UNIVERSITY INSTITUTE OF COMPUTING

DIVISION- MCA

A Project Report

On

Virtual Office Management System

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UNIVERSITY INSTITUTE OF COMPUTING

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TITLE

VIRTUAL OFFICE MANAGEMENT SYSTEM

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Introduction

Virtual workplace has become popular and effectiv management system for technologybased low-cost office management system. The process of creation of low cost and effective Virtual office management system has been showing in this research. This virtual workplace system is a new way of working that enables the virtual worker to work outside the walls of the traditional office. In this system, all the important functions of an organization are not necessarily geographically centered in one office. Finally, the system was applied to producting, and service operations. The results show that from the view point of decision making, product design, production planning, control to marketing they were able to save their time their money and found the operation management easier.

Today, virtual office business has become growing in major cities of the world. Now a days, every major city, specially the capitals of each country, has doing this business. In very shortly, the numbers of users of virtual working services is growing fastly. It is leading to the need for implementations of standard operating procedures and work effectiveness in the virtual office is also developed. There are so many problems that rises due to lack of discipline in procedures and the slow performance of virtual management work. Finding the missing documents, preparing schedules for the use of meeting rooms, until a thorough viwed by the authorities regarding serious crimes committed by virtual office customers are some examples of problems that have happened. To growing the work effective, virtual office management really needs an information technologybased application that become a backbone of business process and storing important information for all customers. In this study review that how to improve virtual working management performance through the use of information technology. Virtual workplace management is technologicalbased application that is the needs of virtual working management growing in world wide.

OBJECTS OF THE PROJECT

1. Instant professional business address

An instant business address is a convenient and cost-effective solution for business owners who wish to professionalise their business or expand their presence in other locations.

It creates synchronicity between all parts of their business and can be used for client and colleague correspondence, company documents, business cards and online listings.

Multiple business addresses can be purchased to expand your presence in more than 900 cities and attract more clients at the fraction of the cost of setting up an independent office. This is attractive to clients looking for services that operate in certain areas, because of local amenities or transport links.

2. On-demand meeting room access

A virtual office gives you access to meeting spaces, conference rooms, and creative breakout rooms for face-to-face meetings or video conferencing. These can be booked on the day for as long as you need with just a few clicks on our mobile app.

The working day can be hectic from start to finish, and the last thing you want is to waste time or keep clients waiting. These bookings can be the ideal solution if you're in a pinch.

3. Call and mail handling

With our Virtual Office package, you can choose a regional or national business phone number and set up pay-as-you-use or unlimited calls, depending on your work style.

With our telephone answering service, we can take the pressure out of call answering and do it for you. You get a dedicated local telephone number, answered in your company name by our professional staff. You can choose how we direct your call: we can put it through to your mobile or divert it to voicemail if you're busy.

When the post arrives, we will hold it at reception and forward it on a daily, weekly, or monthly basis to your personal mailing address. Any urgent letters can be opened and scanned, and the contents emailed to you if required.

4. Business services for your peace of mind

As well as virtual assistants on hand to help you throughout the day, you can also benefit from essential business services such as high-speed Wi-Fi, printing and scanning, a 24/7 reception team, and coffee bars to use when you need a break. All of this is available to you as and when you need it, all on a flexible contract shaped around you.

5. Access to locations all around the city

A popular feature that is included in many of our packages is access to multiple locations. For people that travel frequently for work, and are never in the same place for too long, having access to hot desks or a Business Lounge is imperative.

PROJECT DETAILS

Technology used:

In this project we use **Microsoft Visual Studio** 2010 in front-end-developing.

And in backend developing, we use **MySQL** and **.Net framework** for dynamically database designing.

Hardware requirement:

- ➢ Processor – Intel dual-core or above
- ➢ Processor speed – 1.0 GZ or above
- ➢ Ram – 1GB RAM or above
- ➢ Hard disk – 20GB of hard disk

Software requirement:

- ➢ Language – Microsoft Visual Studio 2010
- ➢ Database – Microsoft SQL server 2008

Future scope of this project:

- ➢ Reduction of paper work
- ➢ Human initiative or manual labour may be significantly minimized.
- ➢ Large operation that are conducted manually can be completed in a matter of seconds.
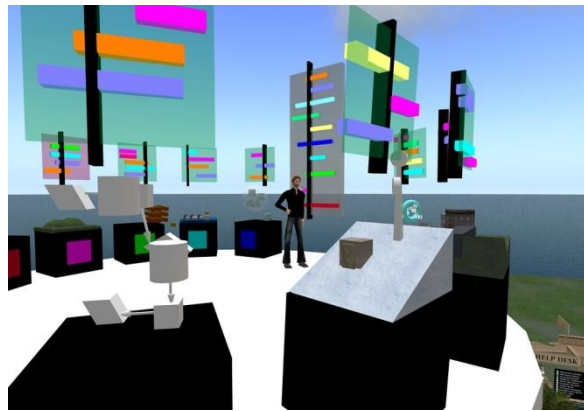
Fig 1

OBJECTIVES ACHIEVED

- To gain better productivity its works on a structural procedure. It divides the workload and also binds each group with time limits so that the work is finished before the deadline.
- To be much more organizational, unlike the old traditional approach. For holding a meeting during previous times every employee needed to informed by paperwork but now as this system works in an incremental coding function every employee gets notification at the same time in their respective logged in account.
- Everyday data uploading by the employees makes the organization work in a more synchronizing way. It also helps the higher-ups to fetch and collect records in a more efficient manner.
- To avoid illicit behaviour inside the organisation. As everything is in online so there is less chance for data confiscating by other employees.
- To give promotions and salary increment only on the basis of their work and merit, not on the recommendation.
- Also to provide and organize training camps for the employees to boost their knowledge and skill when it is needed.

METHODOLOGY

Methodology of Virtual office business has a unique characteristic, their sales transactions are more likely to business to customer type. Most of the transactions are fully paid, except for Business Identity Plan Agreement service because it takes time about 1 month to be delivered. For Business and intellectual property authority, the payment is divided into 2 ways, the down payment, and the rest of payment. Therefore, in this business is very easy to manage. About the business methods, all the services in this business is totally progress work so that company don't need to hire high skill labor. Lots of businesses which the frequency of requesting documents and other virtual office services is very high. As a result, this business become labor intensive along with rising demand for services. The reason of high demand from customers, the dependency of online application to used by the virtual office company become very high. The process of delivering customer request will be very fast by virtually.
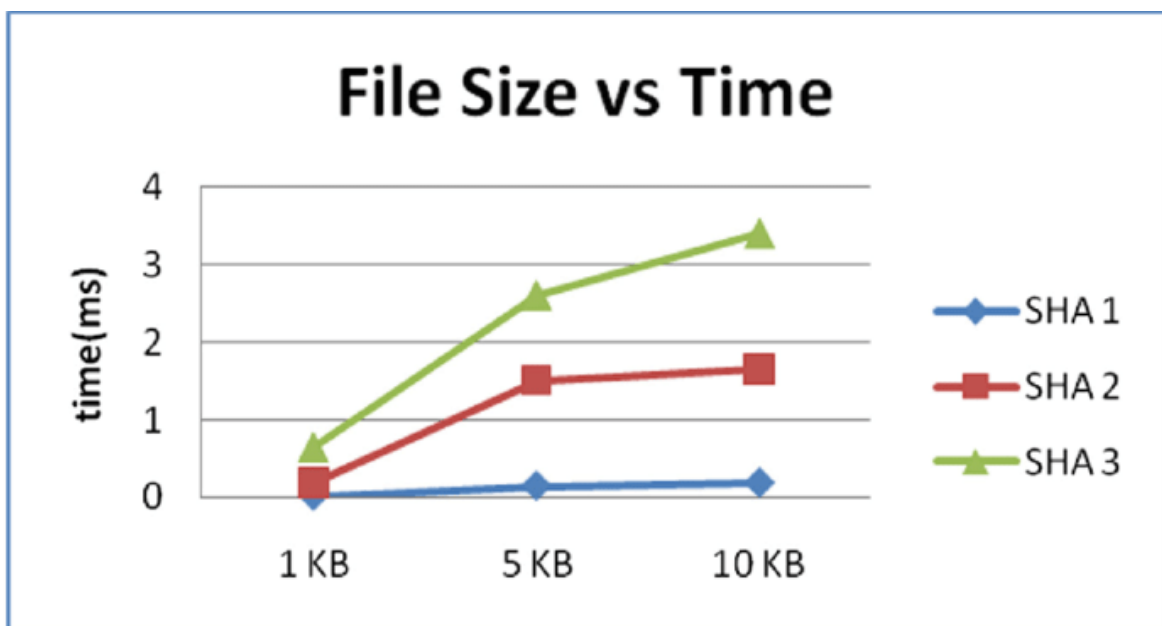
Fig 2

FEASIBILITY STUDY

Virtual workplace has become a well liked and desired office management system for technology-based low-price office workplace. A method of creating and implement aneffective Virtual workplace management system has been showing in this research. The virtual workplace management system is a new way of working that enables the virtual worker to work outside the walls of the traditional office. In the system all the official functions of an organization are not necessarily geographically centered in one office. Finally, the system was used to production and service operations. The final reports is that from the main point of decision making, product designing, production planning, control to marketing all were able to save their time their money and found the operation management easier.

In this project we have a tendency to tried to point out the essential and technology that how the virtual workplace management system works and employees gets the benefits from here. This project showing an advantages of the virtual office operators in over world. With these, there are many benefits that can be happened such as effective business methods or reduce the quantity of staffs. The profits of virtual offices:

Helps to manage document very effectively

Detailed log of activities at reception

Detail record of the validity amount of client instruments.

Automatic reminder to the customer's email for the extension of the amount.

virtual workplace subscription can be done via on-line.

Automatic verification of economic transactions

## DATA FLOW DIAGRAM:

ZERO LEVEL DFD:

This is zero level dfd of office management system, where we discussed the high level of process of office. It is a basic overview of the management system being analysed. It is designed to be an at a glance view of attendance, time entries and login showing the system as a high-level of processing, with its relation to the external entity of office, employees and resourses. It should be easily understood by wide public including offices, resources in it.
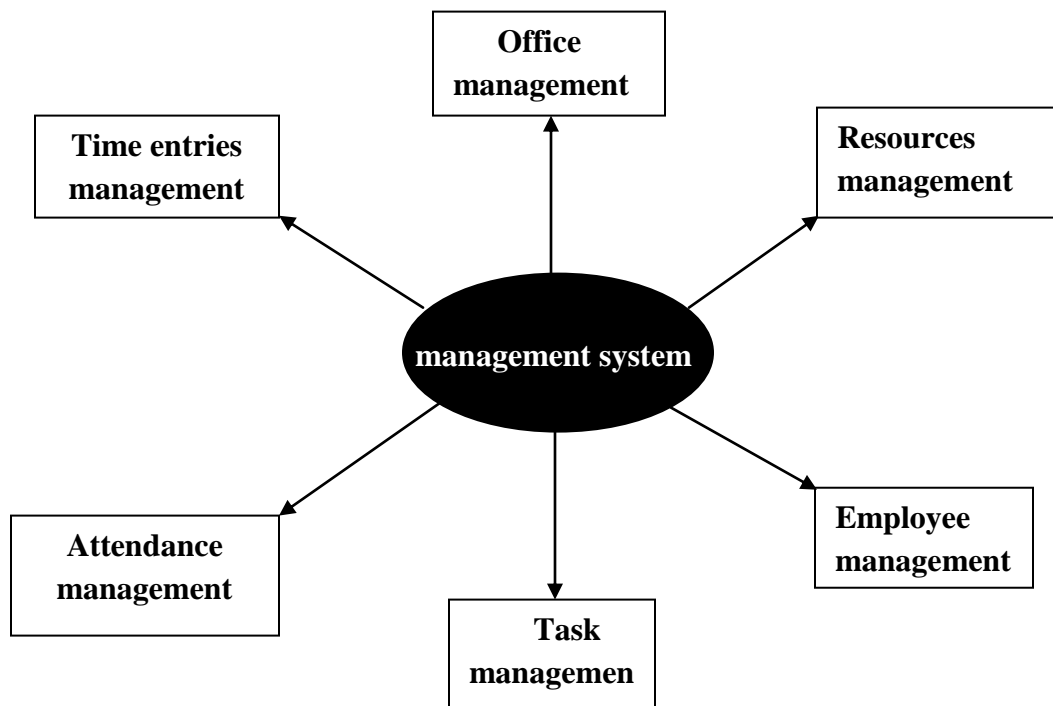

Fig 3

FIRST LEVEL DFD:

In first-level dfd, we tries to shows how the systems divided into sub-systems each of which connect with one or more data flow and together provides all the functionality of management system. It also identifies external data stores i.e. Login, Time management, Attendance, Tasks and Resources that must be present in office management.
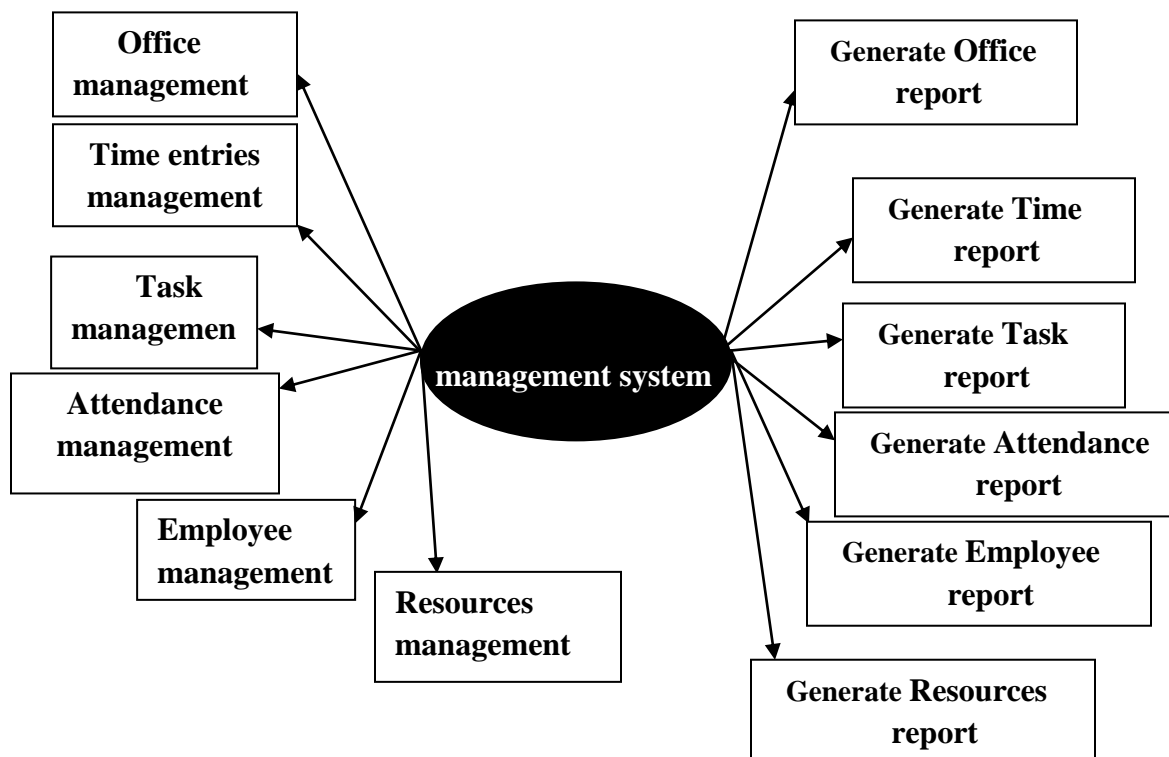
Fig 4

SECOND-LEVEL DFD:

It goes 1 step deeper from level1 office. It may requires more functionalities of office to reach necessary leble of details about office function.
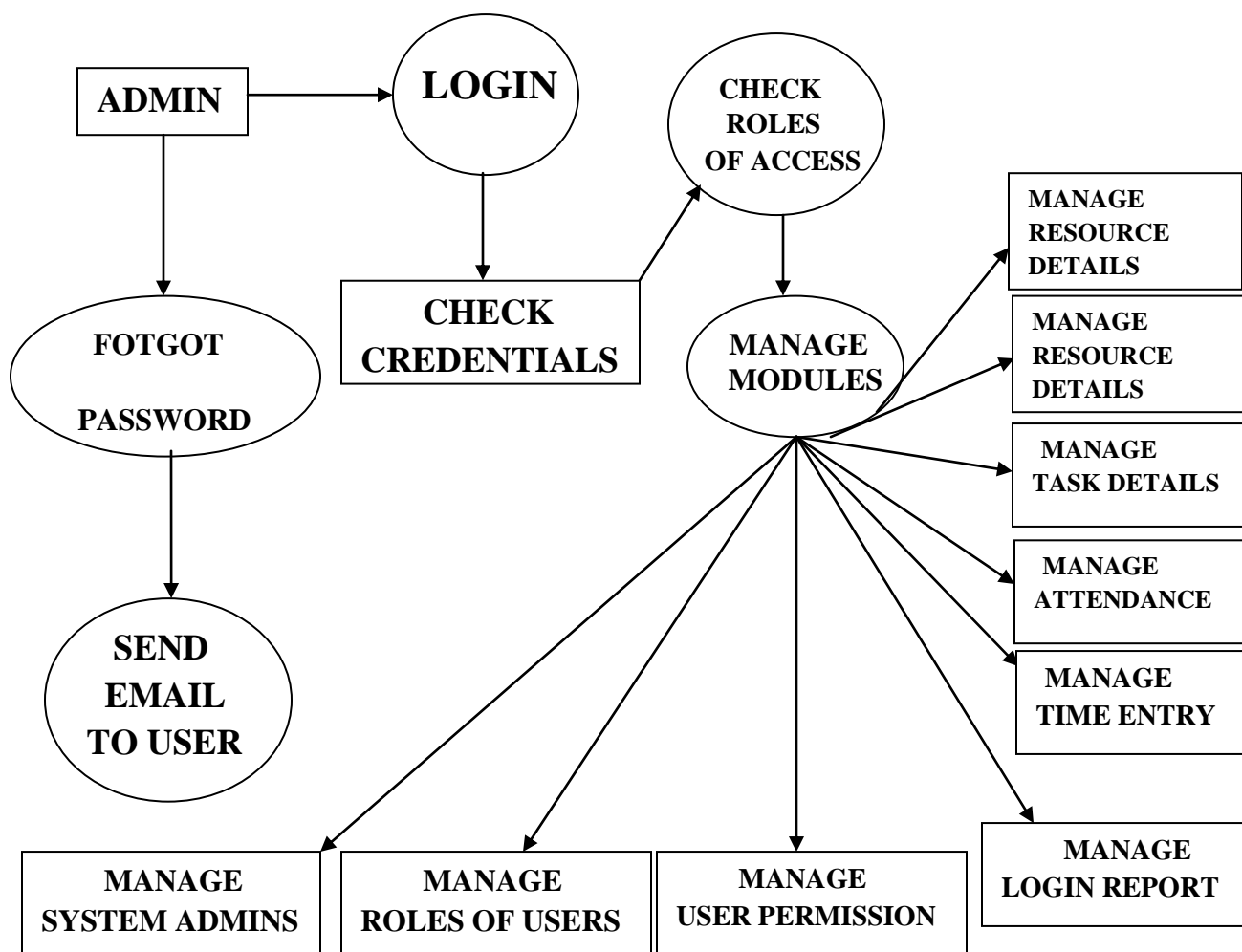

Fig 5

Planning and Requirement Gathering:

As our web app will be platform-independent and highly secure with a very simple and easy-to-use user interface by which every user can transfer files to any other user in a very efficient and secure manner, that's why we are using latest technology and api's for data transfer so that the users will be very sure, where the data of them is going.

And they have all the control over the entire process. We are not going to store the data of the end user so that the privacy of the user will stay as it is.

We just need ASP.NET framework, MYSQL, and rest API, and all these software are open source that's why we can easily get them.
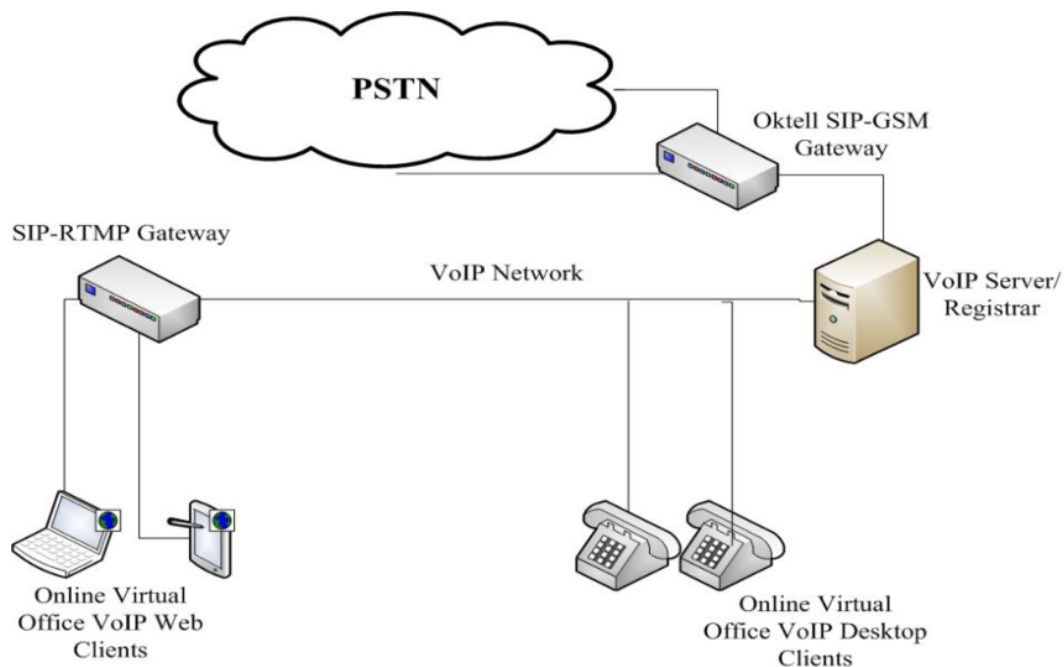
Fig 6

Working Timeline:

Task	Estimate Start Date	Estimate Finish Date	Description	Estimate Duration
Project Proposal	22-08-2021	25-08-2021	Working and submission of project proposal	2 DAYS
Project Report-1	26-08-2021	20-09-2021	Brief case study on the topic and implementation	20 DAYS
Project Report-2	29-09-2021	07-10-2021	Total case study on the topic and implementation	10 DAYS

ER DIAGRAMS

This ER(Entity Relationship) diagram represents the model of office management system entity. The ER-relationship diagram of office management system shows all the visual instruments of database tables and the relation between employees, tasks, offices, time entries etc. It used structured data and to define the relationship between structured data groups of office management system functionalities. The main entities of the office management system are offices, employees, resources, tasks, attendance and entries.

- ❖ **Office Entity** : Attributes of Offices are office_id, office_company_id, office_employee_id, office_name, office_place, office_type, office_address
- ❖ **Employees Entity** : Attributes of Employees are employee_id, employee_name, employee_mobile, employee_email, employee_username, employee_password, employee_addresS
- ❖ **Resources Entity** : Attributes of Resources are resource_id, resource_employee_id, resource_name, resource_type, resource_description
- ❖ **Tasks Entity** : Attributes of Tasks are task_id, task_employee_id, task_name, task_type, task_description
- ❖ **Attendance Entity** : Attributes of Attendance are attendance_id, attendance_employee_id, attendance_type, attendance_description
- ❖ **Time Entries Entity** : Attributes of Time Entries are time_entry_id, time_entry_employee_id, time_entry_type, time_entry_description
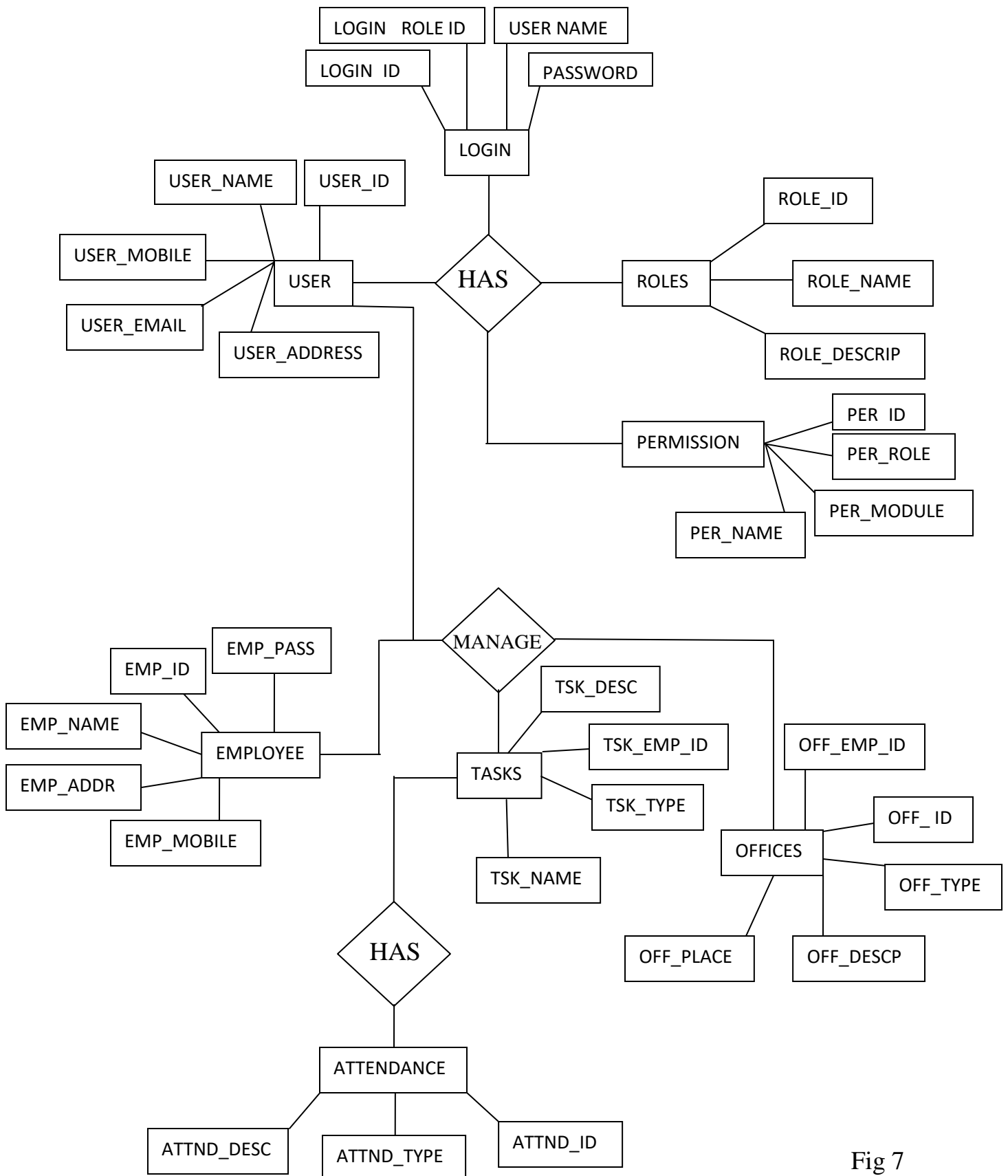
Fig 7

Modules developed and their description

System design software built in the project is a web application. Every other web application, it operates with protocols such as HTTP, TCP, and was built using HTML which is the basic language used in building web-based applications and web pages. Block diagram of a common web design technique.

Front end design

The front end of the web application was built using HTML and other client-side scripting languages. Just like every other web application, HTML was used to provide the basic information that users require to interact with the web application. It is with such information that the web users know what is required of them at different stages while navigating through the web pages of the webbased application. HTML was used to build the front end GUI for the application, which is the interactive portion of the site that users communicate with for one desired access feature or the other. When users are required to provide certain data, they do so using HTML as a guide regardless of what language format they feed into available fields on the application's web page. Another important aspect of the front end is the style sheet used. Style sheets are used to achieve certain desired features on front-end webpages. Such features include systematic arrangements of content, font types and sizes, page colour, font colour, etc.
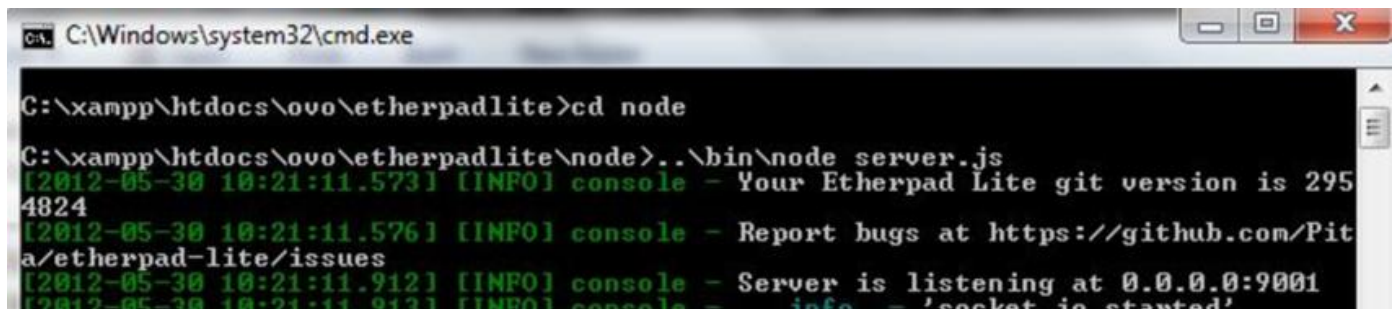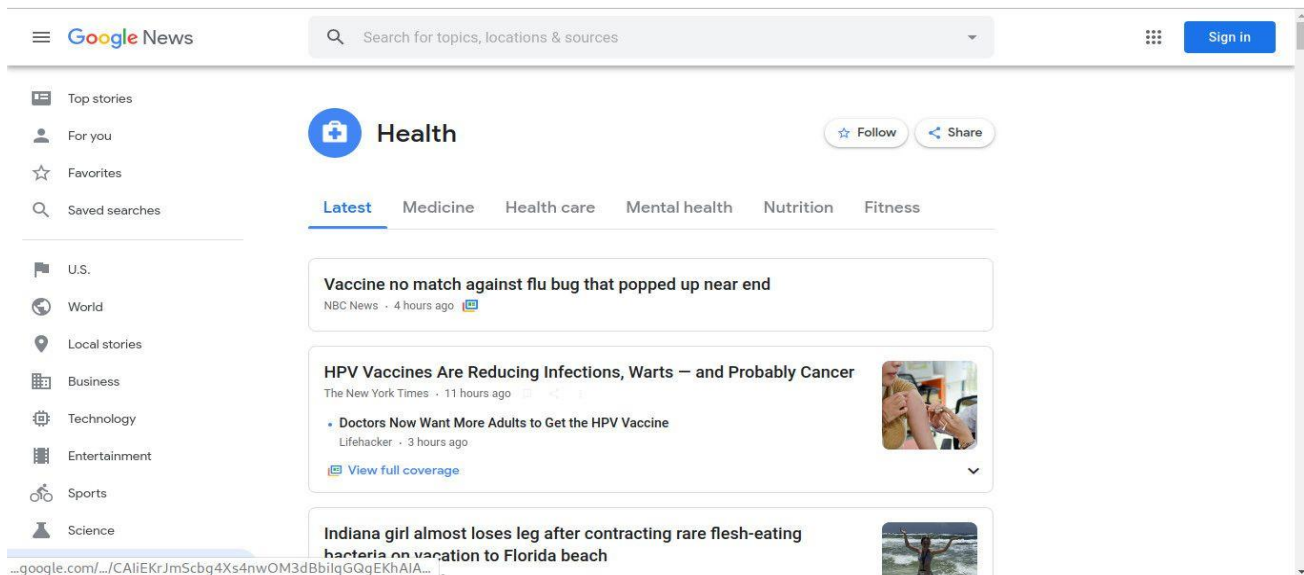

Fig 8

Html i-frames

Another major aspect of the design of the protocol is HTML I-frames. A HTML I-frame, which can also be called "Internal Frame" is a HTML front end web design tag or tools that is used to allow a web browser window to be shared into several portions thereby allowing the possibility of viewing different web-sites or web content, either from the local site or externally, at the same time dependent on the availability of these sites at that point in time also. Since the development of this project gives liberty to use several facility the possibility of embedding other hosted objects or sites that provide some of the features required by the web application can be done in several ways, a few of which include using objects, applets, as well as Iframes. The word embed here still refers to the same intention of an I-frame which is to load internal or external content using a web page and making it look like it was a part of the web page. Such content that can be embedded into web pages include pictures, data macromedia flash documents, etc.

Back end design

In this project, the components of the back end design are the server-side script and the relational database. MySQL, which is an open source relational database management system was used. Since the OVO is a free and open source web-application that requires a database management system with full features, MySQL suits such needs as it is appropriate for applications that require a rapid structuring and storage databases, as well as being able to manipulate stored data with ease. Basic web applications require a GUI and a relational database for their operation but in every case, a server-side script is required to relate the database with the front end of the web application. This is a major requirement for the web application to render their functions completely as it enables a form of interaction with the front end and the database.

(Fig 9) (fig 10)

Testing strategy used & description of test cases and use cases

While developing the web application, tests were carried out. Some of the tests were carried out to verify how user friendly the system was, bandwidth intensiveness of some features of the web application, the response rate of some of the features portrayed by the web application, etc. A few of these tests were carried out in a classroom session to verify how viable the video conferencing feature of the web application is

System Effectiveness Test

Parameter	Strongly Agree	Agree	Disagree	Strongly Disagree
I Was Able To Complete My Task Successfully And Correctly Using The Application	5%	45%	27%	23%
The System Did Not Show Error Message(s) While Using It	10%	60%	10%	20%
I Was Able To Recover From My Mistakes Easily	5%	50%	23%	22%
I Feel Comfortable Using The Application	10%	55%	15%	20%
The Voice Request/Response From The System Was Clear	0%	9%	50%	41%

User Satisfaction Test

Parameter	Strongly Agree	Agree	Disagree	Strongly Disagree
The System Was Easy To Learn	14%	71%	4%	11%
The System Was Easy To Use And Is User Friendly	14%	68%	7%	11%
I Am Satisfied Using The System	4%	50%	31%	15%
I Feel The System Met My Need	4%	44%	36%	20%
I Am Satisfied With The Performance Of The System In Accomplishing My Tasks	0%	40%	36%	20%

System Efficiency Test

Parameter	Strongly Agree	Agree	Disagree	Strongly Disagree
Using The System Saves Me Time Of Learning	7%	32%	36%	28%
I Was Able To Complete My Task On Time	7%	54%	21%	21%
I Was Able To Navigate The VUI On Time When Using The System	7%	33%	40%	20%
I Didn't Have To Carry Out Too Many Difficult Steps Before Completing My Tasks	14%	61%	4%	21%
I Am Satisfied With The Performance Of The System In Accomplishing My Tasks	0%	43%	25%	32%

Fig 11

VIRTUAL OFFICE MANAGEMENT SYSTEM

HOME   ABOUT US   CONTACT US

| Welcome
| View News
| View Allote Work
| View Address Book
| Mail Editor
| Log Out

View News

welcome.aspx
Mail Editor

Show Address Book

View Assign Work

VIRTUAL OFFICE MANAGEMENT SYSTEM

HOME   ABOUT US   CONTACT US

| Welcome
| Change Password
| Employee Registration
| Allote Password
| Add News
| News Editor
| Mail Editor
| Work Assign
| Show Assign Work
| Log Out

Change Password   Employee Registration   Allote Password   Search Employee

Add News   News Editor   Mail Editor

Work Assign   Add Address Book   Show Address Book   Show Assign Work

Fig 12

Fig 13

Fig 14

Fig 15

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