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REPORT

SIMPLE PIC



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Database Management System

20s15006

BIT 2

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Here I would like to thank for everyone who gave me a good chance and a good opportunity to explore new things and I came to know so many unknown things and I gained a better, good sound knowledge about what are the processes of developing a new system by using new strategies and I will also be thankful for my colleagues who gave me some better information about how to develop a system and I really want to be thankful for our supervisor professor Priyan.

Abstract

One of the main results of implementing this kind of system is to encourage people to keep their soundings clear as well as protected and those who love the environment can express their expressions into the world as nature lover and show the best ways for doing that process with the experience of theirs and they will come to know about what are the future processes that are taken by the nature protecting societies our clients also can add their ideas on those projects. Our system has a weekly updating cycle to mention or to notice that what are the drastic outcomes of environment which really impact or threaten for human beings like us by acting inappropriate way, indigenous people those who live in the forests as well as for the animal. Wildlife is also playing a major part in this equilibrium of the environment. There are unique plats that can be found in only their countries. Those are not spread around the world. In Sri Lanka there most of them. About 1025 vascular plant species are confined to Sri Lanka. Bur here, our system not only focuses at Sri Lanka, we focuses around the world. Most of the environment pollution is done by human beings except indigenous people, they don't destroy the forests, what they do is they try to protect that. Here we provide a good platform to the clients to set a campaign to clear the polluted soundings, to do other environmental activities and this helps to develop a good relationship with each other as well and to practice some good norms. Our system has a rewarding component too. Reason of awarding money prices to the client is to encourage their tasks, at the end of every year and environment day we have a big ceremony and we have trophies awarding ceremony as a part of appreciating the contributors for the campaigns those who active in the communities and show their higher participation.

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Chapter 1 - Introduction

1.1 Major goals and objectives

The main goal of the system is, this system through we try to make a big network which consisted from environment lovers around the world. Day-by-day we try to spend our community to make a strong and a big network. We expect to get 3.5 Billion traffic at the end this year from around the world for this platform and we also to expect to plant new trees with help of our clients and volunteers to the deforested environment and burnt forests with wildfire. With the help of some environmental specialists, we also so try to implement an environmentally friendly better solution to avoid the spreading of the wildfire before it destroys the lungs of the world as it gives the oxygen to breath.

1.2 Motivation

According to our research the best way to motivate the people to tend a task to do is by rewarding something to appreciate their work and encourage them. Specially by rewarding some money or rewards. This system through we tend people to reduce the environment pollution by rewarding some money price and additional prices for posting quality photos of doing some environment protections related activities and those who get high views, likes and shares are also provided with some additional prices to keep motivating the clients to do so. Here we provide a good opportunity for the nature lovers to give their contribution for the environment specialist to make the future planes and get advised.

1.3 The scope of the completed project

We have a good responsive site for both web (web application) and phones (also available in i phones). We have also developed an application software for both android and ISO users. Name of the application software is “Simple pic”. You can download that from google play store or apple store for free of charge and it only takes few capacity from your memory. Without installing the desktop or the phone application, clients also can interact with that with the help of web application. Installed applications are provide with updates.

1.4 WBS (Work Breakdown Structure)

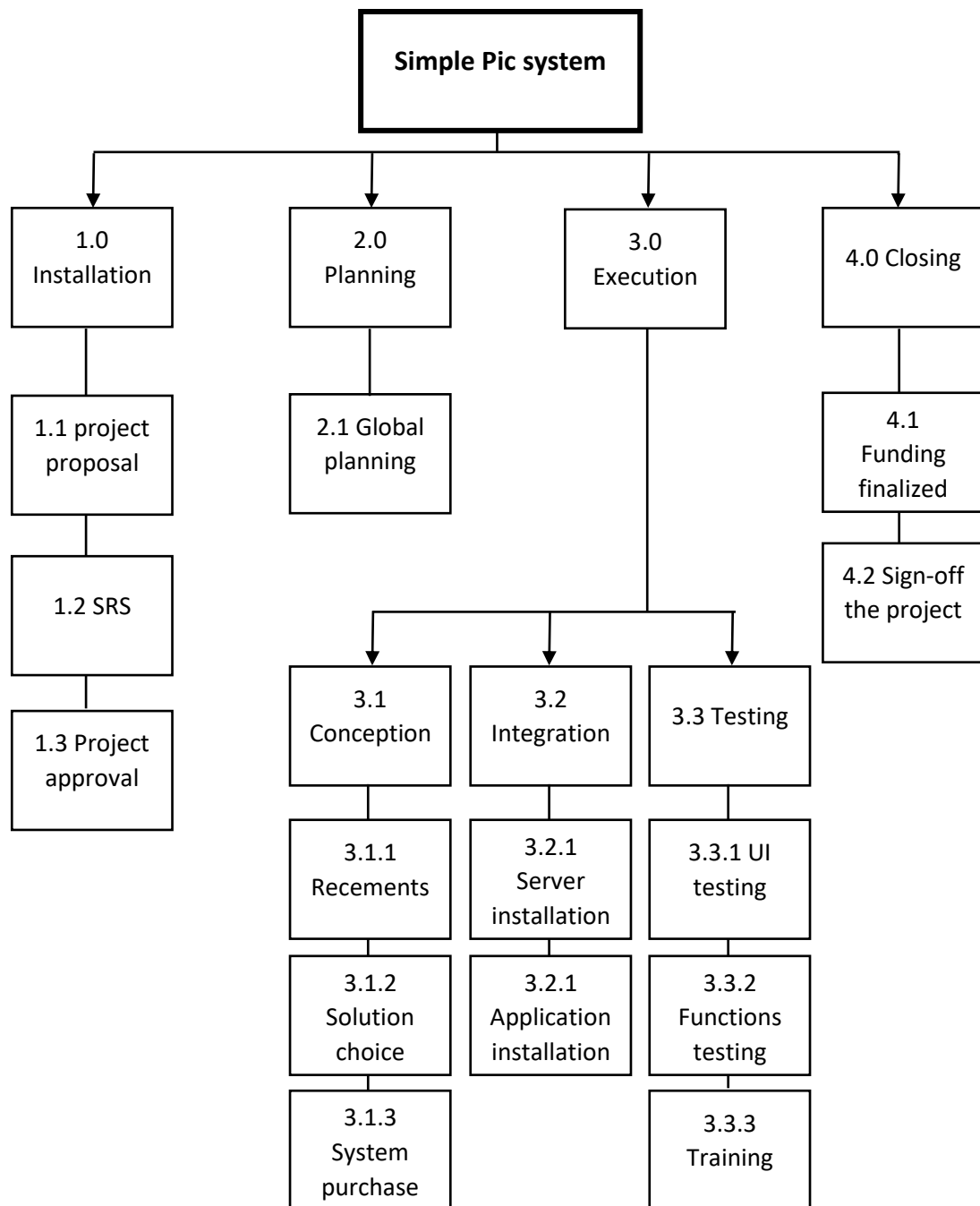


Figure 1.1 WBS

1.5 The approach and assumptions while carrying out the project work

These are the assumptions that we made before the development get started.

Recourses

- End users will be available for testing during the time they agree to.
- Training rooms will be available at the training center as needed.

Delivery

- Project servers arrive configured as expected.
- Correct number of handheld devices will come on target delivery date with no delays.

Budget - **Total estimated cost for the project**

- Project costs will stay the same as the budget was made initially.
- Training will be done internally with no additional training costs incurred.

Finance - **funding to complete the project**

- Funding for licenses will be provided by various departments as needed.

Methodology – **the approach of completing the project**

- Waterfall methodology will be followed.
- Expect the team contribution.

Technology - **this could cover software development, platforms, environments, networks, firewalls, bandwidth**

- Team will use HTML, CSS, JS and PHP.
- The solution will use the existing test environment.

1.6 Concise summary of major outcomes

- Protect the nature and wildlife in the world
- Protect indigenous people
- Generate new ideas to protect the environment
- Create new committees
- Decrease the nature pollution at least by 10%
- Avoid deforestation
- Avoid wildfire
- Build a new nature loving generation

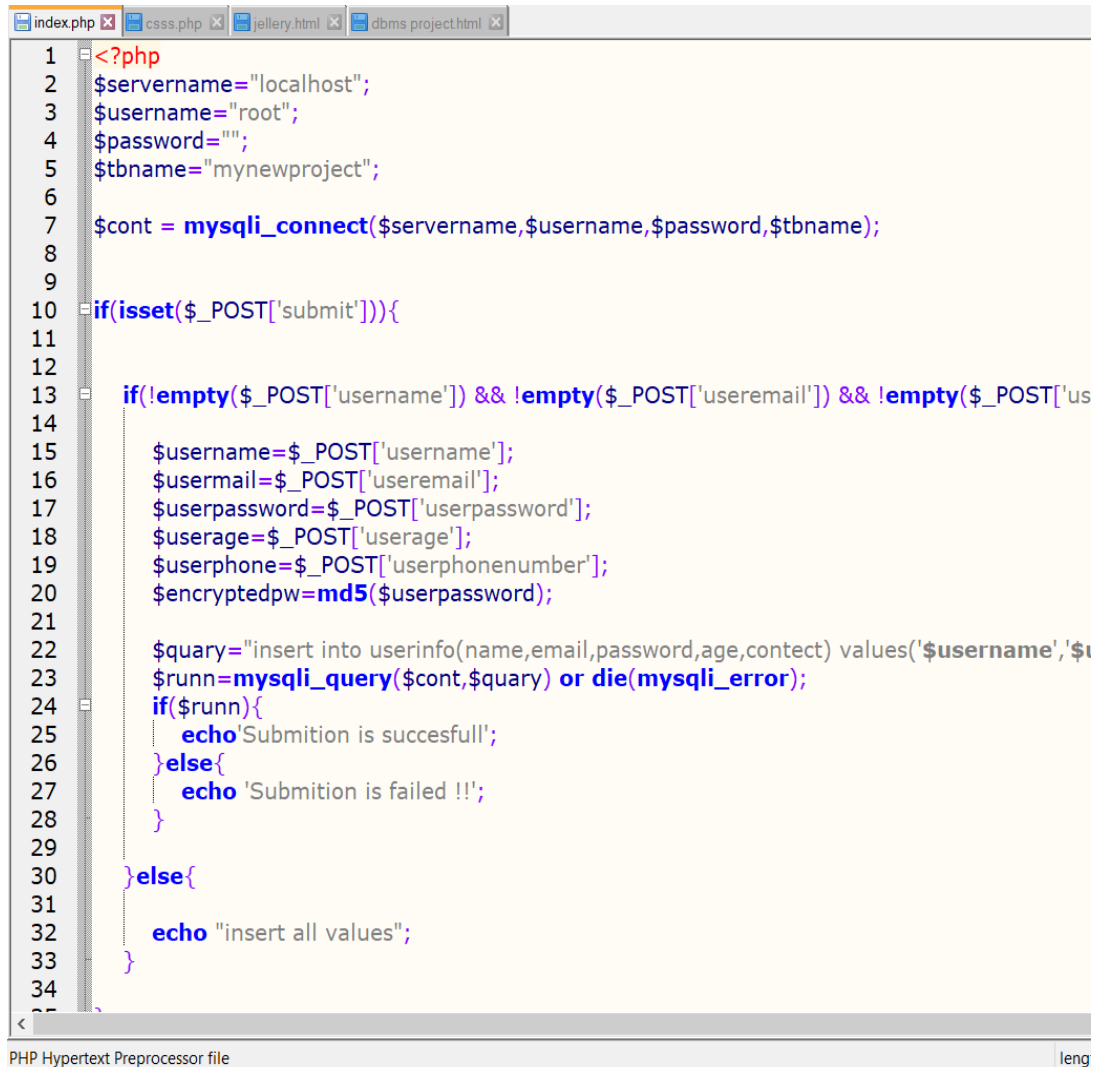
Chapter 2 - Background

Main reason to generate this kind of system is to protect the nature from getting destroyed by human activities. This is a huge problem in these days to get addressed and now it has already become an inevitable activity. If we don't stop this doing from now on there will be no something called as planet earth and there would be no sign of it. Day-by-day forests getting destroyed by people and it is gradually increasing. Water resources also getting destroyed. Animals don't have enough water to vanquish their thirst. As an average for a year that is estimated around 3.5 billion hectares or more than that. There are some people living in the forests, they are called as indigenous people. Their home is the forest, flora and fauna. They love the nature than us. It is not a good thing at all to destroy their home lands. They are not only the inhabitants over there they protect what gives them to survive their lives. As we are experiencing the current pandemic Covid-19 can be also considered as a throwback something bad towards us for what we did to the nature in the past. The key point is the nature is not get affected by these. This is not only the bad output. Global warming, erosions, problems with respiratory system, lack of oxygen to breathe for both human and animal, no enough water to vanquish our thirst as springs are getting destroyed. As our research showed there was no better system as this one in the past to implement a better solution for the deforestation and people in the past did not use the technology to innovate something that really helps to protect the nature. It could be any equipment or any nature protecting committees. Although there were knowledgeable people, they did not know the way to invest that towards the nature to protecting activities. From our system we provide a better platform for those who like to give their ideas, expressions or their contribution to nature protecting activities and we force people in the world by awarding some prizes and appreciate the engagement. Any user can register in our system and children can also take part in our system. As they can also give their support to protect this as well as it is a good habit to practice them to protect the environment from the childhood. Easy sign in process and no payments have to be made but after Only 0.5\$ has to be paid for single uploading image. We expect to invest this money on protecting environment, our system maintenance and to protect the life of the indigenous people by enhancing their daily lives and to provide them better sanitations.

Winners are chosen at the end of every 6 months and they are giving with 100\$ USD for each and we hold a special ceremony at the day of World Environment Day and leaders of each environment protecting committees get highly appreciated for their activities and encourage them to keep going and those who invent new equipment to protect the nature, they are also highly appreciated here.

Chapter 3 - Specification and Design

3.1 Algorithms



```
1 <?php
2 $servername="localhost";
3 $username="root";
4 $password="";
5 $dbname="mynewproject";
6
7 $cont = mysqli_connect($servername,$username,$password,$dbname);
8
9
10 if(isset($_POST['submit'])){
11
12     if(!empty($_POST['username']) && !empty($_POST['useremail']) && !empty($_POST['us
13
14         $username=$_POST['username'];
15         $usermail=$_POST['useremail'];
16         $userpassword=$_POST['userpassword'];
17         $userage=$_POST['userage'];
18         $userphone=$_POST['userphonenumber'];
19         $encryptedpw=md5($userpassword);
20
21         $quary="insert into userinfo(name,email,password,age,contect) values('$username','$u
22         $runn=mysqli_query($cont,$quary) or die(mysqli_error);
23         if($runn){
24             echo 'Submission is succesfull';
25         }else{
26             echo 'Submission is failed !!';
27         }
28     }else{
29
30         echo "insert all values";
31     }
32 }
33
34
```

PHP Hypertext Preprocessor file

Figure 3.1 Encryption

As shown in the Figure 1(one) we have used **md5** encryption algorithm to encrypt the data. Here the user password gets encrypted and it get stored in the database. It is a one-way function and even though we have system data breach; all accounts are secured due to the password encryption. Clients do not have to be worry about their personal data. Third party person can't access the personal information.

3.2 Use case diagram

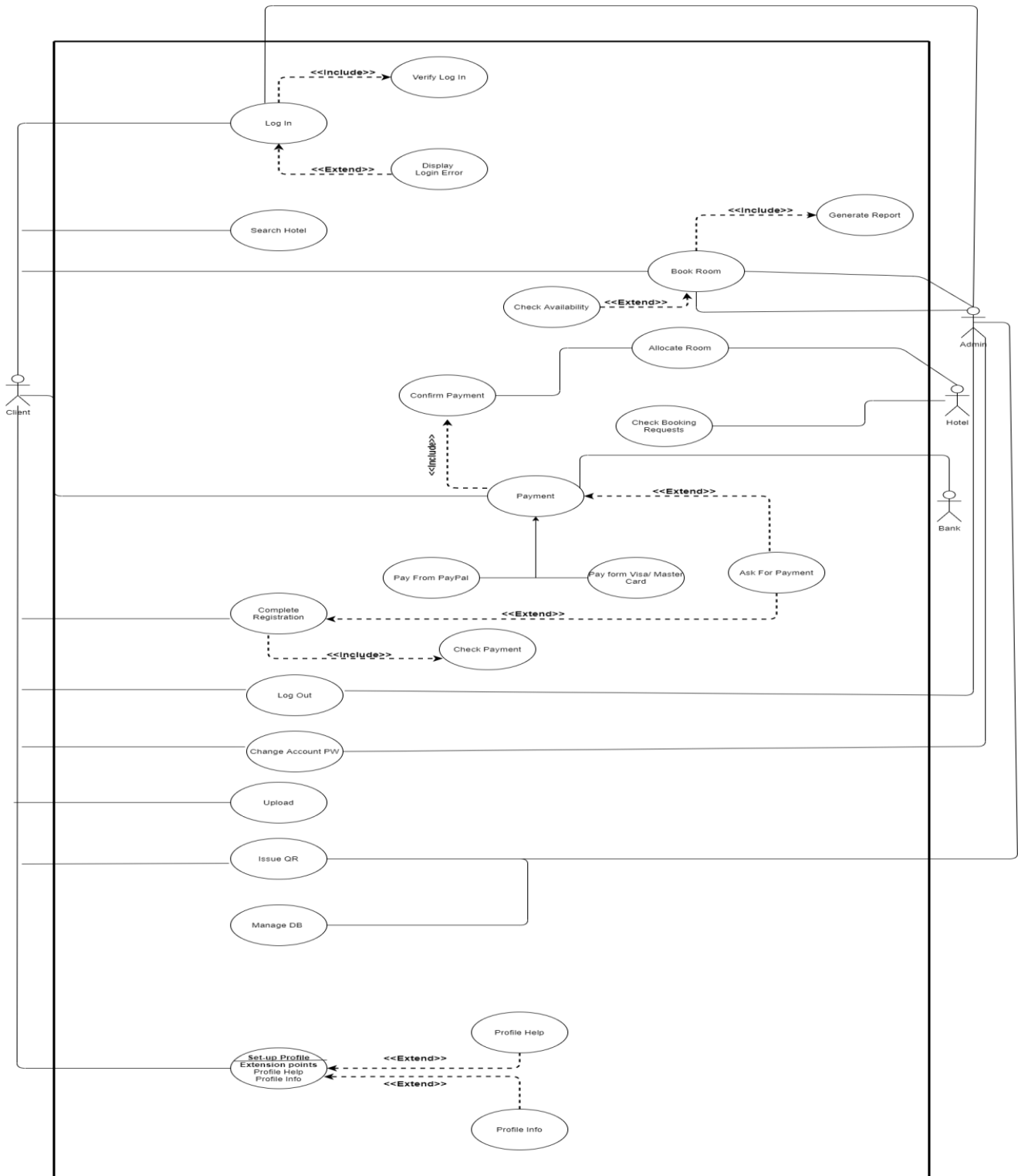


Figure 3.2 Use case diagram

3.3 ER Diagram

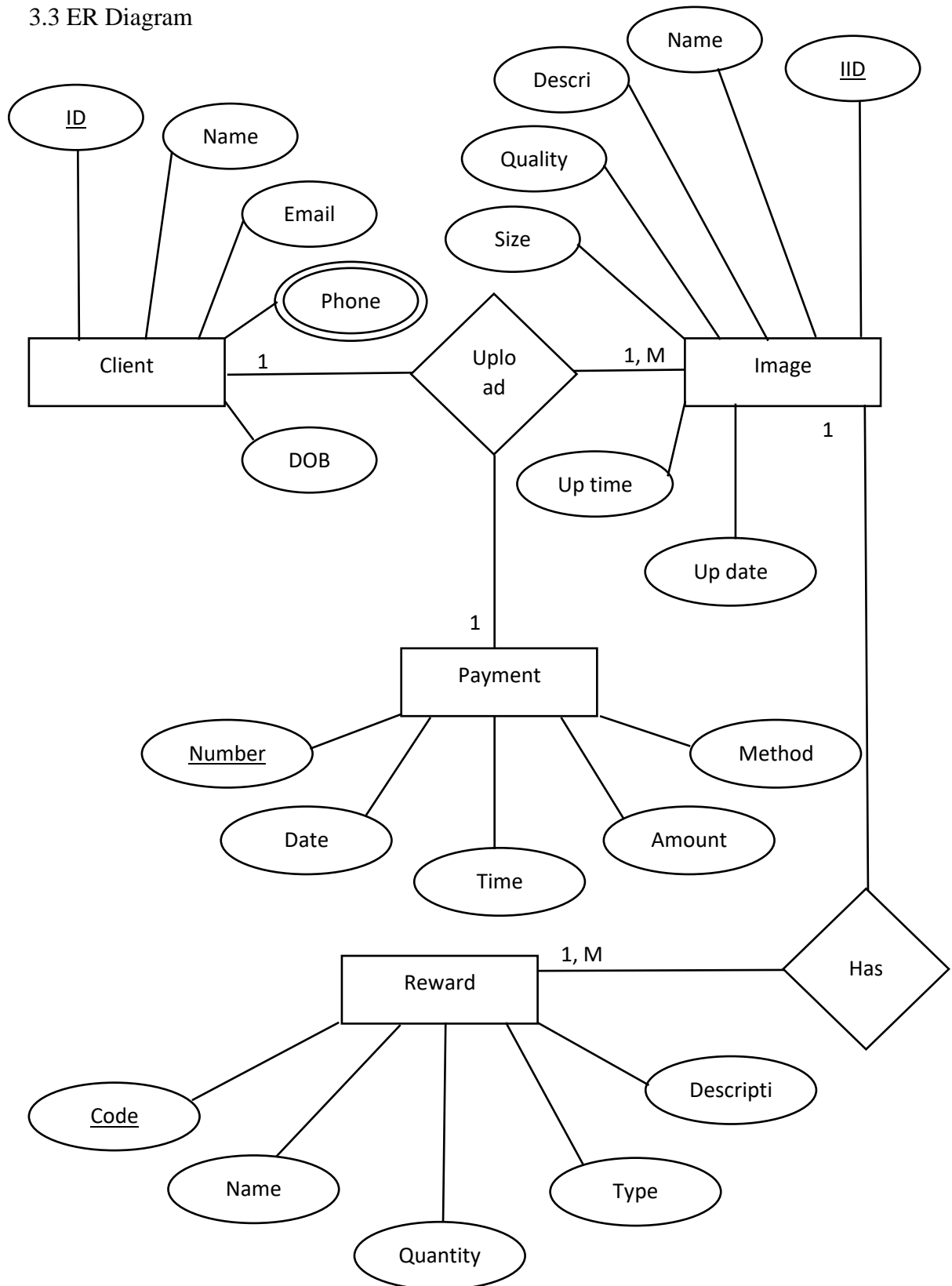


Figure 3.3 ER diagram

3.4 Physical Mapping of ER Diagram

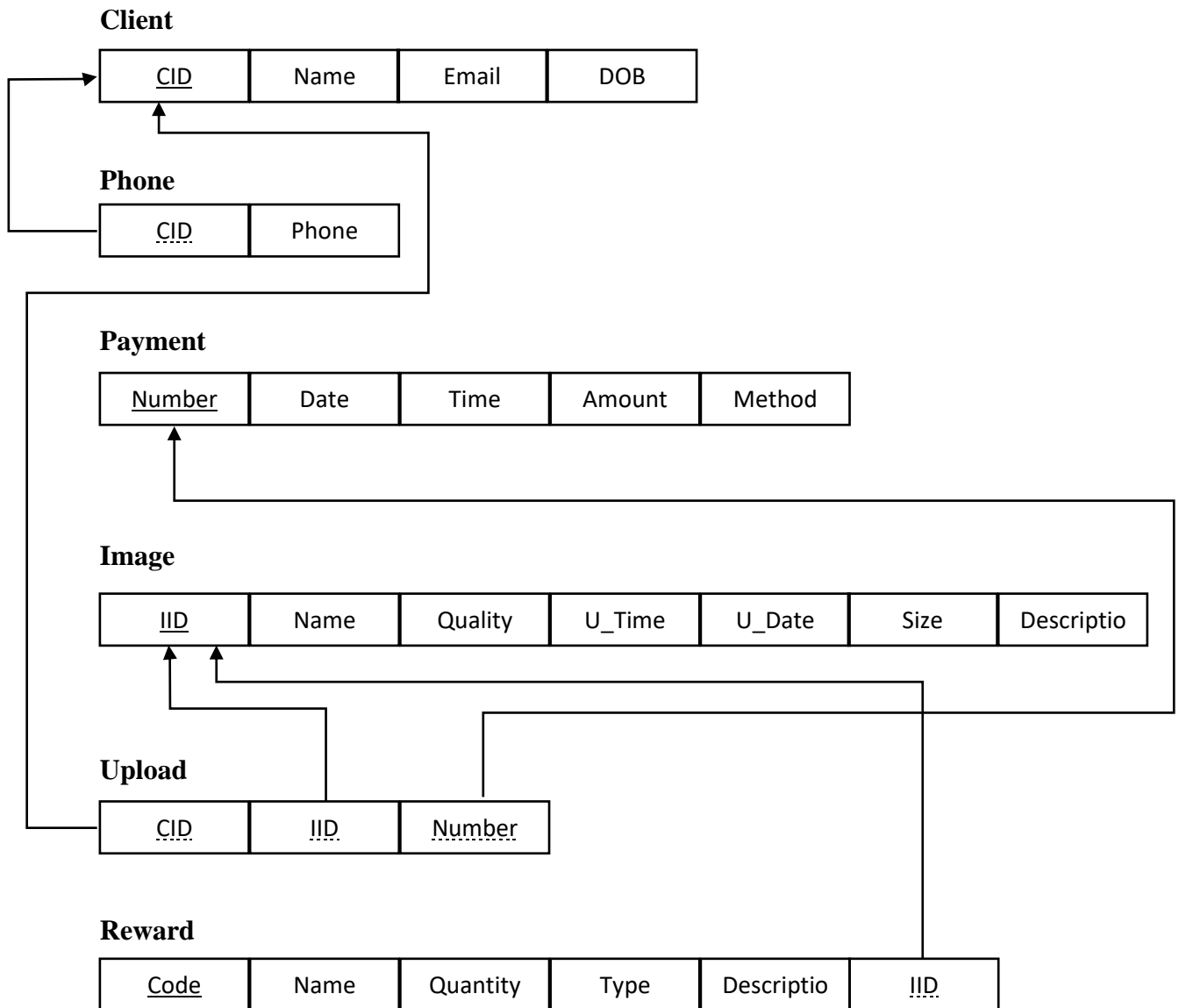


Figure 3.4 Physical Mapping of ER Diagram

Assumptions we made during the ER mapping

- Client pays onetime payment for single image.
- Single client makes the whole payment.
- Single client can make payment for one or many uploading images.
- For a winning image can be given with one or more additional prices.

3.5 Data Model

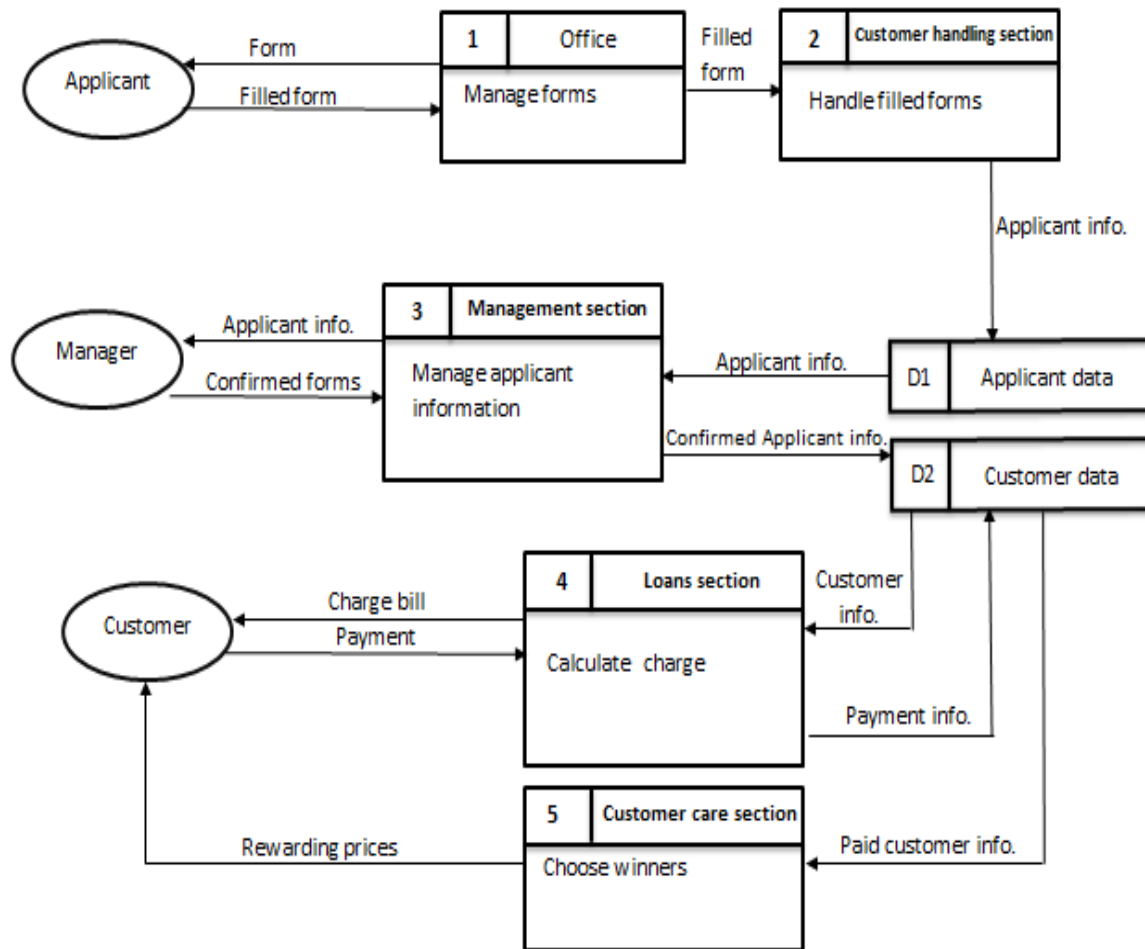


Figure 3.5 Data Model

As you can see in the DFD diagram shown in the Figure 3.5 user can get the application from our office via online or locally. Then the filled forms go to the customer healing sections and they store that user information in the database called as application DB. Then that information is gained by the management section and check the validity of those. After the confirmation of the manager that confirmed data get stored in the customer database. Then the invoice is given to the customer. After the payment is made by the customer that information gets stored in the customer database. Rewards are rewarded by the customer care section.

3.6 Sequence diagrams

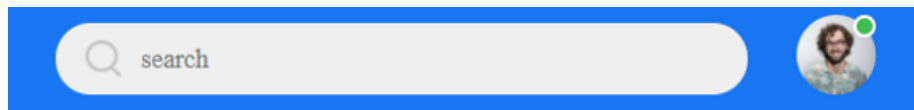


Figure 3.6 Search / Advanced search

Clients can search anything from this search bar. Easy access to our content. There is no advanced search. If clients ask for that Requirement, we can consider that as well. This will appear at the top-right side of the page.



Figure 3.7 Register

Customers can register from here so easily. No additional payments are added. It is all free. Clients can click or tap on the “Sign in” button. No advanced navigation bars.

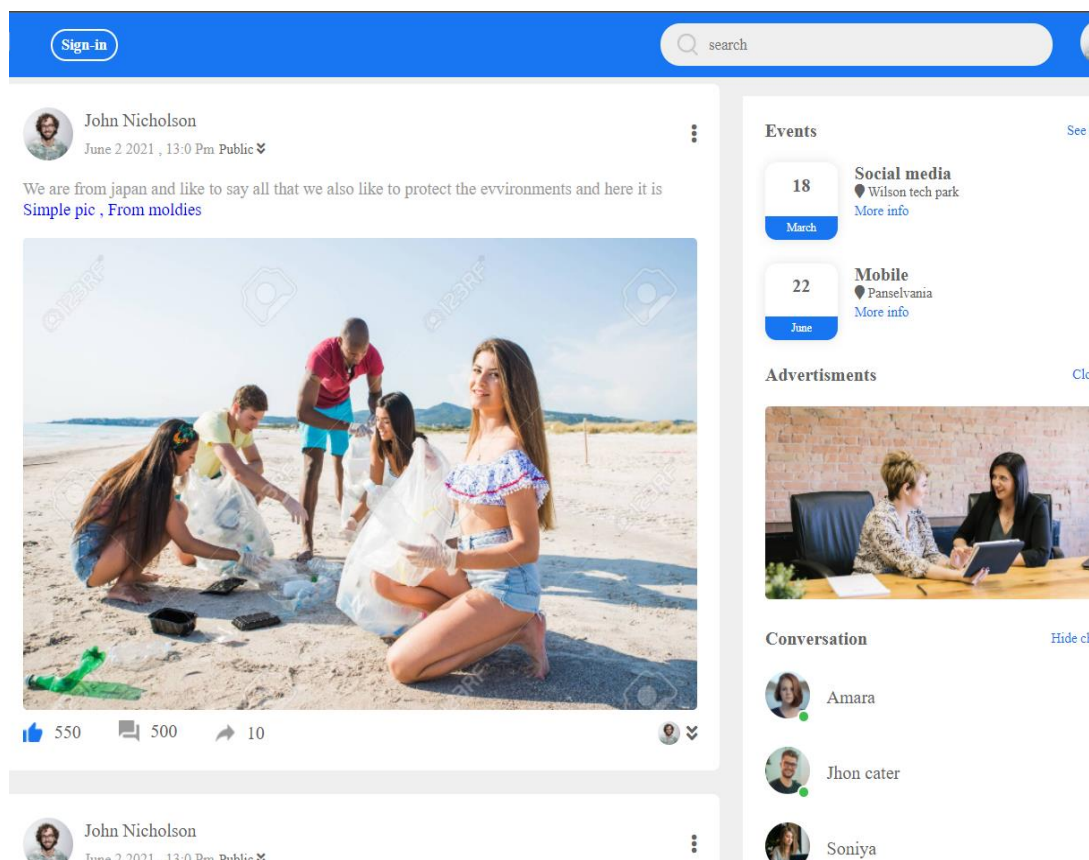


Figure 3.8 Main Home page

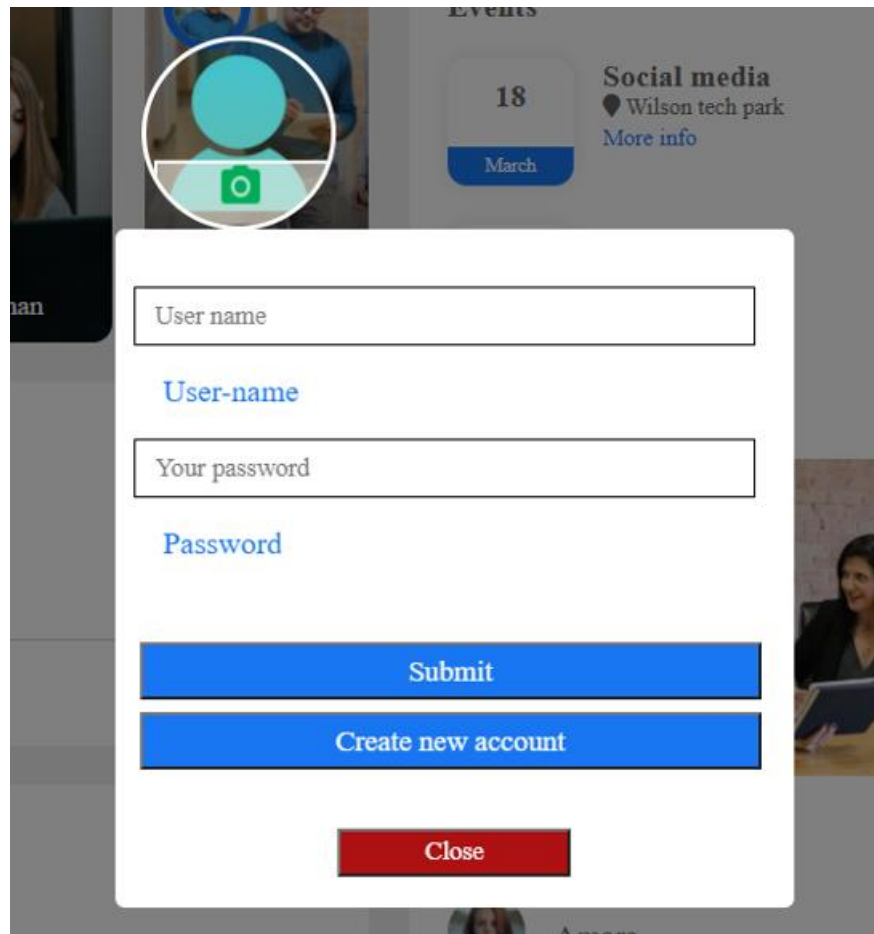
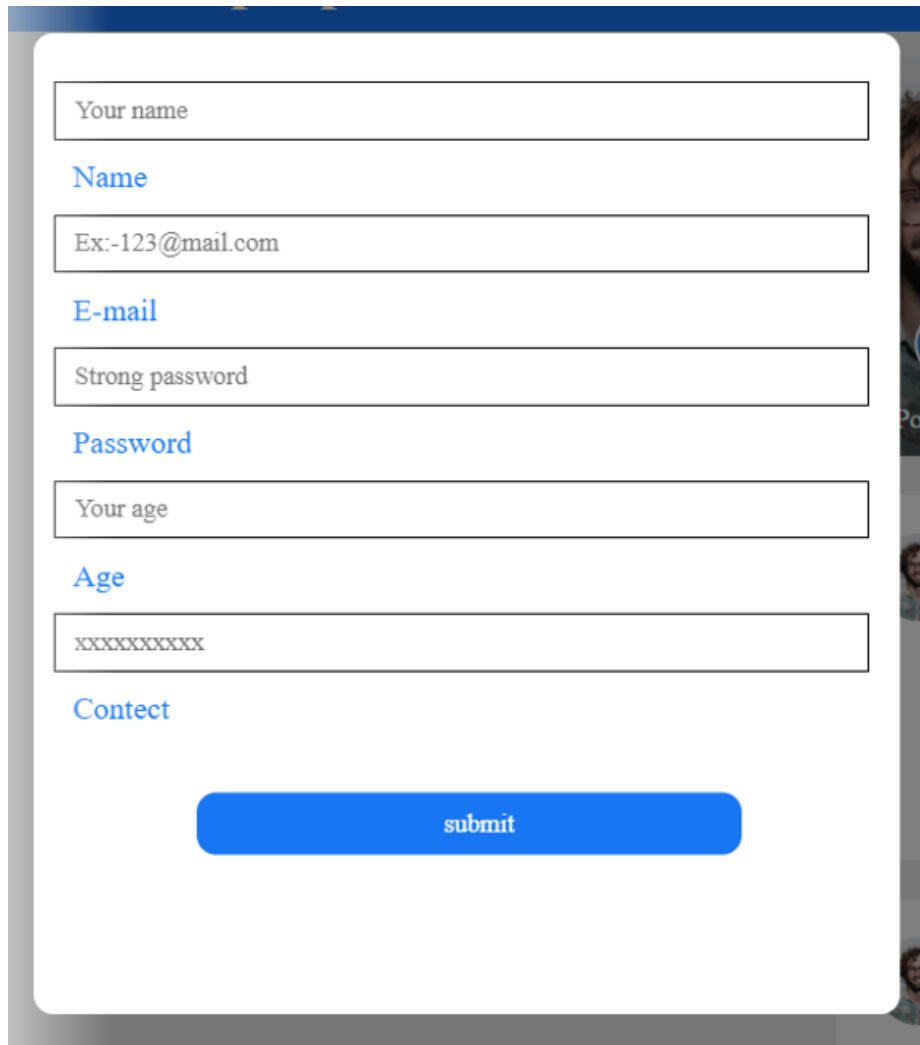
A screenshot of a web application showing a 'Client Sign-In' dialog box. The dialog box is a white rectangle with rounded corners, centered on the screen. It contains three input fields: 'User name' (with a blue 'User-name' label below it), 'Your password' (with a blue 'Password' label below it), and a 'Submit' button. Below the 'Submit' button is a 'Create new account' button. At the bottom of the dialog box is a red 'Close' button. The background is a blurred image of a website with a user profile icon, a date '18 March', and social media links.

Figure 3.9 Client Sign-In dialog box

Then you will be directed to the next page where this kind of dialog box can be seen. If a client has already registered in our site/system, they can easily give their “User name” and “Password” appropriately and can grant the access to our site by clicking “submit” button. Those who do not have any account they can click “Create new account” and then get registered or client can press “close” button to close the dialog box. Client can also upload a profile image by clicking the above user icon but user has to make user that uploading image has to be 50px by 50px resolution. Otherwise, the image will be blur.

A user registration form with a white background and a blue border. It contains several input fields with placeholder text, each preceded by a blue label. The fields are: 'Your name' (placeholder: 'Your name'), 'Name' (placeholder: 'Name'), 'Ex:-123@mail.com' (placeholder: 'Ex:-123@mail.com'), 'E-mail' (placeholder: 'E-mail'), 'Strong password' (placeholder: 'Strong password'), 'Password' (placeholder: 'Password'), 'Your age' (placeholder: 'Your age'), 'Age' (placeholder: 'Age'), and 'Contact' (placeholder: 'Contact'). A blue 'submit' button is at the bottom. The form is set against a background of a blurred image of people.

Your name

Name

Ex:-123@mail.com

E-mail

Strong password

Password

Your age

Age

xxxxxxxxxx

Contact

submit

Figure 3.10 User information form

This step is only for those not registered in our system. After clicking the button “Create new account” customer will be pointed towards this kind dialog box where they have to put their personal information. All fields are required. User has to give appropriate information. Client has to remember to give a strong password or passphrase. Finally, clients can hover over the button “submit” and click it. There is no age limit here. Clients cannot use two (2) or more than one account from the same logged in email. It is considered as an illegal act. Anytime we have authority to remove them. We ensure that all your personal information is stored here securely. Clients do not have to be worried. We ensure that.

After going through these all-process users can be a member of our system. They can customize their profile as they want.

Server: 127.0.0.1 » Database: useninformation » Table: user

Options: 1 > >> Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

				id	name	address	email	age	phone	password
<input type="checkbox"/>	Edit	Copy	Delete	1	mithila dilshan	111/5 kurawalana , k	name@gmail.com	25	0761009042	12
<input type="checkbox"/>	Edit	Copy	Delete	2	mithila dilshan	111/5 kurawalana , k	name@gmail.com	25	0761009042	7b52009b64fd0a2a49e6d8a93
<input type="checkbox"/>	Edit	Copy	Delete	3	Ruth C Cooper	4427 Rardin Drive	dilshanwickrrachchi99@gmail.c	25	0761054042	1a985b0cff70ee55c987f8c77
<input type="checkbox"/>	Edit	Copy	Delete	4	mithila dilshan	111/5 kurawalana , k	sldil1997927@gmail.com	25	0761009042	f350d780ea8aaa48030b4db64
<input type="checkbox"/>	Edit	Copy	Delete	5	Ruth C Cooper	4427 Rardin Drive	name@gmail.com	25	0761004567	d8d4f12b4a03c826b244b6365
<input type="checkbox"/>	Edit	Copy	Delete	6	Ruth C Cooper	4427 Rardin Drive	sldil1997927@gmail.com	25	0775002154	0d467c11c1f788a43266782aa
<input type="checkbox"/>	Edit	Copy	Delete	7	Ruth C Cooper	4427 Rardin Drive	sldil1997927@gmail.com	25	0775002154	0d467c11c1f788a43266782aa
<input type="checkbox"/>	Edit	Copy	Delete	8	Ruth C Cooper	4427 Rardin Drive	sldil1997927@gmail.com	25	0775002154	0d467c11c1f788a43266782aa
<input type="checkbox"/>	Edit	Copy	Delete	9	Ruth C Cooper	4427 Rardin Drive	sldil1997927@gmail.com	25	0775002154	0d467c11c1f788a43266782aa
<input type="checkbox"/>	Edit	Copy	Delete	10	Ruth C Cooper	4427 Rardin Drive	sldil1997927@gmail.com	25	0775002154	0d467c11c1f788a43266782aa
<input type="checkbox"/>	Edit	Copy	Delete	11	Ruth C Cooper	4427 Rardin Drive	sldil1997927@gmail.com	25	0775002154	0d467c11c1f788a43266782aa
<input type="checkbox"/>	Edit	Copy	Delete	12	Ruth C Cooper	4427 Rardin Drive	sldil1997927@gmail.com	25	0775002154	0d467c11c1f788a43266782aa
<input type="checkbox"/>	Edit	Copy	Delete	13	Ruth C Cooper	4427 Rardin Drive	sldil1997927@gmail.com	25	0775002154	0d467c11c1f788a43266782aa
<input type="checkbox"/>	Edit	Copy	Delete	14	Ruth C Cooper	4427 Rardin Drive	sldil1997927@gmail.com	25	0775002154	0d467c11c1f788a43266782aa
<input type="checkbox"/>	Edit	Copy	Delete	15	Ruth C Cooper	4427 Rardin Drive	sldil1997927@gmail.com	25	0775002154	0d467c11c1f788a43266782aa

Figure 3.11 PhpMyAdmin Database

When the user clicks on submit button user's data get stored in the data store. As shown in the Figure 3.11, the user password or passphrase get encrypted by using md5 algorithm and then get stored. Other information gets stored as plain text. Here we use a local host called XAMPP to host the website.

Chapter 4 - Implementation

4.1 Software and hardware requirements

Below table – 4.1 shows the minimum and the recommended requirements for the desktop application and as well as in the mobile applications.

Component	Minimum	recommended
CPU	2.1 gigahertz (GHz) x86- or x64-bit dual core processor with SSE2 instruction set	3.3 gigahertz (GHz) or faster 64-bit dual core processor with SSE2 instruction set
Memory	2-GB RAM	4-GB RAM or more
Display	Super VGA with a resolution of 1024 x 768	Super VGA with a resolution of 1024 x 768

Table 4.1 Requirements

Less than the above-mentioned minimum requirements may make less satisfaction for the users.

Let's see what are the network requirements.

- Bandwidth greater than 50 Kbps (400 kbps)
- Latency under 150 ms

Supported web browsers.

- Microsoft Edge running on Windows 10, Windows 8.1, Windows 8, Windows 7
- Mozilla Firefox running on Windows 10, Windows 8.1, Windows 8, or Windows 7
- Google Chrome
- ❖ Google Chrome (latest publicly-released version) running on Windows 10, Windows 8.1, Windows 8, Windows 7
- ❖ Google Chrome (latest publicly-released version) running on the two latest publicly-release Mac OS versions
- **Not available in Apple safari.**

4.2 Difficulties involving existing software

Less communication

Software development process requires a team collaborating to address consumer needs. Every member has to know what is the project's coding strategy, objective and goals of the developing project. Otherwise, the failure affects the manager's reputation, ruin the organization brand name and the team's output. A good manager will make sure each team member knows the project's multiple facets and immediately educate new hires. This will increase synergy and productivity.

Overloaded functions

The largest obstacle that we have observed is, when it comes to launching a new software package is the desire to put too much into one application. To overcome this, be more specialized rather than more general—look for sub-niches. Remember, less is more when we are trying to solve a problem.

Underestimating the task at hand

On the way to the development of the system there could be many hardships on the road ahead. Save yourself some time and hardship by scheduling in some extra cushion time in case it is needed. In the worst-case scenario, that space is used to conduct tests on the project or take some much-needed time off. Many times, developers underestimate the task at hand, and an extra cushion can decrease pressure and anxiety for somewhat.

Not asking “why” question

One of the most common problem is building the wrong product. Businesses need to understand not just what a customer is asking form them, but “why” they're asking for this specifically. Businesses need to determine the “why” to provide the most effective software for their customers.

4.3 Lack of appropriate supporting software

Here we use the Notepad++ for coding phase. If it is possible to use visual studio code (VS code) that would be very easy to code. It is not get installed due to lack resources. Specially by turning on the live server component that shows the result real time if something goes wrong, we can make that easily and quickly. Other one is we didn't have the MYSQL installed in the PC. Then we used the XAMPP in-built SQL command line interface to write the quires to extract the data from the database.

4.4 Over-ambitious project aims

By implementing this system, we expect to reduce the nature pollution at least by 10%, globally and we try to grow our population/ network day-by-day to our nature protecting community and try to rebuilt the nature like it was in the past. We also expect to provide a better platform to the other nature protecting communities to broadcast their sessions about protecting environment via our web site, it is all done for free. Clients can intervene for those sessions as well and get some knowledge about what is happening in the soundings.

Chapter 5 - Results and Evaluation

When a new client comes and give their personal information, we don't look at the age limit. Here we done a black box testing by giving the boundary values to check whether it gives the right respective output for a reasonable time period and minus numbers cannot be inserted and should be less that 100(hundred)too. In the Email field user have insert the "@" sign to get registered. Phone number must be consisted with ten numeric values starting with zero (Country code can be differ). We have entered some testing data into the fields to check whether it gets stored in the database in the right table. We couldn't ensure that this system is 100% accurate because this may involve lots of checking and double checking (to ensure that the inputted data is correct) which may bring it in to conflict with other requirements concerned with the allowed time a given process should take. These requirements also need to be discovered or for any requirements – checked that they are not in conflict with other requirements, in this case such as accuracy. It is up to the project Business Analyst to mediate the resolution to conflicting requirements. Some of our limitations are, it is hard to send too much of invoices to the clients for each uploading images and when the winners are higher than we expected stock will be over soon. These are the strategies that we made to overcome the limitations. Our newly developed system gives an opportunity to search they need easily and efficient way, easy access for their targets. This is done by providing a whole new stock control datastore to the goods. This will save the time of the customers. With the aid of security different levels of system uses can be introduced which would mean information of the company like employee details can be stored in the datastore or in the database. This would be a better feature because it will help to identify the countermark when a sale transaction is made it will be recorded so if errors arise in human error with sales transactions the system can check to see who is the client who carried out the sales transaction. This way can protect the company brand name also. With the help of the system we can generate better results and charts can be produced to give a better prospectus of the company finance and how much profit is being made withing a particular time or we can get an idea of what kind of improvements that we need to make to the system. Also, this can lead to queries being performed to see which images give the most so a larger variety can be introduced or those who get low likes, shares and views, we can couch them to increase the particular component to gain some higher results.

Chapter 6 - Future Work

Plan the obsolescence of the deployed system

We have to reduce the obsolescence of both hardware and software while they are being used. Hardware is one of the main components here. Development team has to implement regular upgrades to reduce this hardware obsolescence and keep the uptime higher than the downtime and in software side, we have to look for what are the hidden vulnerabilities and fix them before some third-party person exploits that and then make an attack. In future we have to have a better updating cycle to exploit these vulnerabilities and fix them as quick as possible and to implement a web-based and host-based firewalls as well. IDS (Intrusion detection system) and IPS (Intrusion prevention system) also going to be implemented.

Consider more about the IT consolidation

There are many consolidation methods that can be used to implement but one of the best ways of doing that is to migrate the existing servers and the data stores to the cloud services. Here we use a private cloud to store the information of the clients and private cloud to store the web site application. That means it is a hybrid cloud. So, we only have to spend money on the private cloud. Capex. (Capital expenditure) is small. This will save a lot of money and that can be invested to do something else work that helps to increase the company income and the productivity and efficiency. The scaling flexibility is also so high in the cloud consolidation. We expect to move them in the future.

Follow current trend for future needs

Here we have to make a foresight for the future needs. The best way to anticipate what the future IT landscape will look like is to follow trends as they emerge and consider how they may be applicable to your business model. Company has to adapt for the changes. In particular, it's important to keep an eye on emerging trends that are producing measurable and consistent benefits for the businesses that and company can implement those requirements.

Chapter 7 - Conclusions

As our research shows we lose around five million hectares per year and 95% of this deforestation occurs in the tropics but they are not used to make products in the local market. The reason for that is for their personal deeds. For instance, building hotels or houses, killing rhinos to take their horns to make money and there much more illegal activities out there. With the instance of stopping these tasks, there are many non-profitable organizations out there to teach the importance of the nature and to stop the deforestation. But we stablished a company not an organization. But we are looking to work with them. One person can't do the whole task. We have to contribute each other. Some of the non-profitable organizations are, amazon watch, Canadian forestry association, conservation international are some of them. Our objective is, via our system we implement a better platform for the all organizations or any nature protecting companies to express their ideas or update what are the future implementations of theirs and they can contribute for our expectations. With the help of the expansion, we not only look at our country only, we hope to look over the whole world with green eye. We can take straight actions against those who doing illegal acts and do the deforesting and smuggling tree to other places. We assume them to take to the justice take the right actions against them or impose a bail. Protecting indigenous people is also one of our key points. Providing them with sanitations facilities, try to adapt them into social works and help them to make their lives much more easier and better. We expect to do these tasks with the help of our funds and money that we make when a client uploads the images.

Here we concern about how to motivate the people for doing this. Main way to do that is to award some money prices and parsing them to keep carry that work on. Nature lovers also can contribute for doing these works by provide their own ideas of how to protect the nature and other components of the nature or they can come to know about these things through our platform by discussing with the high-level persons in nature protecting comities and they can get advises form them to what to do about above mentioned problems. Here we found some limitation of hosting the web site locally. Then we migrate that into the cloud and move out datastore into a cloud and there is a big gap in the communication between us and the other nature protecting communities. Here we sent some Emails by asking them to join their hands with us for our future plans and make our community so strong and more powerful and make our world better place to live

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Appendices

Appendix C

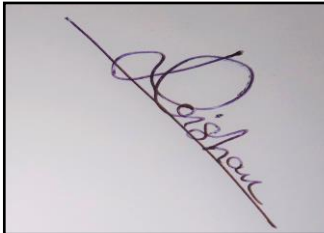
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Name of Student

MITHILA DILSHAN WICKRAMAARACHCHI

Signature of Student



Date: 2022/07/30

Appendix D – Certificate of Approval

Certificate of Approval

We hereby declare that this thesis is from the student's own work and effort, and all other sources of information used have been acknowledged. This thesis has been submitted with our approval.

Head of the department

Signature of the Head of the Department

Date:

Internal Supervisor

Signature of the Internal supervisor

Date:

*****END*****