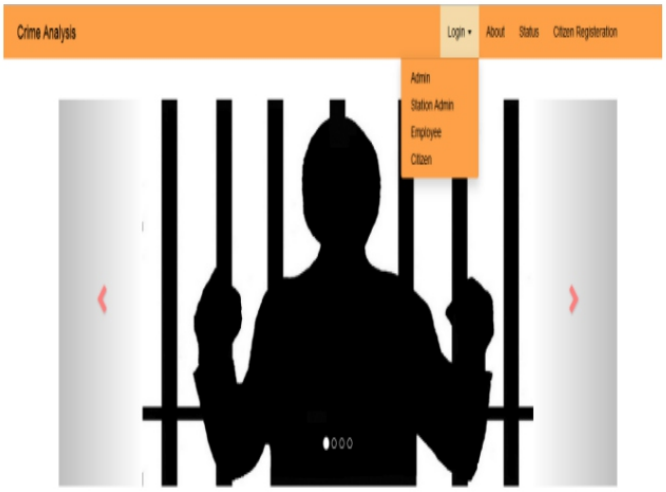


Fig 5: Citizen Module Architecture

Citizen can register the complaints but before registering the complaint the citizen has to register himself/herself by entering details such as name, gender, email, contact, address, password, profile image, aadhar number. If citizen has forgotten the password then he/she can get it by providing the email Id. Then the password will be mailed to email and then the station admin can login. Citizen can view the status of complaint by entering the complaint Id, station name and clicking on submit. Then citizen can logout.

RESULTS



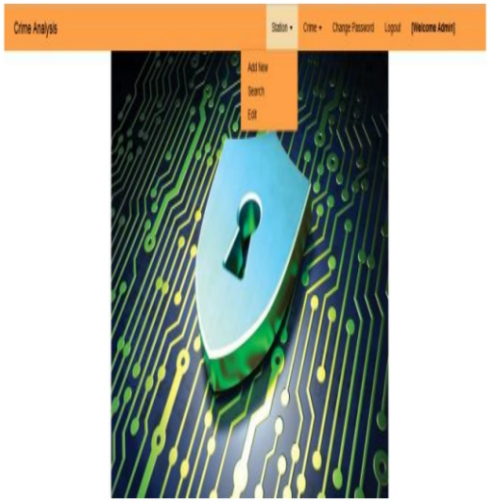
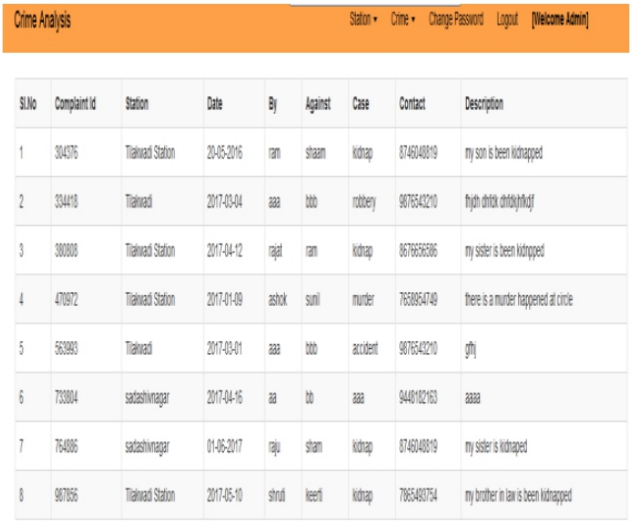
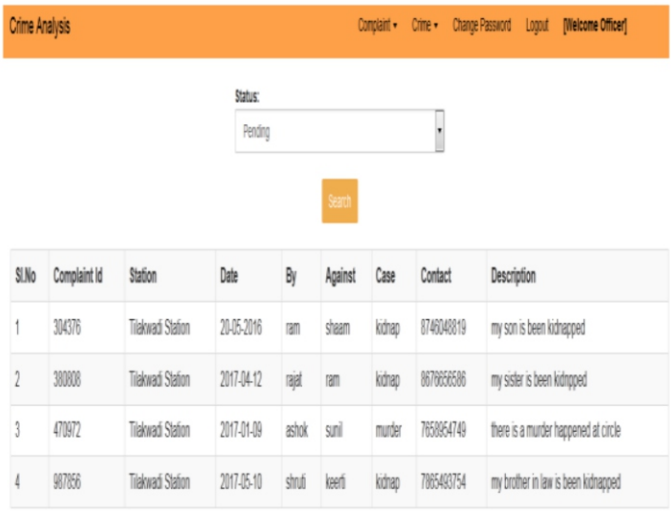


Fig 7: Admin page



Sl.No	Complaint Id	Station	Date	By	Against	Case	Contact	Description
1	304376	Tilakwadi Station	20-05-2016	ram	shaam	kidnap	8746048819	my son is been kidnapped
2	334418	Tilakwadi	2017-03-04	aaa	bbb	robbery	9876543210	fhjdh dhfdk dhfdkjhfkdjf
3	380808	Tilakwadi Station	2017-04-12	rajat	ram	kidnap	8678656586	my sister is been kidnpped
4	470972	Tilakwadi Station	2017-01-09	ashok	sunil	murder	7658954749	there is a murder happened at circle
5	563993	Tilakwadi	2017-03-01	aaa	bbb	accident	9876543210	gfhj
6	733804	sadashivnagar	2017-04-16	aa	bb	aaa	9448182163	aaaa
7	764986	sadashivnagar	01-06-2017	raju	sham	kidnap	8746048819	my sister is kidnaped
8	987856	Tilakwadi Station	2017-05-10	shruti	keerti	kidnap	7865493754	my brother in law is been kidnapped

Fig 8: Complaints viewed by admin



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4	987856	Tilakwadi Station	2017-05-10	shruti	keerti	kidnap	7865493754	my brother in law is been kidnapped

Fig 9: Complaints viewed by Employee

Fig 10: Station admin log in

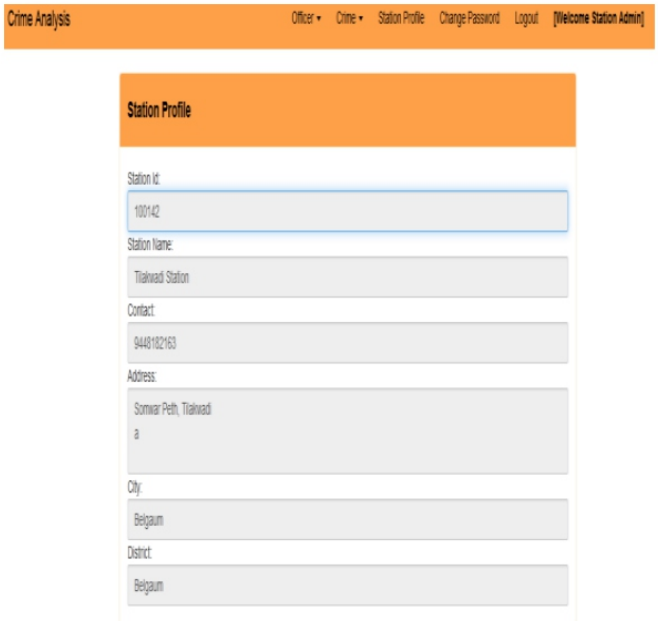

Fig 11: Station profile

SOFTWARE/TECHNOLOGY USED WAMP: WAMP withstands for –"Windows, Apache, MySQL, and PHP". It is used for web development and internal testing.

PHP :PHP is used because of its features, as it can handle forms, gather data from files, save data to a file. One can add, delete, modify elements within database using PHP. Using PHP, one can put restriction on users to access some pages of website.

JAVASCRIPT : It is a scripting language often used for client-side web development. JavaScript is used to add interactivity to HTML pages.

BOOTSTRAP : It is a powerful front end framework for faster and also easier web development.

Bootstrap includes HTML and CSS based templates designs for commonly used user interface components.

CONCLUSION

This project will help citizens to register complaints online, check their status whether it is pending or solved by reducing a burden of writing complaints manually by going to police stations. Registering aadhar card number of users will provide true identity of the user. This project also helps administrative authority to view the complaints registered in particular station and see the complaint status whether they are solved or pending, if they are pending from long time admin can take further actions regarding those complaints and officer who is handling that compliant. This also helps in analyzing the crime that are happening by keeping the records.

FUTURE SCOPE

This project can be enhanced and implemented in real-life by introducing more level of security for the data using encryption and decryption techniques. Also can use aadhar number with the permission of respected authority, to detect fake complaints given by people.

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A Self-Diagnosis Medical Chatbot Using Artificial Intelligence

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ABSTRACT

To lead a good life healthcare is very much important. But it is very difficult to obtain the consultation with the doctor in case of any health issues. The proposed idea is to create a medical chatbot using Artificial Intelligence that can diagnose the disease and provide basic details about the disease before consulting a doctor .To reduce the healthcare costs and improve accessibility to medical knowledge the medical chatbot is built. Certain chatbots acts as a medical reference books, which helps the patient know more about their disease and helps to improve their health. The user can achieve the real benefit of a chatbot only when it can diagnose all kind of disease and provide necessary information. A text-to-text diagnosis bot engages patients in conversation about their medical issues and provides a personalized diagnosis based on their symptoms. Hence, people will have an idea about their health and have the right protection.

Keywords: Artificial Intelligence, Prediction, Pattern matching, Disease, Query processing

INTRODUCTION

Artificial Intelligence is based on how any device perceives its Environment and takesactions based on the perceived data to achieve the result successfully. It is the study of intelligent agents. The term "artificial intelligence" is applied when a machine mimics "cognitive" functions that humans associate with other human minds, such as "learning" and "problem solving. Artificial Intelligence gives the supreme power to mimic the human way of thinking and behaving to a computer.

A chatbot (also known as a talkbot, chatterbot, Bot, IMbot, interactive agent, or ArtificialConversationalEntity) is a computer program which conducts a conversation via auditory or textual methods. These programs are designed to provide a clone of how a human will chat and thereby it acts as a conversational partner rather than humans. For various practical purposes like customer service or information acquisition, chatbot is being used in the dialog system. Mostly chatbots uses natural language processing for interpreting the user input and generating the corresponding response but certain simpler systems searches for the keyword within the text and then provides a reply based on the matching keywords or certain pattern. Today, chatbots are part of virtual assistants such as Google Assistant, and are accessed via many organizations' apps, websites, and on instant messaging platforms. Non-assistant applications include chatbots used for entertainment purposes, for research, and social bots which promote a particular product, candidate, or issue.

Chatbot's are such kind of computer programs that interact with users using natural languages. For all kind of chatbots the flow is same, though each chatbot is specific in its own area knowledge that is one input from human is matched against the knowledge base of chatbot. Chatbot's work basically on Artificial intelligence, so using this capability we have decided to add some contribution to the Health Informatics.

The high cost of our healthcare system can often be attributed to the lack of patient engagement after they leave clinics or hospitals. Various surveys in this area have proved that that chatbot can provide

healthcare in low costs and improved treatment if the doctors and the patient keep in touch after their consultation. To answer the questions of the user chatbot is used. There is very less number of chatbots in medical field.

The proposed system provides a text-to text conversational agent that asks the user about their health issue .The user can chat as if chatting with a human. The bot then ask the user a series of questions about their symptoms to diagnose the disease. It gives suggestions about the different symptoms to clarify the disease. Based on the reply from the user the accurate disease is found and it suggests the doctor who needs to be consulted in case of major disease. The system remembers past responses and asks progressively more specific questions in order to obtain a good diagnosis. The three primary components of our system are (1) user validation and extraction of symptoms from the conversation with the user,
(2) accurate mapping of extracted (and potentially ambiguous) symptoms to documented symptoms and their corresponding codes in our database, and (3) developing a personalized diagnosis as well as referring the patient to an appropriate specialist if necessary. Thereare certain chatbots in the medical field that already exists they are Your.MD, Babylon, and Florence, but current implementations focus on quickly diagnosing patients by identifying symptoms based on pure system initiative questions like natural conversation. Our system focuses solely on the analysis of natural language to extract symptoms, which could make it easier for elderly, less technical users to communicate their symptoms as well as make it relatively straightforward to support spoken language by adding NLG components. In its current form, our bot's best application would be as a preliminary diagnosis tool that patients could use to assess their symptoms before going to the doctor, perhaps using the bot's specialist referral feature to choose the right care provider

LITERATURE SURVEY

Simon Hoermann[1] discuss the current evidence for the feasibility and effectiveness of online one-on-one mental health interventions that use text-based synchronous chat. Synchronous written conversations (or "chats") are becoming increasingly popular as Web-based mental health interventions.This review is based on an evaluation of individual synchronous Web-based chat technologies. Through the current evidence of the application of this technology, the tentative support for mode of intervention is seen. Interventions utilizing text-based synchronous communication showed better outcomes compared with Waitlist conditions and overall equivalent outcomes compared with Treatment As usual, and were at least as good as the comparison interventions. However, the issue of whether these technologies are cost effective in clinical practice remains a consideration for future research studies.

Saurav Kumar Mishra[2] says that the chatbot will act as a virtual doctor and makes possible for the patient to interact with virtual doctor. Natural language processing and pattern matching algorithm for the development of this chatbot. It is developed using the python Language. Based on the survey given it is found that the no of correct answer given by the chatbot is 80% and incorrect/ambiguous answer given is 20%.From this survey of chatbot and analysis of result suggested that this software can be used for teaching and as a virtual doctor for awareness and primary care.

DivyaMadhu[3] proposed an idea in which the AI can predict the diseases based on the symptoms and give the list of available treatments If a person's body is analyzed periodically, it is possible to predict any possible problem even before they start to cause any damage to the body.Some Challenges are research and implementation costs, and government regulations for the successful implementation of personalized medicine, they are not mentioned in the paper.

HameedullahKazi[4], describes the development of a chatbot for medical students, that is based on the

open source AIML based Chatterbean. The AIML based chatbot is customized to convert natural language queries into relevant SQL queries. A total of 97 question samples were collected and then those questions were divided into categories depending on the type of question. According to the number of questions in each category the resultant categories were ranked.Questions were based on quries, where 47% are of posed questions. Other categories has less than 7%. The system has not been specially designed for the task of supporting natural dialog in chatbots or, providing responses to student queries

PROPOSED SYSTEM

In the proposed system the user dialogue is a linear design that proceeds from symptom extraction, to symptom mapping,where it identifies the corresponding symptom, then diagnosis the patient whether it's a major or minor disease and if it's a major one an appropriate doctor will be referred to the patient, the doctor details will be extracted from the database, the user will be identified by the login details which is stored in the database.

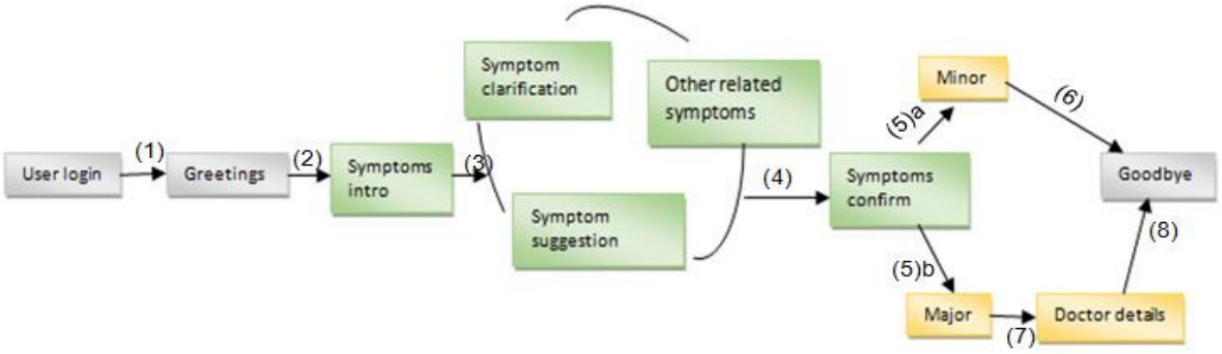

Fig1: Finite state graph

In fig1, Chatbot's dialogue design is represented using finite state graph. In order to achieve an accurate diagnosis, the logic for state transitions are made, natural language generation templates were used, and system initiative to the user and get responses from the user. Besides its greetings and goodbye states, our agent has three main conversational phases: acquisition of basic information, symptom extraction, and diagnosis. Our bot starts off by asking about the user's email and password for login and then enters a loop of symptom extraction states until it acquires sufficient information for a diagnosis. Users have the option of entering the loop again to talk to the doctor about another set of symptoms after receiving their first diagnosis and the another option is that the user can view their history of chats about what they have discussed.

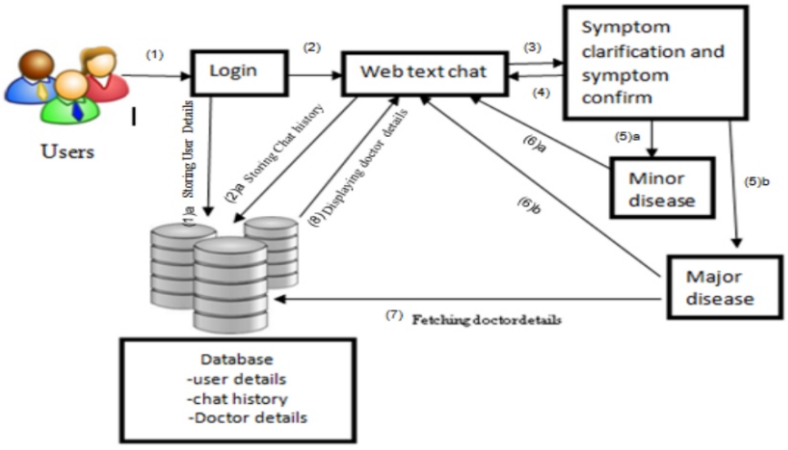

Fig2: Functional Architecture

The above Figure proceeds with the users login where the users' details will be stored in the database. Then the user can start their conversation with the chatbot and it will be stored in the database for future reference. The chatbot will clarify the users symptoms with serious of questions and the symptom conformation will be done. The disease will be categorized as minor and major disease. Chatbot will reply whether it's a major or minor disease. If it's a major one user will be suggested with the doctor details for further treatment.

USER VALIDATION AND EXTRACTION OF SYMPTOMS

The validation of the user login details occurs here. Then Symptoms are extracted using String Searching Algorithm where substring representing the symptoms is identified in the natural language text input. When users give directly thesymptom name such as(e.g. "I have a cough, fever, and nausea"), the system will easily identify it. But however, the system should also be able to handle input like, "When I read, I'm okay at first, but over time, my eyes seem to get tired, and I start to see double." In this case, the system should extract substrings like "eyes tired" and "see double" (and not substrings like "read" or "okay").

MAPPING EXTRACTED SYMPTOMS WITH TRAINED DATASETS

Given some extracted substring from the user's input, we generate a list of suggested closest symptoms .We then ask the user to confirm if they have any of the suggested symptoms. Based on their reply few diseases are being shortlisted. Then further symptom clarification and symptom suggestions are being done by asking the users a series of questions and the mapping of the symptoms to the exact disease is done.

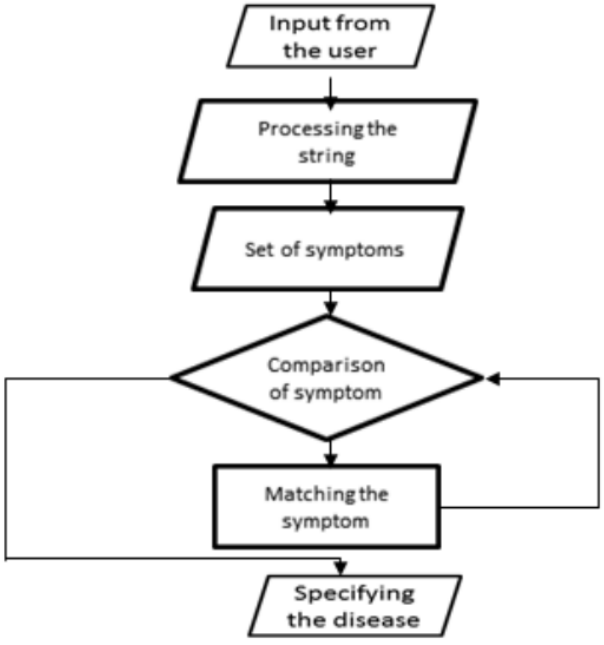

Fig 3: Specifying the disease

SPECIFYING THE DISEASE AND REFERRING A DOCTOR

This process carries the list of diseases in the database and each symptom being entered is compared to the symptoms of the common diseases. Next symptom is checked until a matching one is found. The diseases are shortlisted based on the end users input on the question evaluation. The accurate disease is

identified and specified to the end user by the chatbot. The chatbot checks whether the identified disease is a major issue or minor issue based on the conditions built in the chatbot. If it is a major issue the chatbot refers a specialist to the end user by sending the doctor details .And if it is a minor issue the chatbot specifies the disease and alerts the end user with a first aid or remedy and asks to visit a doctor shortly.

RESULT AND DISCUSSIONS:

The project result is as follows The user will have text to text communication with the chatbot and get the specific disease and the user can also get their previous chat history through their details which are stored in the database.

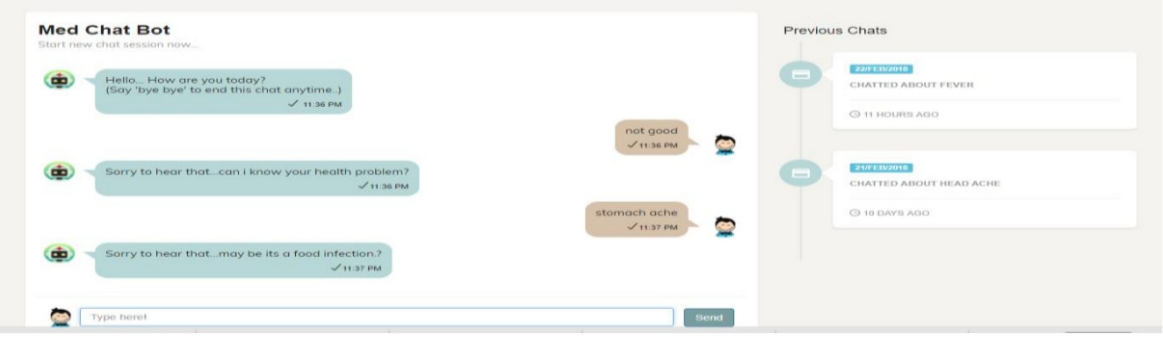

Fig4: Result Prediction

The above figure shows how the user text with the chatbot and the accurate result will be shown to the user at the end of symptom clarification. Then the user can view their previous chat to know what they have discussed earlier.

CONCLUSION AND FUTURE SCOPE

From the review of various journals, it is concluded that, the usage of Chatbot is user friendly and can be used by any person who knows how to type in their own language in mobile app or desktop version. A medical chatbot provides personalized diagnoses based on symptoms. In the future, the bot's symptom recognition and diagnosis performance could be greatly improved by adding support for more medical features, such as location, duration, and intensity of symptoms, and more detailed symptom description. The implementation of Personalized Medical assistant heavily relies on AI algorithms as well as the training data. At last, the implementation of personalized medicine would successfully save many lives and create a medical awareness among the people. As said before, the future era is the era of messaging app because people going to spend more time in messaging app than any other apps. Thus medical chatbot has wide and vast future scope. No matter how far people are, they can have this medical conversation. The only requirement they need is a simple desktop or smartphone with internet connection. The efficient of the chatbot can be improved by adding more combination of words and increasing the use of database so that of the medical chabot could handle all type of diseases. Even voice conversation can be added in the system to make it more easy to use.

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Research on Alumni Portal

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ABSTRACT

Alumni portal is the advanced communication way. It is for the same institute students family because of this alumni portal the present students, Ex-students can easily keep themselves in contact with each other. Not only students but the teachers, management members & everyone who is attached with the same institute are the part of this alumni portal.

Keywords: database, login, search Engine, online, web based

INTRODUCTION

Alumni Portal system represents the communication between institute, students and every institute related members in a database form. This is an online application accessed by throughout the institute and ex-students. Ex-students can access the portal with proper login credentials according to the database which will give better performance to the users.

A. Scope

Alumni Portal is the system which is accessed through organization in a protective private manner. This information is surely safeguard by organization and only provided under the condition. The office of alumni and college provides constituent information to all users only under the terms and conditions.

B. Overview

Overall description consists of background of the entire specific requirement. It also gives explanation about actor and function which is used. It gives explanation aboutarchitecture diagram and it also gives what we are assumed and dependencies. It alsosupport specific requirement and also it support functional requirement, supplementary requirement other than actor which is used. It also gives index and appendices. It also gives explanation about any doubt and queries. In everyone's life the higher education or service based education plays an important role. It is as the limestone in life for further progress he/she should be in contact with his/her previous institute and friend circle. The alumni pages helps to provide new source of their earning services list can create interaction between alumni's.

C. Need for Better Alumni System: As human being is a social animal. It is necessary and compulsory for him/her to express to share his/her ideas. From Stone Age, networking is on but in a different way. But nowadays online networking is the effective social media. So Alumni portal plays an important role. Existing alumni systems are usually developed to facilitate networking between the alumni and their respective universities, but most of these current systems are not being used by the majority of the alumni for many reasons.

LITERATURE REVIEW

For the Alumni Portal, we have observed some current alumni portals:

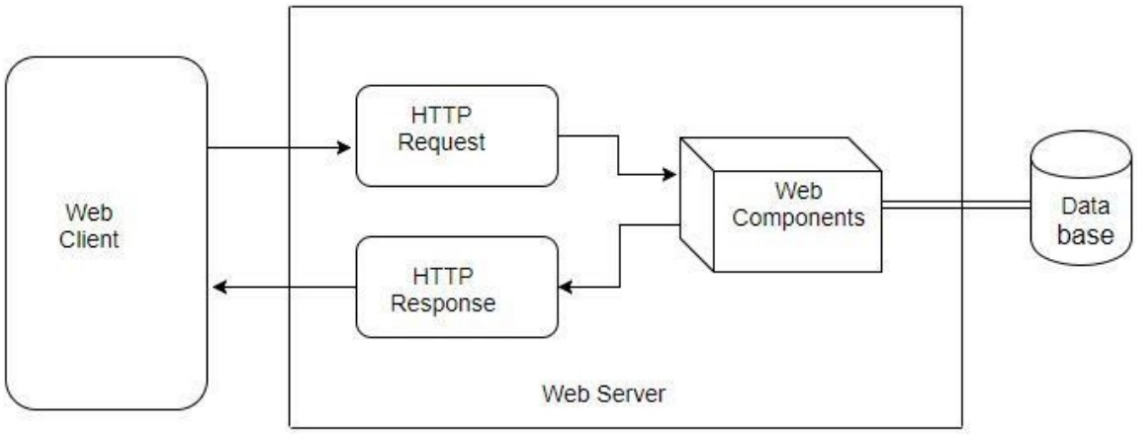
A. Harvard Alumni Portal:

Front page of this portal shows the features like login tab so that the alumnus can login easily, ways to connect for connecting the junior and the pass out students, make gift for various occasions like birthdays or anything else. With that Harvard provides Features News for surrounding information's, Lecture details which describes the schedule, events and the Notice are displayed on home page itself with the present event. If by intelligence and luck and it is surely possible any student reaches at top position and he/she want to get help the previous institute in any manner such as giving donation, providing computers or advanced machinery or technology this Alumni Portal helps in easier way.

B. IIT Kanpur:

IIT has Gallery with many images, Lectures details with specific day and time; contacts which show whom all are connected with this portal, woman alumni convention as separate for the woman only on the Home page. Home page underline difficulties try for junior students so they can get solution through this Alumni Portal. For better visualization it is highlight on every page IIT Kanpur shows information events about current situation.

SYSTEM ARCHITECTURE



OBJECTIVE AND SCOPE

A. Objective:

Alumni's are:

A valuable source for referral recruitment.

To know the reputation or quality of our college's education through the position of ex-student of our college.

To be updated with the correct knowledge which runs outside world to do our own progress.

B. Project Scope:

This alumni portal would provide common platform to interact students, alumni and college altogether.

Portal provides dynamic feature such as active user status, chat rooms, personal chatting & messaging

Virtual alumni meetings

Job posting

Internships

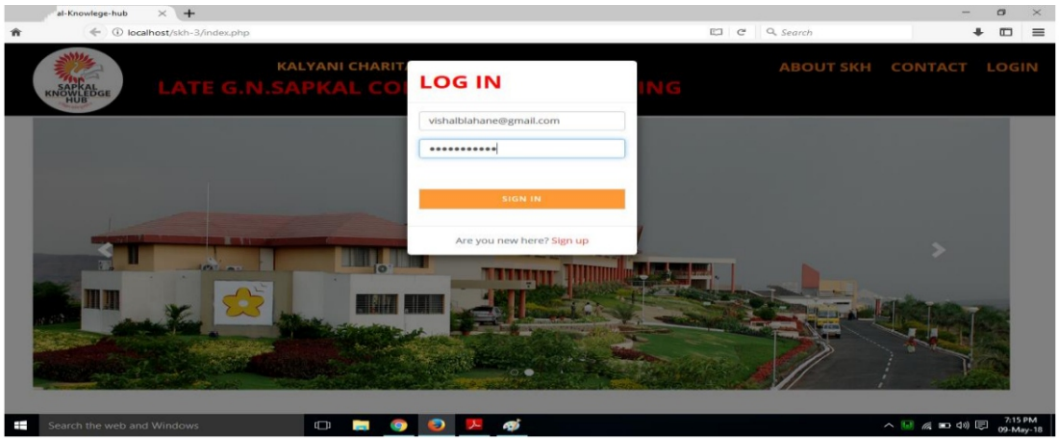
Industry sponsored projects

Entrepreneurial guidance.

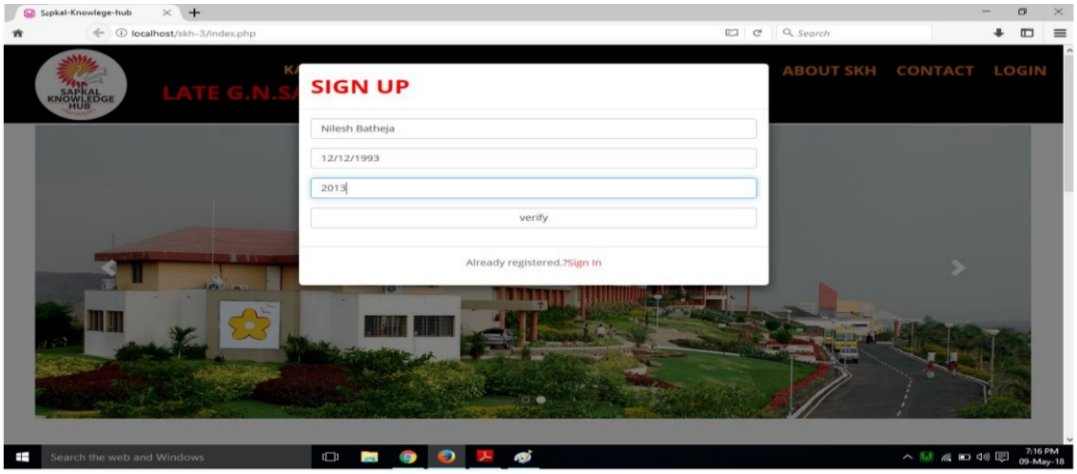
Online expert lecture videos

Research Results

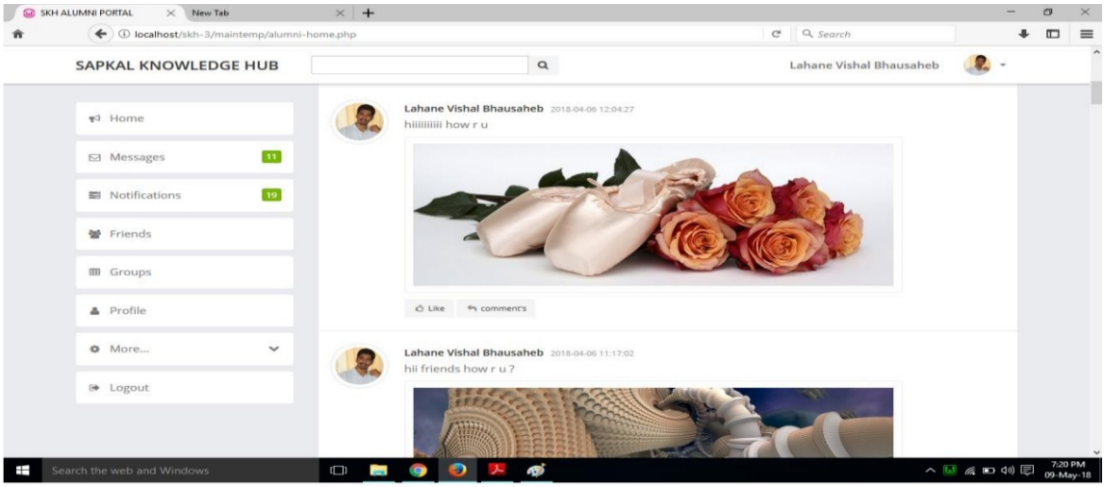
Login Page



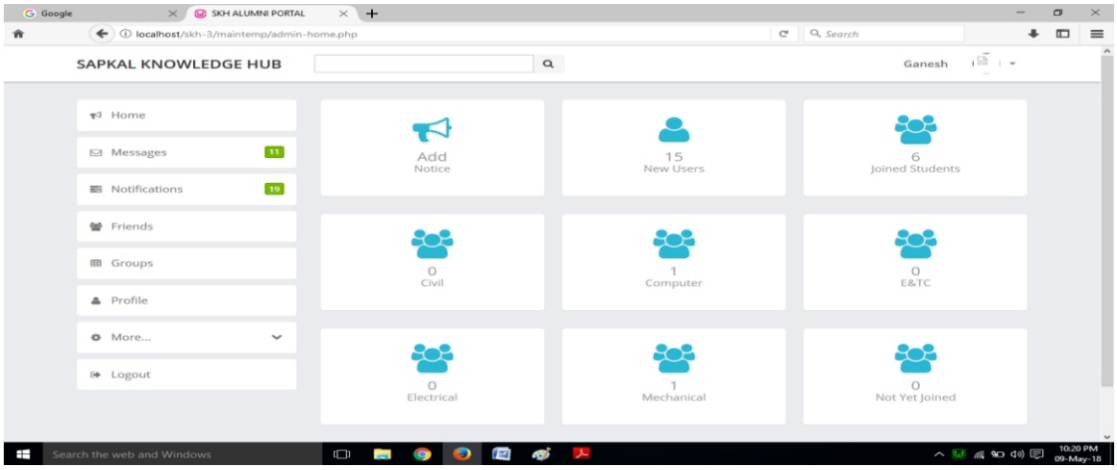
Sign Up



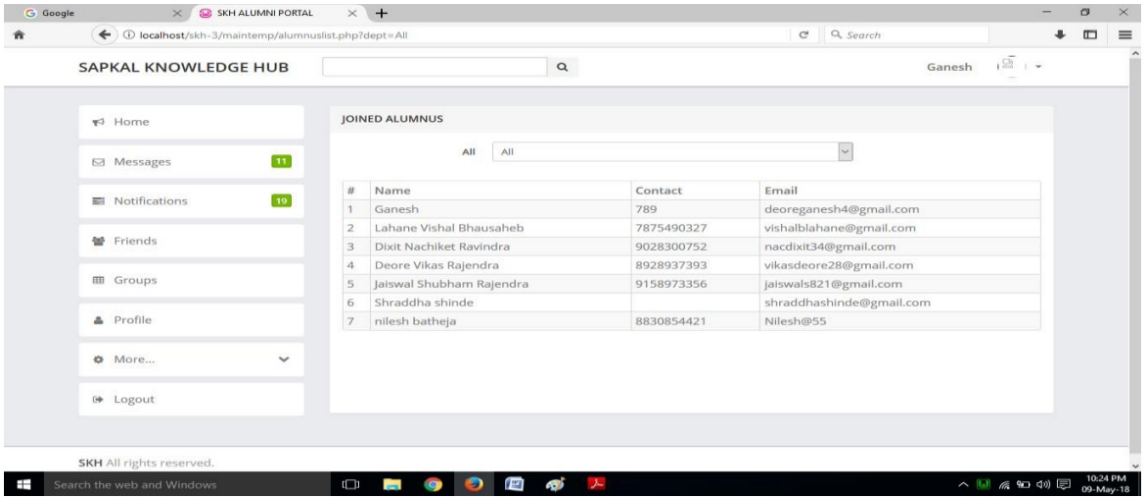
User Home Page



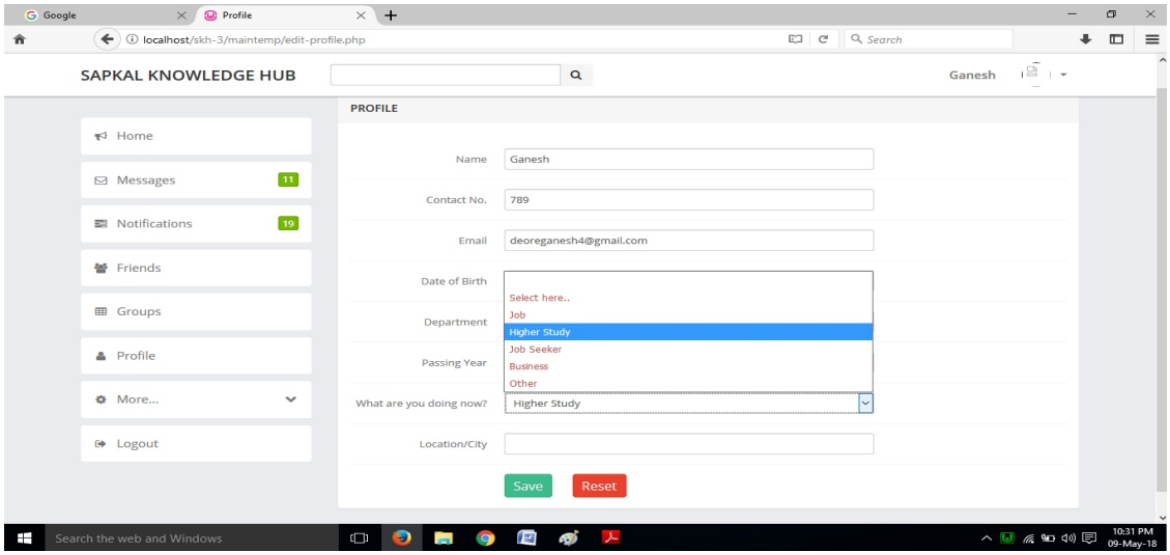
Admin Home Page



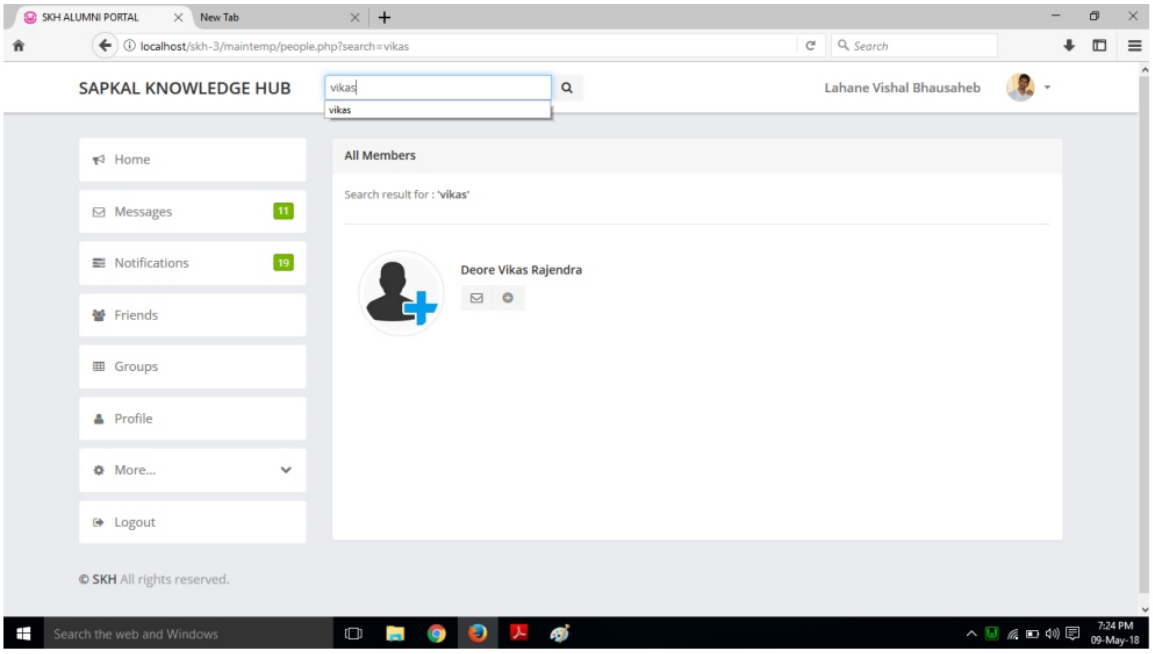
Joined Alumnus



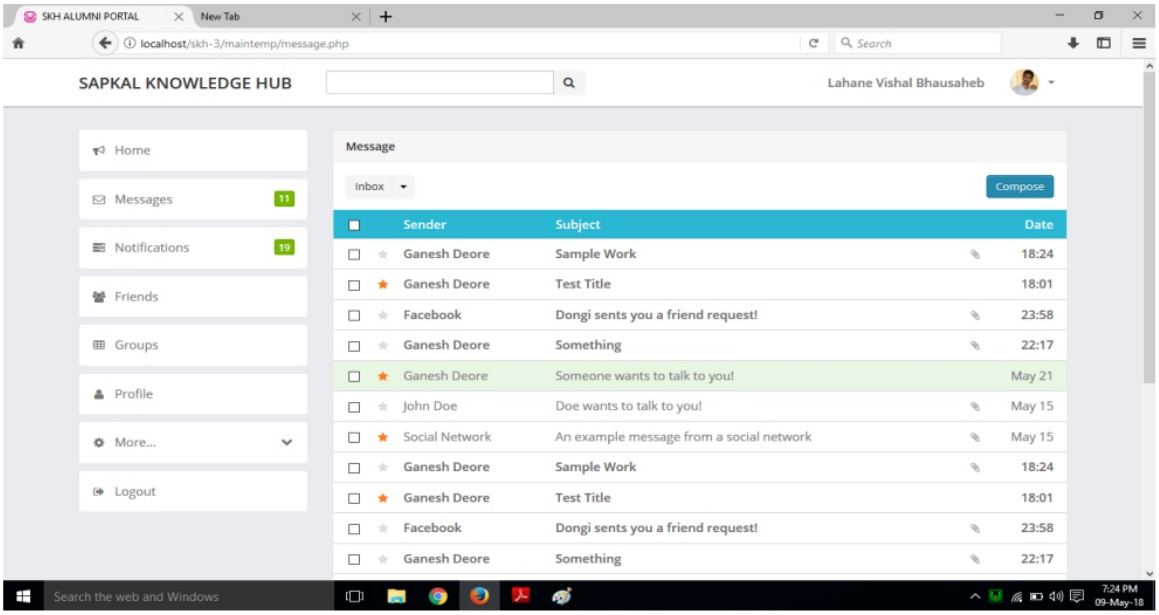
Alumnus Profile Updation Window



Search Window



Message Window



CONCLUSION

This is an important website which creates interaction between current students and ex-students. It shares information as well as knowledge to current students, exstudents and the institute. The main focus of this Alumni portal is to bring exstudents of college together. The main goal of this report is to connect alumni students with the college and existing college students with the help of this web alumni portal.

ACKNOWLEDGEMENTS

It gives us great pleasure in presenting the Research Paper on “Research on Alumni Portal.” I would like to take this opportunity to thank my internal guide Prof. S. S. Shinde for giving me all the help and guidance I needed. I am really grateful to them for their kind support. Their Valuable

suggestions were very helpful for us.

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Web Application Shielding

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A B S T R A C T

In the olden days computer networks were used for sending emails so there was no issue of security but now a days people who are using internet as sharing tool are hacking the financial products like credit cards, debit cards by hacking the pin numbers and passwords and are misusing the accounts. There are several threats for the online applications such as hacking, intrusion and so on. Nowadays, application security is rapidly being recognized as a top priority. The systems store and retrieve knowledge and it'll shield the information from unauthorized users, disclosure, modification or destruction. Systems can make sure that the users have the authority to access the information, load new knowledge, or update existingknowledge. It is a very huge and complex task to provide security for a web application. So to avoid such problems a Web Application Shielding with the help of encryption techniques can be developed. This prevents hackers from exploiting vulnerabilities. This provides a higher level of security.

Keywords: Authentication, Encryption &Decryption

INTRODUCTION

Web application security is that the data Security and it deals with the safety of internet sites, net applications and net services.

Application security includes the measures taken to enhance the safety of an application cherish finding, fixing and preventing security vulnerabilities. Totally different techniques are accustomed surface such security vulnerabilities at different stages of an applications lifecycle such style, development, deployment, upgrade, maintenance. A continuously evolving however mostly consistent set of common security flaws are seen across completely different applications.

Asset

A resource of value such as the data in a database, money in an account, file on the file system or any system resource.

Vulnerability

A weakness or gap in security program that can be exploited by threats to gain unauthorized access to an asset.

Attack (or exploit)

An action taken to harm an asset.

Threat

Anything that can exploit vulnerability and obtain, damage, or destroy an asset.

Common technologies used for identifying application vulnerabilities include

Static Application Security Testing (SAST) is used as a Source Code Analysis tool. The method analyses source code for security vulnerabilities before the launch of an application and is employed to strengthen code. This method produces fewer false positives but requires access to an application's source code.

Dynamic Application Security Testing (DAST) is a technology, that is in a position to search out visible vulnerabilities by feeding a url into an automatic scanner. This methodology is extremely ascendable, simply integrated and fast. DAST's drawbacks consists the necessity for professional configuration and therefore the high chance of false positives and negatives.

Interactive Application Security Testing (IAST) is a resolution that assesses applications from among using code instrumentation this method permits IAST to mix the strengths of SAST and DAST strategies also as providing access to code, hypertext transfer protocol traffic, library data, backend connections and configuration data. Some IAST products require the application to be attacked, while others can be used during normal quality assurance testing.

OBJECTIVE

To create a secure web application

Web application is trending in this digital period of life and its security can be more optimized as well as easy solution for web based issues, thus we create a web application shielding to achieve this.To implement encryption algorithmThe application will be more secure when we provide an option of adding public key cryptosystems such as RSA and Caesar cipher techniques.

To obtain secure information exchange

The information to be exchanged is send privately as cipher text using encryption techniques.

BACKGROUND

The terminologies and technologies used in this project are described as follows:

Access key using PHP

Access key is generated for logging in into the website. It is obtained from the user credentials coded using PHP.

HTML

The Hyper Text Mark-up Language is used to develop the web application for which security is required.

Encryption &Decryption techniques

The data to be transferred must be kept private. It can be done by changing the data into cipher text by using encryption technique and vice versa.

ANALYSIS AND DESIGN

Database Module

The details that are needed for the application are available which include user credentials. The information are fetched for Authentication and key generation.

Key generation Module

Access key and Random keys are generated with the information provided in the database. The access key is used for logging in and random keys are used by the RSA and Caesar cipher public-key cryptosystems.

Login Module

Using the Access key and date of birth one can login to the website. Users are restricted to use the website if the detail does not match with the details in database.

Authentication Module

For authentication purpose unique details of the individuals are used. The further process is carried out only if the verification is completed.

Encryption Module

After verification is done the entered data by user gets encrypted twice with the help of random keys which is stored in the database. The encryption algorithms used are RSA and Caesar cipher public key cryptosystems.

Decryption Module

The cipher text is decrypted into original data using the same algorithm.

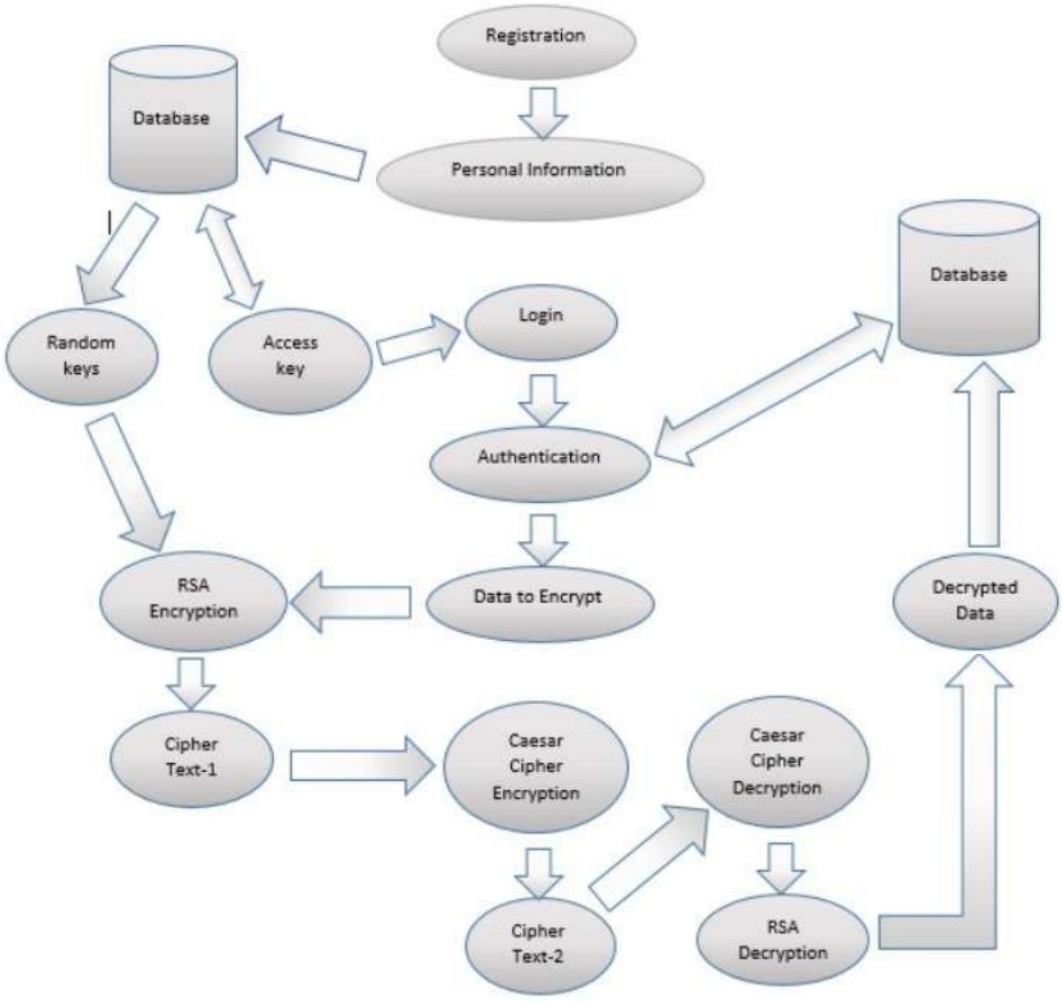

Fig. 1: Architecture

SCREENSHOTS

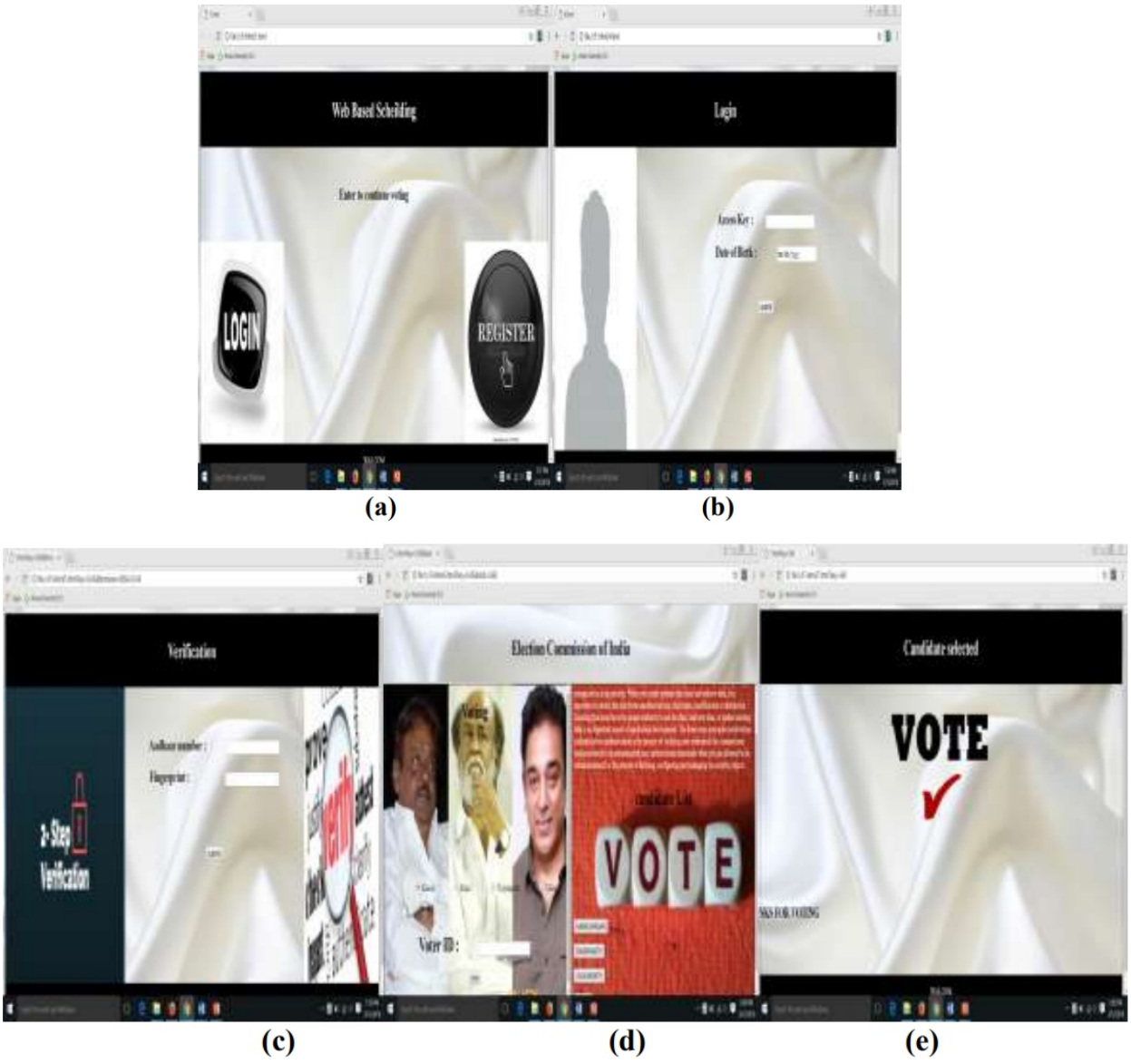

Fig. 2: (a-e): Screenshots

IMPLEMENTATION

Module-1

The user credentials will be stored in the database with the help of registration. The entered details will be used for the key generation.

Module-2

The keys such as Access key and random keys are generated with the help of user credentials. The access key is used for the login purpose and the random keys are used for the encryption algorithms.

Module-3

After login, Verification is done with the help of unique details of the individuals. After the verification gets completed the vote has to be casted.

Module-4

The entered data is encrypted twice with the help of RSA and Caesar cipher public key cryptosystems. The votes are counted then the result is published to the users.

IMPLEMENTAION RESULTS

The user can create this application for the security purposes. This keeps the users confidential data in a secure way than the normal application

FUTURE WORK

This can be used for several security based application. It can be added with several unique details of the individuals.

CONCLUSION

Thus if the application is implemented it can provide a better way of implementing web security. It provides a secure way of using web applications. It givesconfidentiality and protects against intrusions. Authorization can be achieved. We can achieve data Security.

ACKNOWLEDGEMENT

The authors thank the almighty lord, parents and the faculty members of Dr.Sivanthi Aditanar College of Engineering for recognition of paper in presentation and department achievements.

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Smart Home Automation Based on IOT

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ABSTRACT

The IoT technique will be incorporated within the house to create it smarter, safer and automatic. This in the main focuses on building a wise wireless home security system that sends alerts to the owner by exploitation web just in case of any trespass and raises an alarm optionally. This will even be used for automating home by creating use of the sensors. The functioning of every instrumentality differs. So we have a tendency to proposing the system which will alter the house with the utilization of Cloud intelligent Tetris switch and alternative IoT primarily based appliances. For information exchanging and to manage power Tetris switch is employed. Dynamic long module is additionally embedded therein for top performance. The RFID distinctive variety is obtained for every appliance from the manufacturer and web. The interface for shopper users, storage, queries will be extracted from Cloud Home as a Service (HaaS) server. These servers are remote servers placed on web that assist you to manage and method the info while not the necessity of customized computers. The net primarily based servers will be organized to manage and monitor multiple sensors put in at the required location.

Keywords: Cloud, IoT, Smart home, Switch, Sensor.

INTRODUCTION

Even when all the home appliances are connected to the internet and already demand identified on central server, the current state of all the appliances can be monitored remotely. But not all the appliances can be connected to the internet. Most of the equipment's are operated using the mechanical switch. Connection different equipment's with different functioning properties is the tedious problem. To avoid this problem, the most commonly used is the extension cord with manual switches. There are to phases for controlling the devices, I)Switch of extension power cord for power providing, ii) Switch for function activation of appliances' proper connection to the network can also be for by monitoring and controlling the home appliances. The appliances should be turned off when it is not in use. This is done in order to save the power. Turning On and Off the power using wireless signal is difficult because most of the appliances are not equipped with intelligent power module. Different appliances uses different services. So the function commands for each equipment is needed. It is impossible to use the functional parameter's for one appliances for the other. The appliances doesn't respond or reply to the central home server automatically. It is not possible for the central home server to identify each home appliance and execute the function. Hence, identifying different appliances is a tedious task. IoT platform is used to connect all things to internet. Nowadays, IoT technique is used to connect all equipment's to internet. All the powered devices is treated as network devices and exchange the data to the controller. The control server will automatically identify each individual device. But until now there is no such devices. Then the technologies involved are discussed. The proposed system structure of IOT based Smart Home Appliances by using Cloud Intelligent Tetris Switch and the real implementation is presented.

RELATED TECHNOLOGIES

Internet of Things

One of the famous emerging trends includes Internet of things (IoT). By using the device can be connected to the internet to send and receive data [8]. The data can be exchanged through the home network. The device can be identified according to its address of Network interface card and device data. The data is exchanged with each other using sensors. [5]Serial Universal Bus(USB)One of the famous stranded used in information industry is Universal serial bus (USB)[2]. This is used in electronic devices to achieve communication and power supply between main information devices and active plug-in removal devices.

Cloud

Nowadays cloud computing is used in different applications. It can provide huge computing resource based on virtualization technology and resource pool through IaaS, PaaS, SaaS. Users can give the on demand required conditions, such as CPU speed, memory size, storage space, etc., to the cloud platform for specific virtual machine (VM) establishment. Furthermore, by on demand configuration, the organized VM are often speedily used for various users. Every user are often allotted a personal VM. The remote consumer users will use any devices like mobile, Raspberry Pi, pad, laptop, etc., with web affiliation to regulate the VM on cloud. Hence, supported the virtualization technology, the services manager will set up the corresponding VM once for repeatedly used.

EPC RFID

EPC Global is an organization that defines the standard of electric product code (EPC) [1]. Each radio frequency identification (RFID) tag will be assigned a unique identification number (UID) based on the standards. A unique ID (UID) will consist of the EPC manager number, object class number, and the serial number. EPC manager number is used and assigned to a registered company. The object class number is defined by the company. A serial number is used to indicate the individual trade item (object). Hence, each RFID tag with the unique ID can be used to indicate the specific trade item.

PROPOSED SYSTEM

In order to solve the difficulties involved in connecting the data to the internet, we are proposing the system that includes Cloud Intelligent Tetris Switch, Cloud Home as a Service (HaaS) Server, and IOT based Appliances.

Cloud Intelligent Tetris Switch

In addition to the manual operation, users can use their own mobile (via APP) or browser to remotely control each socket. According to the command given by the user each home appliances can be powered on/off remotely. For doing this the modelshould be connected to the internet. For communication between the cloud and switch there are many communication devices are available like Bluetooth, ZigBee, Wi-Fi module. Thus by this the communication and data interchange is achieved. However there are various places in the house and thus various appliances present. Considering these factors the real time implementation is much difficult. Thus the number of sockets is increased to nine from three. The direction of the switch extension can also be different. Hence, by using one Cloud Intelligent Tetris Switch, the extension of the sockets can still be controlled by the remote server. Locating and identifying each Cloud Intelligent Tetris Switch is needed. Then, the HaaS server can send the command to the corresponding (correct) home appliances according to the added location (room) information.

IOT based Appliance

To identify every appliance for more management is very important for consumer users. However,

most home appliances don't equip the USB or Wi-Fi affiliation nowadays. Hence, extra identification methodology for home appliances is needed. Suppose that everyone the house appliances equip the electronic product code (EPC), like code, QR code, or RFID tag.

Circuit diagram:

The figure shows the overall structure of the proposed system. The sensors, switches and various other modules are connected and it can be used to automate the home appliances via remote devices or by users.

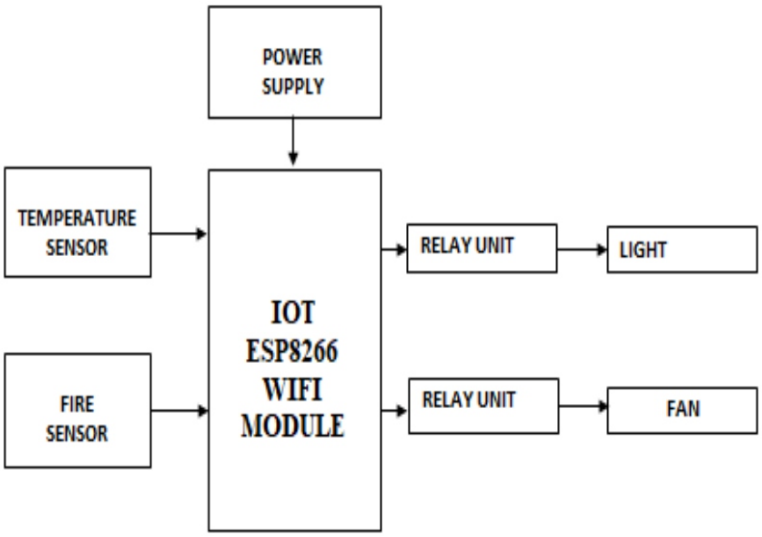

Fig. 1: Circuit diagram

The home appliances are often known on an individual basis by exploitation extra socket structure with RFID reader or scanner. In different words, almost like EPCIS and EPC network, supported the obtained identification data of the house appliance, the remote home server will question the corresponding device description information from the web and manufacture. Then, even the house appliances nowadays are often controlled in step with the corresponding functions.

Cloud Home as a Service (HaaS) Server

Similar to the EPCIS and EPC network, the server will acquire the corresponding operate data of individual appliance via the electrical product code. Additionally, since the HaaS server can influence the management of individual appliance, to determine a freelance server for every house are going to be required. During this analysis, the HaaS server is enforced because the service of the virtual machine (VM). Hence, the managers deploy the VMs for different houses with the same IOT based smart home appliance service. In other words, via account and password, different users can login to the corresponding VM for their own appliances control and management. Moreover, the IOT based smart home appliances and the cloud intelligent tetris switch can register in the database of each Cloud Home as a Service (HaaS) VM. Hence, even the same type of home appliances located in different houses can be identified according to the registration in individual database of Cloud Home as aService (HaaS) VM. Therefore, each user can only control the home appliances which are registered in the corresponding Cloud Home as a Service (HaaS) VM. The security can be maintained.

IMPLEMENTATION

This can dynamically controlled and the appliances can be managed and turned on/off by the cloud intelligent Tetris switch.

CONCLUSION

In this paper, the house appliances with IoT embedded system are often managed and controlled remotely supported cloud intelligent tetris switch, cloud home as a survive server. The intelligent tetris switch are often dynamically extended completely different| functions and locations and too different direction. By victimisation remote cloud server the extension of switch or sockets are often controlled. Even the opposite functions are often controlled by IoT.

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9. J.S. Rellermeyer, M. Duller, and G. Alonso, "Engineering the Cloud from Software Modules," ICSE Workshop on Software Engineering Challenges of Cloud Computing, pp. 32-37, 2009.module and switch. Hence, the life at home can be smart and intelligent.

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Classification of articles is a duty of the editorial staff and is of special importance. Referees and the members of the editorial staff, or section editors, can propose a category, but the editor-in-chief has the sole responsibility for their classification. Journal articles are classified as follows:

Scientific articles:

1. Original scientific paper (giving the previously unpublished results of the author's own research based on management methods).

2. Survey paper (giving an original, detailed and critical view of a research problem or an area to which the author has made a contribution visible through his self-citation);

3. Short or preliminary communication (original management paper of full format but of a smaller extent or of a preliminary character);

4. Scientific critique or forum (discussion on a particular scientific topic, based exclusively on management argumentation) and commentaries. Exceptionally, in particular areas, a scientific paper in the Journal can be in a form of a monograph or a critical edition of scientific data (historical, archival, lexicographic, bibliographic, data survey, etc.) which were unknown or hardly accessible for scientific research.

Professional articles:

1. Professional paper (contribution offering experience useful for improvement of professional practice but not necessarily based on scientific methods);
2. Informative contribution (editorial, commentary, etc.);
3. Review (of a book, software, case study, scientific event, etc.)

Language

The article should be in English. The grammar and style of the article should be of good quality. The systematized text should be without abbreviations (except standard ones). All measurements must be in SI units. The sequence of formulae is denoted in Arabic numerals in parentheses on the right-hand side.

Abstract and Summary

An abstract is a concise informative presentation of the article content for fast and accurate Evaluation of its relevance. It is both in the Editorial Office's and the author's best interest for an abstract to contain terms often used for indexing and article search. The abstract describes the purpose of the study and the methods, outlines the findings and state the conclusions. A 100- to 250- Word abstract should be placed between the title and the keywords with the body text to follow. Besides an abstract are advised to have a summary in English, at the end of the article, after the Reference list. The summary should be structured and long up to 1/10 of the article length (it is more extensive than the abstract).

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Keywords are terms or phrases showing adequately the article content for indexing and search purposes. They should be allocated heaving in mind widely accepted international sources (index, dictionary or thesaurus), such as the Web of Science keyword list for science in general. The higher their usage frequency is the better. Up to 10 keywords immediately follow the abstract and the summary, in respective languages.

Acknowledgements

The name and the number of the project or programmed within which the article was realized is given in a separate note at the bottom of the first page together with the name of the institution which financially supported the project or programmed.

Tables and Illustrations

All the captions should be in the original language as well as in English, together with the texts in illustrations if possible. Tables are typed in the same style as the text and are denoted by numerals at the top. Photographs and drawings, placed appropriately in the text, should be clear, precise and suitable for reproduction. Drawings should be created in Word or Corel.

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Citation in the text must be uniform. When citing references in the text, use the reference number set in square brackets from the Reference list at the end of the article.

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Footnotes are given at the bottom of the page with the text they refer to. They can contain less relevant details, additional explanations or used sources (e.g. scientific material, manuals). They cannot replace the cited literature.
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