

**DESIGN AND IMPLIMENTATION
OF
ASSET MANAGEMENT SYSTEM**

Submitted by

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of
Master of Science in Management Information System.

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**DAFFODIL INTERNATIONAL UNIVERSITY
DHAKA, BANGLADESH
JANUARY 2022**

APPROVAL

This Project titled “**ASSET MANAGEMENT SYSTEM** ” Submitted by Mohammad Miftah Uddin, ID No:211-17-456 to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of MIS. In Management Information System and approved as to its style and contents. The presentation has been held on 20-01-2022.

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We hereby declare that this project has been done by us under the supervision of **Mr. Md. Zahid Hasan, Associate Professor & Coordinator of MIS** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

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ACKNOWLEDGEMENT

First I express my heartiest thanks and gratefulness to almighty Allah for His divine blessing makes us possible to complete this project successfully.

I fell grateful to and wish my profound my indebtedness to Supervisor **Md. Zahid Hasan, Associate Professor & Coordinator of MIS, Department of Computer Science and Engineering, Faculty of Science & Information Technology**, Daffodil International University, Dhaka. My supervisor has deep knowledge and deep interest in computer science to accomplish this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior draft and correcting them at all stage have made it possible to complete this project.

I would like to express our heartiest gratitude to Professor and Head, Department of CSE, for his kind help to finish our project and also to other faculty member and the staff of CSE department of Daffodil International University. We would also like to thank our entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

I would like to thank my entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

Finally, I must acknowledge with due respect the constant support and patient of my parents.

ABSTRACT

The main goal of this “Design and Implementation of ASSET MANAGEMENT SYSTEM” project is to make easy procedure to keep record of assets of an institution. By using this system, any company can handle multiple department and assets of departments at a time. In this project, we have two modules, Admin and Department Manager. Admin in this project “Design and Implement of ASSET MANAGEMENT SYSTEM” will log in with the default username and password. Admin can add department manager. Those department managers can upload different assets information with required details. This will be notified by admin, after accepting admin can check all summary of assets. By this way, an institution can keep record of all information about their assets of every department this application is created using the powerful and powerful PHP, HTML, CSS, and java Script database system MYSQL. I Apache server have used to display the web page, for data handling and strong. An Apache server has used to display the web, for instants a XAMPP server is used to do that. Finally I hopeful that, the portal will be succeed for my and tourist user.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The “Asset Management System” project is a web depended asset monitoring project. Asset is the major part of every institution. Making better position of a business company or institution should manage their assets by the best way. Without managing asset in a perfect procedure, a company cannot required target or be succeeded. There are different types of assets are being used in a company. Those asset types are depending on the company.

“Asset management system” project can be used for all kinds of company or institutions. This system can remove the problem managing assets in a company. Every company consists of different departments. Every department has separate activities and they have to manage own activities. Again, department has required assets. Those assets are depending on the department. So those company hand over responsibility of every department on separate managers. To manage the assets of every department, those managers have to accountability to the company. “Asset management system” project will be the best way to manage the assets of those companies.

The main goal of our project is make easier system for monitoring activities and assets of a company. By using this project, companies can manage every department by creating separate user panels. Every manager will manage their assets and update status of every asset. Asset status refers to which assets are new, which are repairable and update those data in the system. “Asset management system” project can be solved all of these activities. Besides, this project can measure depreciation rate of every asset. This is another major fact of an asset. By measuring depreciation rate, a company can realize validity of an asset. Because, major companies are want to know the amount of depreciation an asset. This calculation gives them an idea to which assets are long lasting and which are not. “Asset management system” project can update this rate for every asset.

1.2 Motivation

1. The aim is to design and develop this project making easier way to manage assets of an institution.
2. To keep all data of new and repaired assets.
3. To notify department manager about their asset information.
4. To notify admin when new assets are added.

5. To save both the asset authority's and admin time.
6. It will be useful for an institution to monitor the depreciation rate of assets.
7. Manage the asset lists which are passing validity date.
8. Change or repairing assets which are not working fine.
9. Making history of these repairing information and date for those specific assets.
10. To set role of every department managers

1.3 Objectives

1. Different production house which are producing different product. These production houses have to maintain many departments at a time. They can use "Asset Management System" project.
2. Educational institutions have to manage number of departments. Every department has separate asset list. So, they have to maintain those assets.
3. Those companies can use "Asset Management System" which are containing with number of departments. They can set the user or manager for separate department.

1.4 Report Layout

In chapter 2, presented my project background. I also briefed on the project's job, scope and difficulties. I indicated the project requirement in chapter 3. I described the use case, ER diagram and design specifications of the information flow diagram in the chapter. I also addressed the process of collecting and analyzing requirements. In Chapter 4, I stipulated the project's front end and back end layout. I displayed the execution of the project as a whole and checked each part of the project climate that the application is working as expected in Chapter 5 and scope of the project's further growth.

CHAPTER 2

BACKGROUND

2.1 Introduction

Asset management of a company is one of the major facts. Without proper management a company cannot make long term business. Because, there can be happen many unexpected incident. For this reason, there are some asset management systems are available. Here, we discuss about those projects and activities of those projects. I do, I develop the entire feature that other do, but I added some unique extra feature like asset depreciation rate and sending text to admin from department managers..

2.2 Related Works

Waiting for long times to notify asset authority's inform asset information, is a common scenario in Bangladesh. While looking for the applications that are quite similar to my project ASSET MANAGEMENT SYSTEM, I came across these projects that are used in Bangladesh such as "MINT", "YNAB.

Though these webs try to serve the same purpose but at the same time they have a lot of limitations. Here I have tried to point the main features and limitations of these existing applications and have tried to show the solution of these limitations solved in Asset Management System.

➤ MINT:

Features of This System:

Mint is an application by which an institution can maintain their business rules. This has been the perfect for asset equipment for few time and it automatically update and categorizes financial and building a picture of passing in time. By this application user can add their personal categories, tracking bills and have to add assets when they are passing their maximum value. This service have provided free credit scores and credit monitoring.

System Design of Mint :

Feature 1: Optimized Routine

MINT is using routine by depending on business rules, constraints. While admin providing the concept about business procedures. This application user can add their financial charges. Cost-based routine maintains different sources selected based on the minimum expenses cost factor like cost or travel cost.

Feature 2: Conflict checks

Checking confliction of schedule is another major part of MINT. It has work rule compliance and covered the schedules. If there have an issue for a specific reason, the assembled status may reflect and it respectively allow to make immediate action.

Feature 3: Forecast ahead

With MINT, keeping track of all qualifications and calculating the relevant expiration dates automatically, training courses can thereby be scheduled based on the demand that is visible in the system. MINT helps you get a better idea of your training volumes to optimize planning and staffing effort for the future.

Limitation of Mint:

- ✓ There has no way to calculate product depreciation rate.
- ✓ Doesn't have an option to store necessary records.
- ✓ Have no option to notify admin about newly added assets..

➤ YNAB:

Features of ynab:

YNAB is a software by which user can make a plan for every dollar they achieve. This software can connect with user bank account, can set goal for contributing to save and customize different categories. Besides, user can also access different resources like web guides, asserting advices and many workshops.

System Design of YNAB

Feature 1: Proven Method

YNAB have four major rules. They are- the key, the magic, the secret sauce, if you learn. By learning their method user can budget successfully. This can be effected on their business.

Feature 2; Budget Together

It can make access to information from another devices in anytime can make it simple finances with another.

Limitation of Ynab:

- ✓ No option to save/store department manager's record.
- ✓ Irritate user with constant commercial ads.
- ✓ There has no way to calculate product depreciation rate.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Modeling

After generating an application idea the next step that is to be followed is to gather requirements needed to develop the application. Requirements are the fundamental characteristics of the application that is to be developed. It determines user's expectation from the product. There has some specification is basically used in a business process model. In case of this web application, '**Asset Management System**' has tried to gather enough relevant and detailed requirements to make it more fruitful for users.

3.2 Requirement Application

Collection and evaluation of requirements is one of the main stages of growth of applications. Some pre-requisites of the required scheme must be mounted first before installing the real software.-

- Operation system (windows 7/10)
- Anti virus
- XAMPP server

XAMPP server 7.0.9-0 has PHP 5.5.19 Apache 2.4.0, MYSQL 5.7.19. It has phpMyAdmin and Sqlitemanager.

3.2.1 DFD Symbols

The descriptions of each requirement are provided below:

- A square defines a system information source or destination.
- An arrow identification in movement information flow information. It is a pipeline that follows data.
- An open rectangle is a residual data store or temporary data repository.
- A diamond sign is a condition checker that checks the status of the method if any. ^[2]

A circle or bubble is a method where incoming data flows are transformed into outgoing data stream. Process display, data storage etc. in figure 3.2.1.

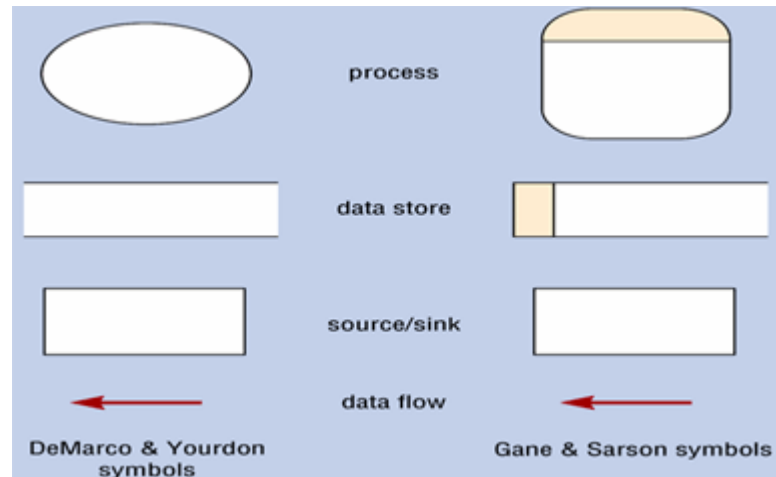


Figure 3.2.1: DFD Symbols

3.2 .2 Data Flow Diagram

A logical model is a fully assigned data model independent of DBMS, Technology, data storage, or organizational limitations. It typically defines business-as-usual information demands. Common methods of information modeling use a relational notation. There is no necessity to use relational technology to create the resulting information implementation. After this figure displaying user DFD diagram 3.2.2.

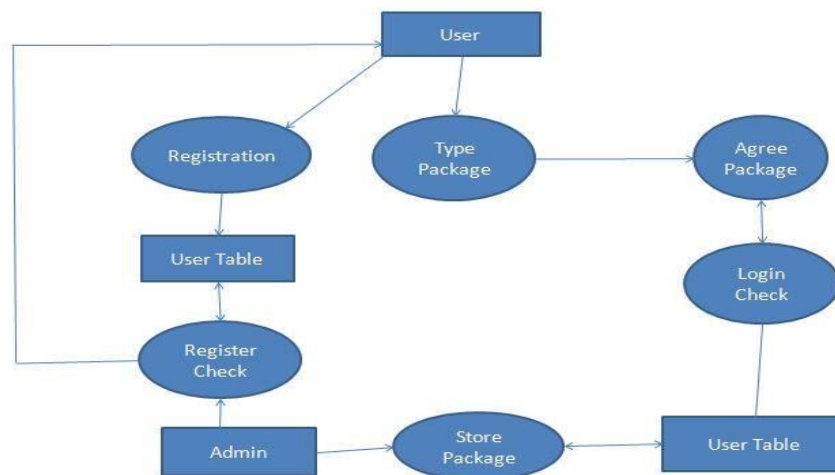


Figure 3.2.2: DFD Diagram

3.3 Use Case Modeling and Description

A use case is a description of how the system will be used by a consumer to achieve company objectives. It reflects a functional or system intervention. Cases of use are designated in the verb or verb+ noun

sentence [3]. Use cases and actors are the two primary elements of an application case diagram. Any entity performing a function in a specified scheme is an actor in a use case diagram. I can see a use case and actor figure as follows using a use case model in figure 3.3.1.

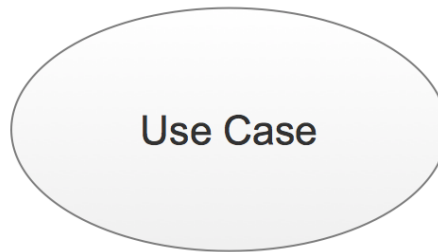


Figure 3.3.1: Use Case.

Usually the model in figure 3.3.2 is brief but sufficiently descriptive to define a user goal. In my project, my users are tourist and it was an online based system.

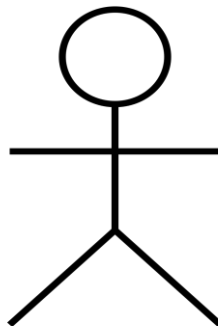


Figure 3.3.2: Actor.

For instance, if a tourist wishes to visit places any packages, asset must choose any package under this tour location. Others parts of admin option of any package information confirm and he want to package. I can also document scenarios and between admin and visitor with primary flow, exceptional flow and condition flow, etc.

The department manager requires logging in to the application in the suggested scheme and can locating the paths and reservations instantly and finishing the reservation process for a successful transaction. Following this Figure 3.3.3 showing administrator and operating user use case model.

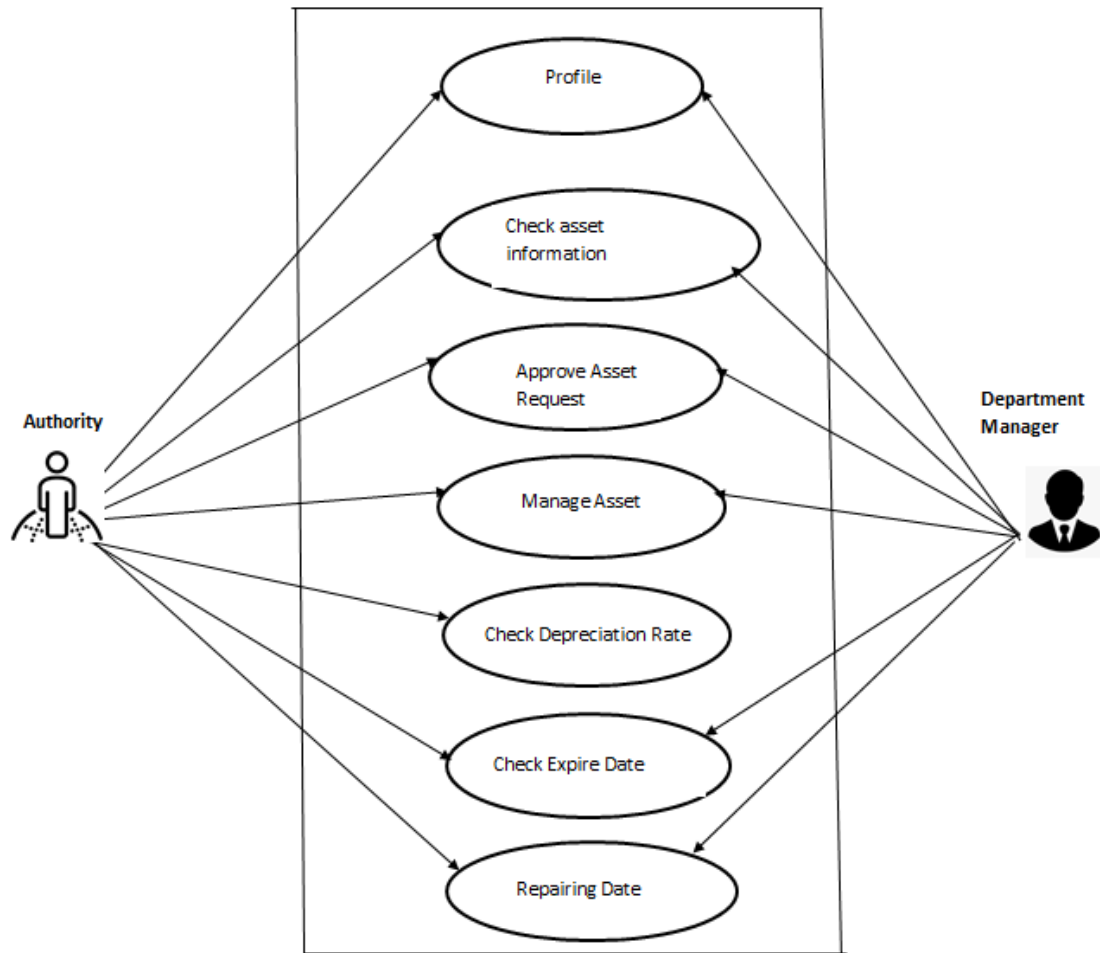


Figure 3.3.3: Use Case Model.

3.4 logical Data Model

A logical data model describes the data in as much detail as possible, regardless of how it will be implemented physically in the database. It involves all entities and their relationships. In the Entity Relationship Diagram called the ER diagram, both the logical data model and the physical data model are actually present. All characteristics are defined for each entity in the ER diagram. My project's design demands will differentiate and the product, system, or experience I have designed. The primary key is defined for each entity. Foreign key are specified and also specified all attributes type. In figure 3.4.1 had shown the projects ER diagram, design of database table [4].

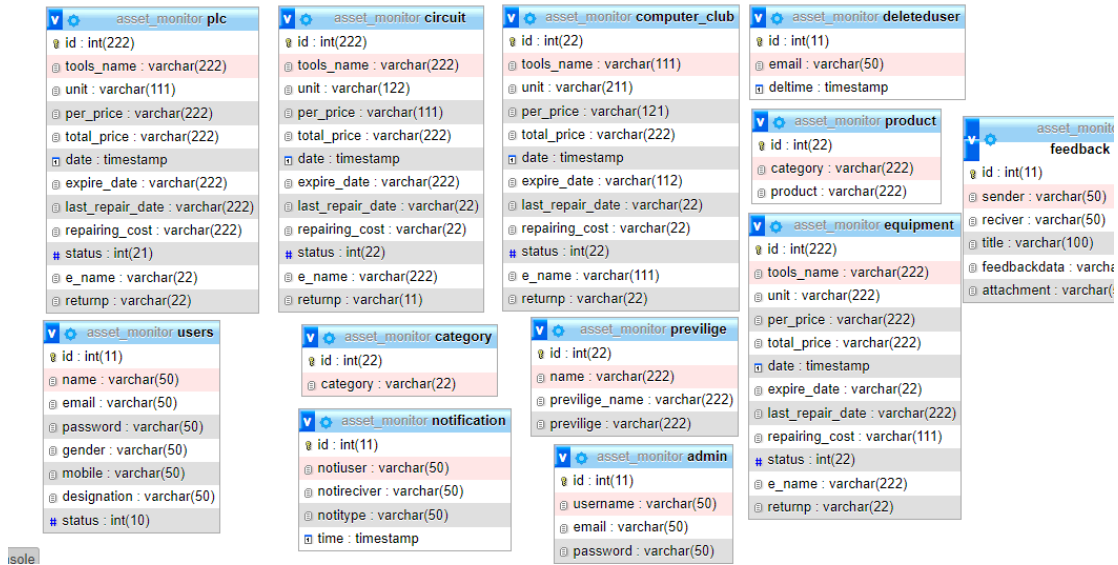


Figure 3.4.1: E-R Table DBMS.

Following this Figure 3.4.2 had shown E-R Diagram of user and admin category.

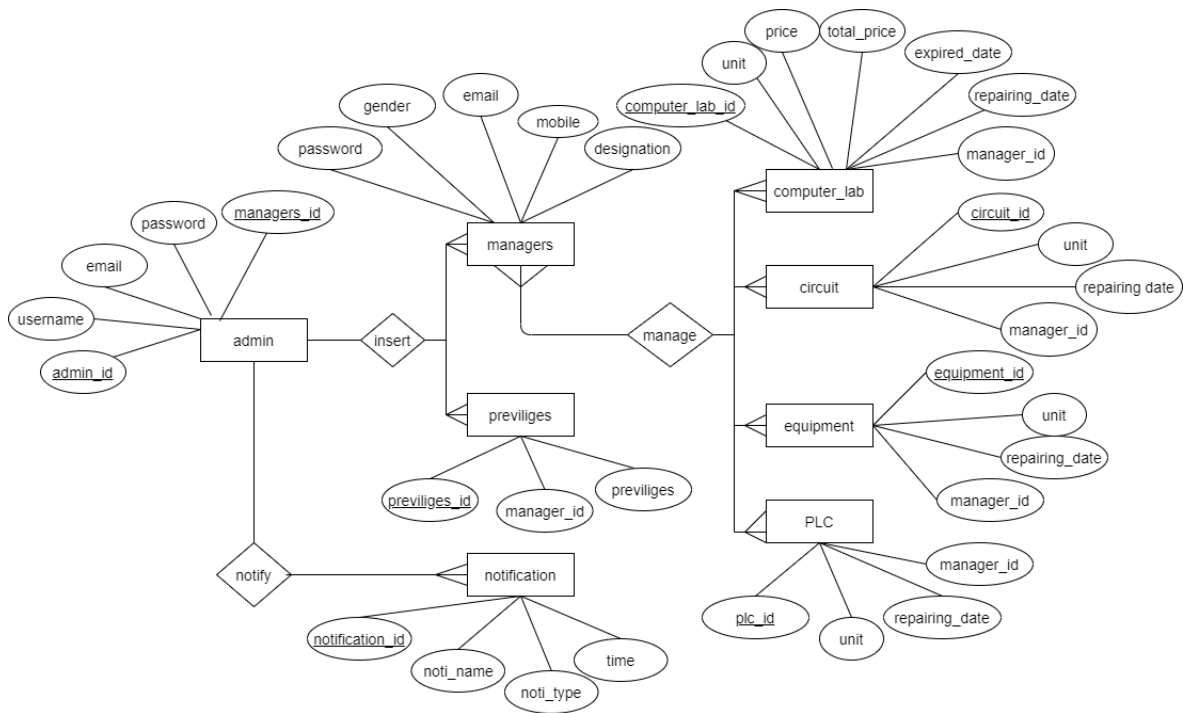


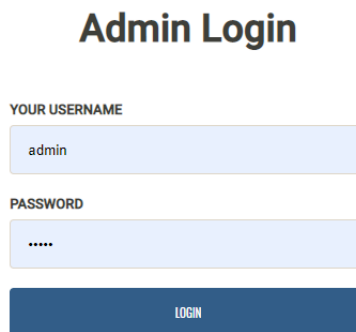
Figure 3.4.2: E-R Diagram

CHAPTER 4

DESIGN SPECIFICATION

4.1 Design specification

Front-end is the website's most significant component. It works on the presentation layer and is presented straight to the user, so the only way to communicate with the scheme is to create a straightforward and easy front end or GUI for the user. There is very popular quote about design that, "Everything must be made as simple as possible. But not simpler" by Albert Einstein, So I tried to keep my design as simple and easy accessible for user, although the development tasks wasn't easy. After all, I design it for user and I hope that user will accept my system easily. In bellow I attach my application front-end design. Following this figure 4.1.1 had shown login panel for admin.



The image shows a web form titled "Admin Login". It contains two input fields: "YOUR USERNAME" with the text "admin" and "PASSWORD" with masked characters ".....". Below these fields is a blue "LOGIN" button.

```

<h3>Admin Login</h3>
<div>
  <div>YOUR USERNAME</div>
  <input type="text" value="admin"/>
  <div>PASSWORD</div>
  <input type="password" value="....."/>
  <button type="button" value="LOGIN"/>
</div>

```

Figure 4.1.1: Admin Login Page.

About Us: Following this Figure 4.1.2 you can know our vision, our mission and safety information. So I explain many things on this page.

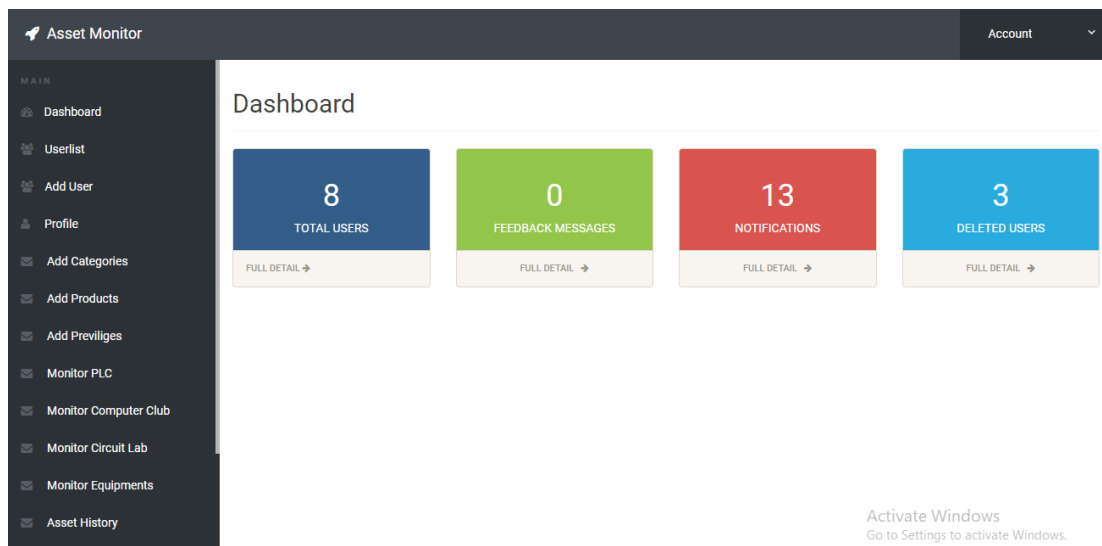


Figure 4.1.2: Admin Dashboard.

Admin can monitor all information at a glance. Here, admin can get access of userlist, add new user they are basically department manager, can add privileges to other department managers, if any department manager make any product request then a notification will send to admin. Admin have to accept those requests. This will help admin to maintain asset record easily.

Categories Page: Following this figure 4.1.4 has given all category links in different asset categories.

Asset Monitor

Account

MAIN

Dashboard

Userlist

Add User

Profile

Add Categories

Add Products

Add Privileges

Monitor PLC

Monitor Computer Club

Monitor Circuit Lab

Monitor Equipments

Asset History

Assigned Asset

Free Asset List

LIST COMPUTER LAB

Show10entries

Search:

#	Tools Name	Unit	Unit Price	Expire Date	Total Price	Date	Last Repair Date	Repairing Cost	Employee Name	Status
1	Computer	10	20000	22/02/2022	200000	2020-12-05 15:47:38	2020-12-12	800	abul	Free

Showing 1 to 1 of 1 entries

PREVIOUS

1

NEXT

LIST CIRCUIT

#	Tools Name	Unit	Unit Price	Expire Date	Total Price	Date	Last Repair Date	Repairing Cost	Employee Name	Status
1	Wire	10	5	22/02/2022	50	2020-12-05 15:48:11			Riasatul Islam Hasnain	Free

Figure 4.1.3: All Assets List.

All types of asset have listed in this page. Admin can check which assets are not assigned to a department manager. There will have some department like computer, electrical and equipment. If any department has updated any asset data then it will show in this page. This is not only asset buying information; this page will show the repairing information of an asset elaborately.

Besides, admin can assign a free asset to another department manager. After assigning a department manager, they will get a message which will inform about those assets.

Register Page: Following this Figure 4.1.7 Shown had a register page. This register page have access only to the admin. Admin can add any department manager in this form. Besides, admin can add any privilege to department manager. Inserted username and password can be used by department manager for accessing their own panel. Department manager will get access those pages which are added by admin.

The screenshot shows the 'Add Users' form in the Asset Monitor application. The form is located on the right side of the dashboard, with a sidebar on the left containing navigation links. The form fields are as follows:

- Name***: A text input field.
- Email***: A text input field with the value 'admin'.
- Password***: A password input field with masked characters '.....'.
- Department***: A text input field.
- Gender***: A dropdown menu with the value 'Select'.
- Phone***: A text input field.

Below the form fields is a blue 'Register' button. At the bottom right of the page, there is a watermark that says 'Activate Windows Go to Settings to activate Windows.'

Figure 4.1.4: Register Page.

The screenshot shows the 'Manage Users' page in the Asset Monitor application. The page displays a table of users with the following columns: #, Name, Email, Gender, Phone, Department, Account, and Action. The table contains 5 entries. Below the table, there is a pagination control showing 'Showing 1 to 5 of 5 entries' and buttons for 'PREVIOUS', '1', and 'NEXT'. At the bottom right of the page, there is a watermark that says 'Activate Windows Go to Settings to activate Windows.'

#	Name	Email	Gender	Phone	Department	Account	Action
1	Riasatul Islam Hasnain	daniel@gmail.com	Male	0171828281	Electrical	Confirmed	Edit Delete
2	Mr. C	c@gmail.com	Male	01919991191	Computer Science	Confirmed	Edit Delete
3	Karim	karim@gmail.com	Male	01812972570	Computer Science	Confirmed	Edit Delete
4	Hasnain	hasnain@gmail.com	Male	01812972570	Computer Science	Confirmed	Edit Delete
5	S M Arafat Fahad	arafatfahad98@gmail.com	Male	01840351735	Striker	Confirmed	Edit Delete

Figure 4.1.5: User List.

After adding, admin can userlist, in this list admin can update or delete any information about a department manager.

Asset Monitor Account

MAIN

- Dashboard
- Userlist
- Add User
- Profile
- Add Categories
- Add Products
- Add Privileges
- Monitor PLC
- Monitor Computer Club
- Monitor Circuit Lab
- Monitor Equipments
- Asset History
- Assigned Asset

Add Privileges

Name*

Privilege Name*

Privileges link*

Add

Activate Windows
Go to Settings to activate Windows.

Figure 4.1.6: Admin adding privileges

After inserting user, admin have to add privileges to their department manager. These privileges are depending on their required department which are they have to access.

Asset Monitor Account

Profile

- Add Categories
- Add Products
- Add Privileges
- Monitor PLC
- Monitor Computer Club
- Monitor Circuit Lab
- Monitor Equipments
- Asset History
- Assigned Asset
- Free Asset
- Notification
- Deleted Users
- Download Users-List

Assigned Asset List

LIST COMPUTER LAB

Show entries Search:

#	Tools Name	Unit	Unit Price	Expire Date	Total Price	Date	Last Repair Date	Repairing Cost	Employee Name	Status
1	Computer	31	10000	2/2/2020	310000	2020-12-06 09:41:23			Riasatul Islam Hasnain	assigned

Showing 1 to 1 of 1 entries

PREVIOUS 1 NEXT

LIST CIRCUIT

#	Tools Name	Unit	Unit Price	Expire Date	Total Price	Date	Last Repair Date	Repairing Cost	Employee Name	Status
---	------------	------	------------	-------------	-------------	------	------------------	----------------	---------------	--------

Activate Windows
Go to Settings to activate Windows.

Figure 4.1.7: Assigned Asset List.

Asset Monitor

Account

MAIN

Dashboard

Userlist

Add User

Profile

Add Categories

Add Products

Add Privileges

Monitor PLC

Monitor Computer Club

Monitor Circuit Lab

Monitor Equipments

Asset History

Assigned Asset

Tools List

LIST USERS

Show10▼entries

Search:

#	Tools Name	Year	Scrap Value	Depreciation Rate
1	Computer	2	10000	29.289321881345 %
2	Computer	2	5000	29.289321881345 %
3	Computer	2	17000	29.289321881345 %

Showing 1 to 3 of 3 entries

PREVIOUS

1

NEXT

Delete Tools

Activate Windows

Go to Settings to activate Windows.

Figure 4.1.8: Admin Checking Computer Depreciation Rate.

Following this figure 4.1.11 has shown depreciation rate of computer department. In here, depreciation rate refers the value of an asset after few years. It refers every asset doesn't have same price after few days. It's value must be reduced after few years.

Asset Monitor

Account

MAIN

Dashboard

Userlist

Add User

Profile

Add Categories

Add Products

Add Privileges

Monitor PLC

Monitor Computer Club

Monitor Circuit Lab

Monitor Equipments

Asset History

Assigned Asset

Tools List

LIST USERS

Show10▼entries

Search:

#	Tools Name	Year	Scrap Value	Depreciation Rate
1	PLC	5	5000	12.944943670388 %

Showing 1 to 1 of 1 entries

PREVIOUS

1

NEXT

Delete Tools

Activate Windows

Go to Settings to activate Windows.

Figure 4.1.9: PLC Lab Depreciation rate.

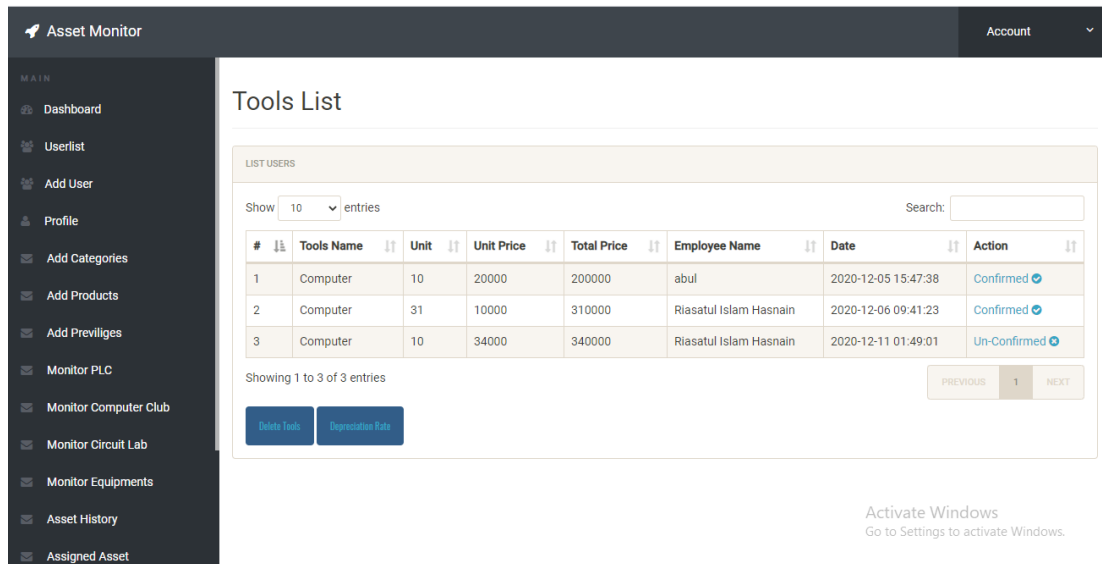


Figure 4.1.10: Assets of Computer Lab

Following this figure, admin can check all assets of computer lab. After adding an new asset to the computer lab from department manager. Then a confirmation request will appear in this list. Asset will not show to the department manager till admin will not make confirmation.

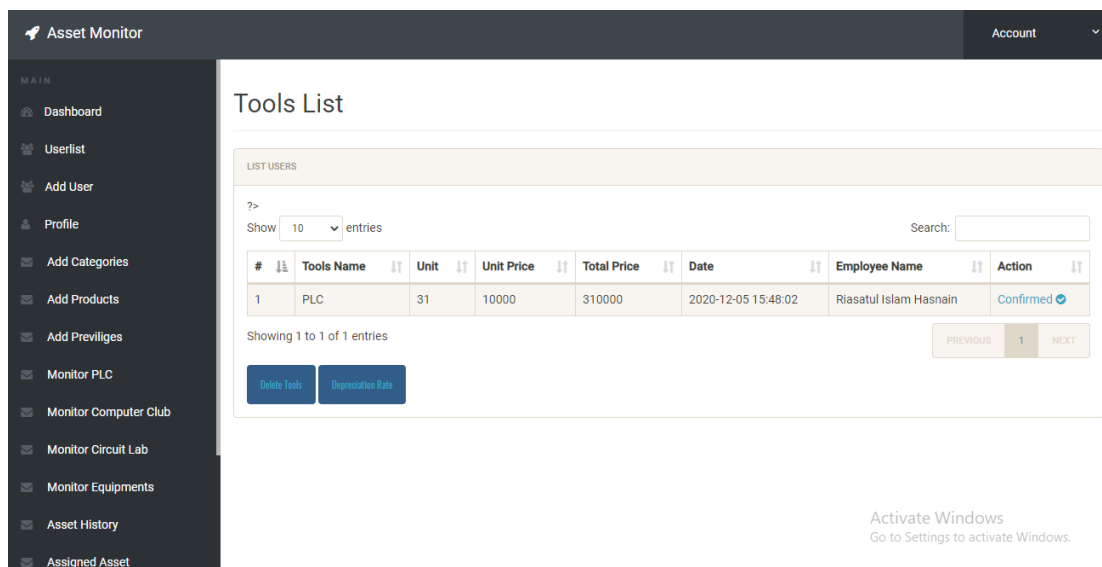


Figure 4.1.11: Assets of PLC Lab

#	Tools Name	Year	Scrap Value	Depreciation Rate
1	PLC	5	5000	12.944943670388 %

Figure 4.1.12: PLC Depreciation rate

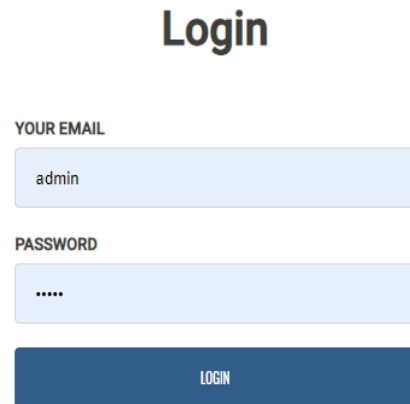
PLC Depreciation Rate: Following this figure 4.1.15 has given assets of PLC. This list showing the depreciation rate of those products which are assigned in PLC.

Notification
2020-09-24 10:42:21 test@gmail.com ----> Create Account
2020-09-24 10:28:40 admin ----> Create Account
2020-09-24 10:27:39 admin ----> Create Account
2020-09-08 21:02:08 hasnain@gmail.com ----> Create Account
2020-06-17 12:37:28 karim@gmail.com ----> Create Account
2020-06-16 14:19:43 c@gmail.com ----> Create Account
2020-02-12 14:28:04 riasatulislam@gmail.com ----> Create Account

Figure 4.1.13: Notification List

Department manager Panel:

- ✓ Admin add those employees in this system
- ✓ They have to login in their panel.
- ✓ After login, they can get their dashboard.

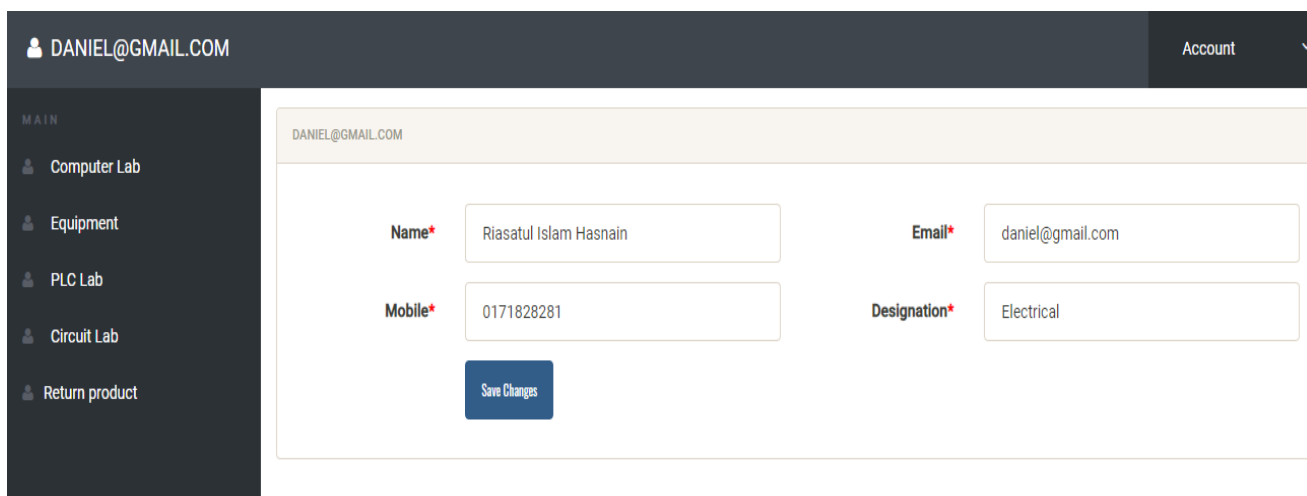


The login form is titled "Login" in a large, bold, dark blue font. Below the title, there are two input fields: "YOUR EMAIL" and "PASSWORD". The "YOUR EMAIL" field contains the text "admin". The "PASSWORD" field contains four dots "....". Below these fields is a dark blue button with the text "LOGIN" in white capital letters.

Figure 4.1.14: Department manager Panel

Department manager Panel (Cont.):

- ✓ Add Asset in privileged department.
- ✓ Maintain asset in different departments.
- ✓ Inform administrative.
- ✓ Update repairing information.
- ✓ Update their profile.



The screenshot shows a user profile update form. At the top, there is a dark grey header bar with a user icon and the email "DANIEL@GMAIL.COM" on the left, and an "Account" dropdown menu on the right. Below the header, there is a dark grey sidebar with the word "MAIN" and a list of menu items: "Computer Lab", "Equipment", "PLC Lab", "Circuit Lab", and "Return product". The main content area is white and contains a form with the following fields: "Name*" with the value "Riasatul Islam Hasnain", "Email*" with the value "daniel@gmail.com", "Mobile*" with the value "0171828281", and "Designation*" with the value "Electrical". There is a blue "Save Changes" button below the "Mobile*" field.

Figure 4.1.15: Department manager Panel (Cont.)

DANIEL@GMAIL.COM

MAIN

- Computer Lab
- Equipment
- PLC Lab
- Circuit Lab
- Return product

Circuit Lab

Tools Name :*

Unit :*

Per Unit Price :*

Expire Date :*

Add

Tools List

Inform Administrative

Figure 4.1.16: Circuit Lab

DANIEL@GMAIL.COM

Account ▼

MAIN

- Computer Lab
- Equipment
- PLC Lab
- Circuit Lab
- Return product

Computer Club

Tools Name :*

Unit :*

Per Unit Price :*

Expire Date :*

Add

Tools List

Inform Administrative

Activate Windows
Go to Settings to activate Windows.

Figure 4.1.17: Computer Club

4.3 Interaction Design and UX

This is a question that I hear a lot. Unfortunately, the response to this question is not easy. First, [5] there is no differing global definition of the two websites. That implies that in the website perspective my user's interpretation needs to modify and require in the proposal with priority.

In particular, interaction design is a discipline that examines the interaction between a system and its user. In fact, an interaction design that calls understands the department manager problem domain, processes the issue and finds the outcome, performs the action by respecting the outcome and solves the issue.

There is no doubt that an interaction designer's activity must follow some type of UX design method [5]. There is no point in undertaking user research and researching what users want if interaction designers who respond to these requirements are left with UX study outputs.

In fact, an interaction design that calls understands the department manager problem domain, processes the issue and finds the outcome, performs the action by respecting the outcome and solves the issue.

On the other side, user experience focuses on the general user-application experience. There are some features in my project that can communication with the user, one of the features is personal blog that can share the imagination or thought from one to another and could be motivate the system's use

For UX tried to give some tremendous experience by my website, to maintain my system simple and easier to use for better experience and efficiency, I have worked so many to reduce my application's data loading time and the effort will continue.

4.4 Implementation Requirements

Developing tools mainly used to develop the whole web page in where all facilities get from the tools.

Defining requirements is the first step to development of an important of sports places. Without requirements is like without backbone. Because, the developer don't know what he will do. Requirement provides the weedy parts about the system, these requirements are necessary to ensure that the system does not enter an undefined state. So, it is very important to develop a good requirement implementation for their website right definition.

The department manager requires adding new assets and any repairing being available. So I suggested that this project will solve all the problems.

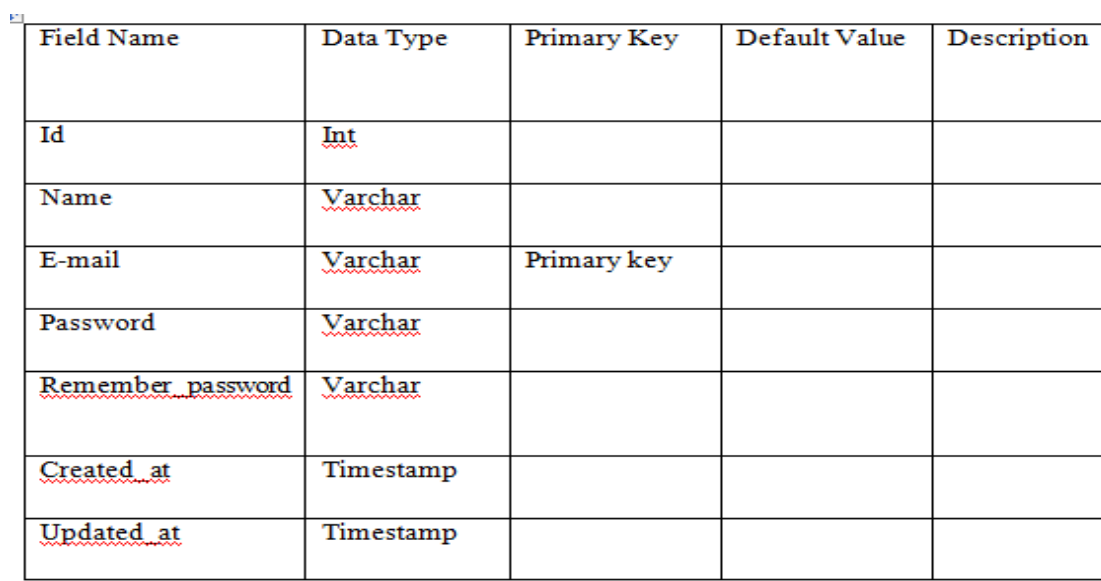
Plan execution may also be affected by misuse of funds, absence of accountability, non-transparency in decision-making, excessive laws and regulations, inconsistent priorities [6], elevated concentration of political power, and incompetent administration.

CHAPTER 5

DESIGN AND IMPLEMENTATION

5.1 Implementation of Database

According to requirements of the system, following tables have been constructed. The tables also called database schema when without data contents. The schema mainly describes the overall database system. The execution stage involves installing the DBMS on the necessary hardware, optimizing the database to best operate on that hardware and software platform, and creating the database and loading information. Therefore, follow this Figure 5.2.

The image shows a screenshot of a database table structure figure. It is a table with 5 columns: Field Name, Data Type, Primary Key, Default Value, and Description. The table contains 8 rows of data. The first row is the header. The subsequent rows list fields: Id (Int), Name (Varchar), E-mail (Varchar, Primary key), Password (Varchar), Remember_password (Varchar), Created_at (Timestamp), and Updated_at (Timestamp). The text in the table is underlined and has a red wavy line underneath it, suggesting it might be a screenshot of a document or a digital signature.

Field Name	Data Type	Primary Key	Default Value	Description
<u>Id</u>	<u>Int</u>			
<u>Name</u>	<u>Varchar</u>			
<u>E-mail</u>	<u>Varchar</u>	Primary key		
<u>Password</u>	<u>Varchar</u>			
<u>Remember_password</u>	<u>Varchar</u>			
<u>Created_at</u>	<u>Timestamp</u>			
<u>Updated_at</u>	<u>Timestamp</u>			

Figure 5.1: Database Table Figure.

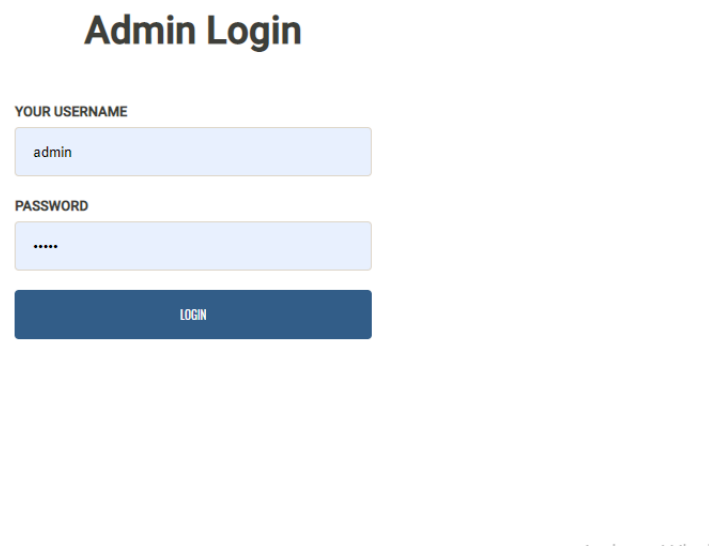
5.1.1 Database Design

The design of the database is the method of generating a comprehensive database model. This data model includes all the necessary logical and physical design decisions and physical storage parameters for generating a design in a language of data definition that can then be used to build a database [7]. For each entity, a fully assigned data model includes detailed characteristics.

- Primary key: This field is special for all occurrences of records.
- Foreign key: This field was used to set the tables connection. Standardization is a method to prevent tables being redundant.

It is possible to use the word database design to define many distinct components of a general database system design. Mainly and most accurately [7], the logical design of the database systems used for data storage can be considered.

However, the term database design could also be used to apply to the overall design process, not only the database structures but also the forms and queries use within the database management system (DBMS) as part of the overall database application. Under following all figures uses database. Following figure 5.1.1 has showing Admin login page. Admin login this page and only she can maintain all this sites.



The image shows a web form titled "Admin Login". It contains two input fields: "YOUR USERNAME" with the text "admin" and "PASSWORD" with five asterisks. Below these fields is a blue button labeled "LOGIN".

Figure 5.1.1: Admin Login Page.

Admin All Work Link Page: Following this figure 5.1.2 has showing all link. Like add user link, update user link, delete user link, and add category link and many others.

Asset Monitor Account

MAIN

- Dashboard
- Userlist
- Add User
- Profile
- Add Categories
- Add Products
- Add Privileges
- Monitor PLC
- Monitor Computer Club
- Monitor Circuit Lab
- Monitor Equipments
- Asset History
- Assigned Asset

Add Users

Name*

Email*

Password*

Department*

Phone*

Gender*

Register

Activate Windows
Go to Settings to activate Windows.

Figure 5.1.2: Admin All Work Link Page.

Add User Page: Following this figure 5.1.3 admin can add user if anyone interested.

Asset Monitor Account

MAIN

- Dashboard
- Userlist
- Add User
- Profile
- Add Categories
- Add Products
- Add Privileges
- Monitor PLC
- Monitor Computer Club
- Monitor Circuit Lab
- Monitor Equipments
- Asset History
- Assigned Asset

Add Users

Name*

Email*

Password*

Department*

Phone*

Gender*

Register

Activate Windows
Go to Settings to activate Windows.

Figure 5.1.3: Add User Page.

Update User Page: Following this figure 5.1.4 only admin can update user. This page for making uses database, PHP and CSS.

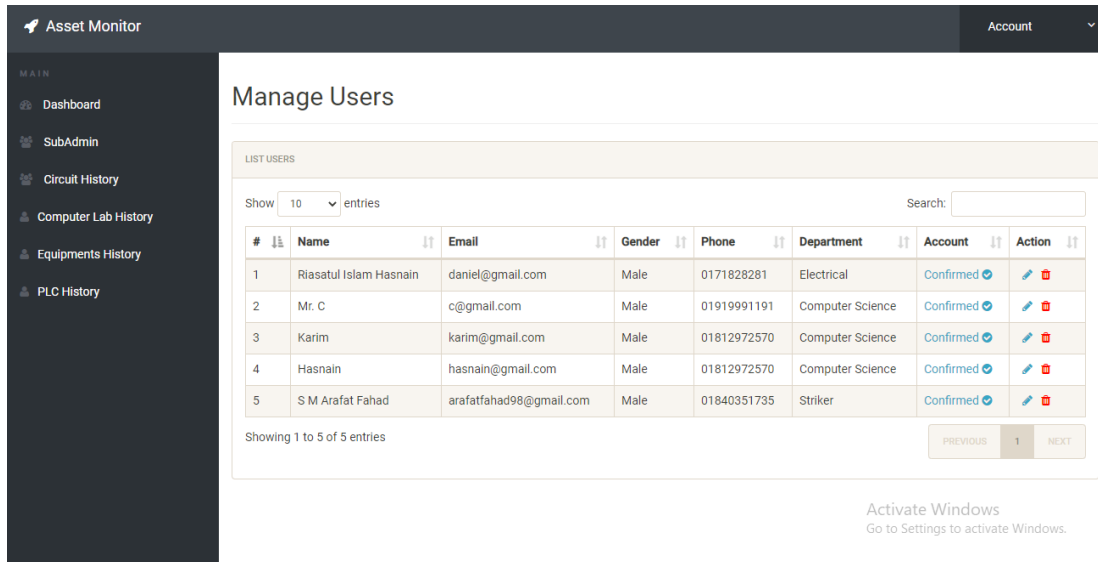


Figure 5.1.4: Update User Page.

Delete User Page: Following this figure 5.1.5 only admin can delete user. This page for making uses database, PHP and CSS.

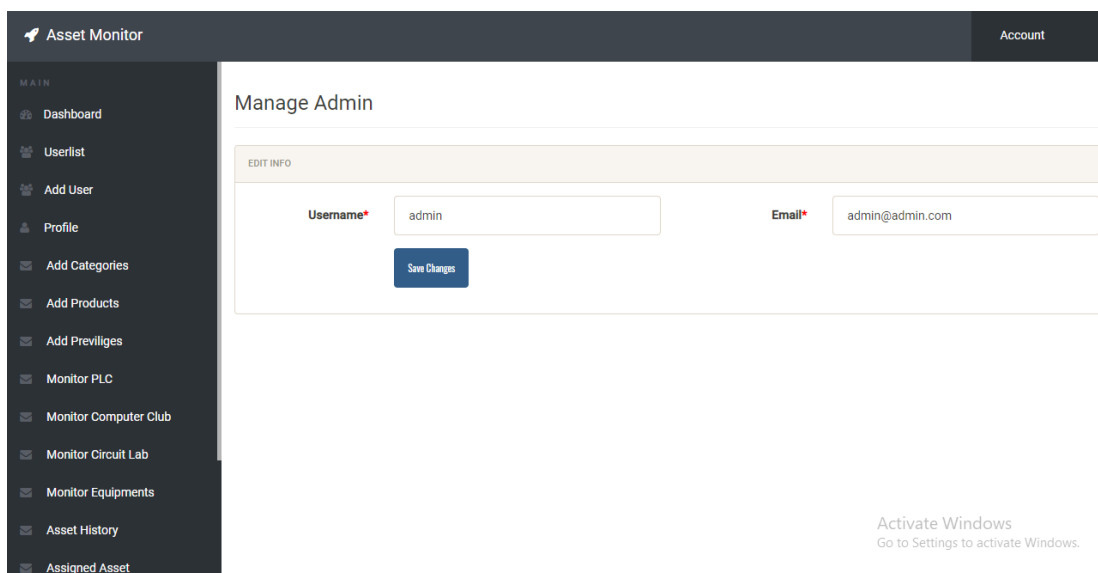


Figure 5.1.5: Updating Information Page.

Add Category Page: Following this figure 5.1.6 only admin can add category. This page for making uses database, PHP and CSS.

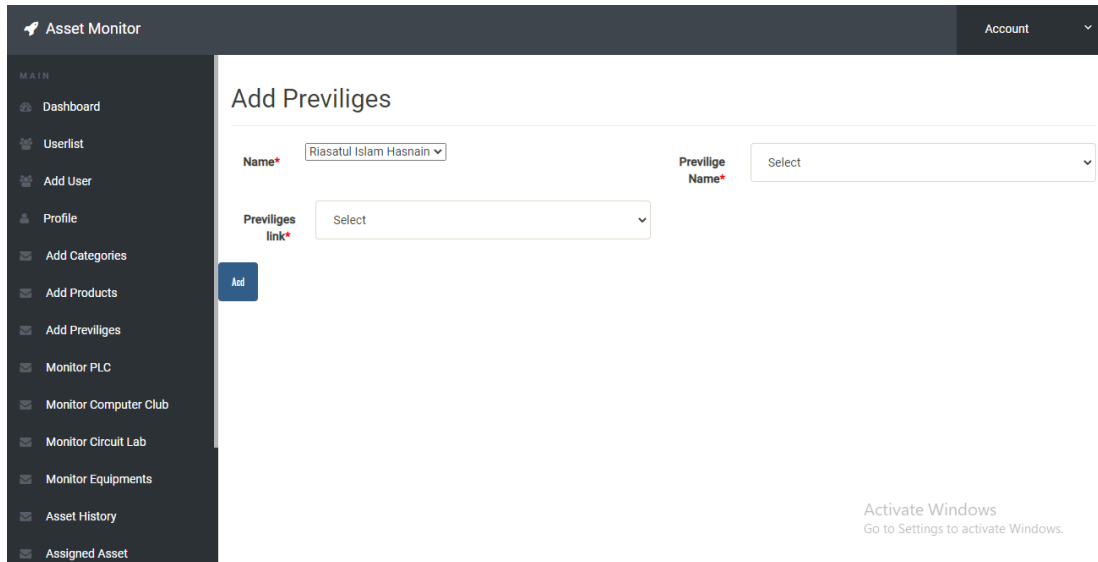


Figure 5.1.6: Add Privileges Page.

Delete Category Page: Following this figure 5.1.7 only admin can check department information. This page for making uses database, PHP and CSS.

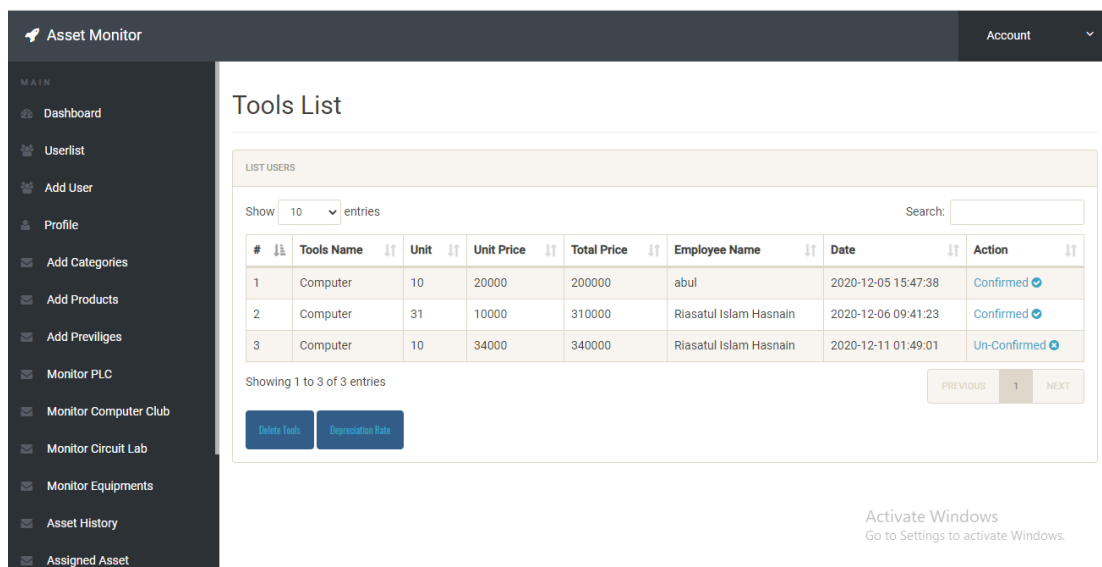


Figure 5.1.7: Confirm a computer lab data.

View Category Page: Following this figure 5.1.8 only admin can view depreciation rate of computer lab any time .This page for making uses database, PHP and CSS.

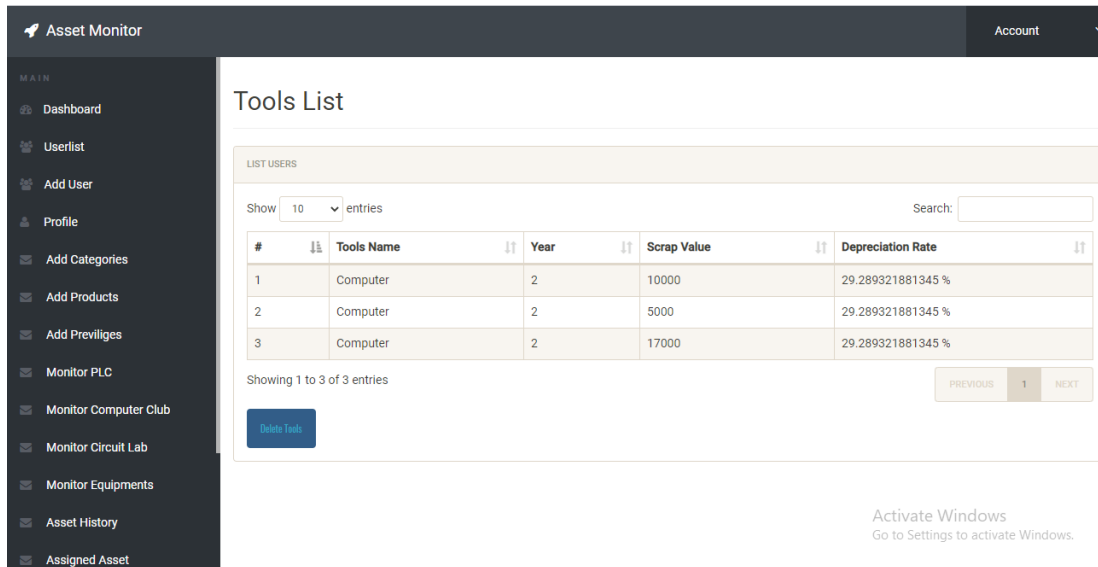


Figure 5.1.8: View Depreciation Rate.

5.2 Implementation and Interaction

The application of a sustainable asset management policy must take into consideration the analysis of the financial, environmental and social impact of the presence of tourist [8]. But if we are asset management as a source of job creation and economic growth, we need to be conscious of and do the perception and attitudes of the lovely location. This implies that the overall planning policy must be conscious of the chance to strengthen the asset management industry's beneficial effects (optimizing the advantages) and to mitigate or minimize the adverse effects that asset management feels.

The interaction can be discovered nearly everywhere in the true globe. Interaction is the key to making a user- friendly and dynamic system. Making a system interaction is very essential and I was also trying to go so. I also include some distinctive function, as stated previously, to communicate with our scheme as a asset management industry. Figure 5.2.1 update subcategory page can only be used to sow and alter or add.

Computer Club

Tools Name *

Unit *

Per Unit Price *

Expire Date * dd/MM/YYYY

Add Tools List

Inform Administrative

Figure 5.2.1: Employee adding products.

Delete Subcategory Page: Following this figure 5.2.2 only admin can return product if they have any time .This page for making uses database, PHP and CSS.

Return Product

LIST COMPUTER LAB

Show 10 entries Search:

#	Tools Name	Unit	Unit Price	Expire Date	Total Price	Date	Last Repair Date	Repairing Cost	Action
1	Computer	31	10000	2/2/2020	310000	2020-12-06 09:41:23			Inform Administrative Return

Showing 1 to 1 of 1 entries

PREVIOUS 1 NEXT

LIST CIRCUIT

#	Tools Name	Unit	Unit Price	Expire Date	Total Price	Date	Last Repair Date	Repairing Cost	Action
---	------------	------	------------	-------------	-------------	------	------------------	----------------	--------

Figure 5.2.2: Return Product.

View Subcategory Page: Following this figure 5.2.3 only admin can view Subcategory and change any subcategory any time .This page for making uses language database, PHP and CSS.

Asset Monitor

Account

MAIN

- Dashboard
- Userlist
- Add User
- Profile
- Add Categories
- Add Products
- Add Previlliges
- Monitor PLC
- Monitor Computer Club
- Monitor Circuit Lab
- Monitor Equipments
- Asset History
- Assigned Asset

Free Asset List

LIST COMPUTER LAB

Show 10 entries

Search:

#	Tools Name	Unit	Unit Price	Expire Date	Total Price	Date	Last Repair Date	Repairing Cost	Employee Name	Status
1	Computer	10	20000	22/02/2022	200000	2020-12-05 15:47:38	2020-12-12	800	abul	Free

Showing 1 to 1 of 1 entries

PREVIOUS

1

NEXT

LIST CIRCUIT

#	Tools Name	Unit	Unit Price	Expire Date	Total Price	Date	Last Repair Date	Repairing Cost	Employee Name	Status
1	Wire	10	5	22/02/2022	50	2020-12-05 15:48:11			Riasatul Islam Hasnain	Free

Figure 5.2.3: View Subcategory Page.

Add Package Page: Following this figure 5.2.4 only admin can add new employee for assigning new assets and change any package any time .This page for making uses language database, PHP and CSS.

CHAPTER 6

SYSTEM TESTING AND COMPONENT TESTING

6.1 System Testing and Component Testing

System testing involves integrating two or more system parts as it refers to the system's functionality and running an embedded system-wide test. The software has been screened for Internet Explorer 8, Google Chrome and Opera 35.0 with Web browsers. The Software was also tested using Windows Operating System.

Component testing also known as module testing is the method of testing the system's individual parts to determine whether their required functionality is being fulfilled. It enables to discover defects in a system's parts or modules; ensuring that all component defects are exposed for correction. Component testing is crucial as it helps to discover bugs before testing for inclusion.

6.2 User Validation Page

The user validation page is shown in Figure 6.2. In the event that a user who intends to access the system but ends up entering a wrong username or password, the system displays a warning message showing "Invalid username or password" but gives the user another attempt to enter the correct details before redirecting to the homepage.

The screenshot displays the 'Add Users' interface within the 'Asset Monitor' application. On the left, a dark sidebar contains a 'MAIN' menu with options: Dashboard, Userlist, Add User, Profile, Add Categories, Add Products, Add Privileges, Monitor PLC, Monitor Computer Club, Monitor Circuit Lab, Monitor Equipments, Asset History, and Assigned Asset. The main content area is titled 'Add Users' and contains a registration form. The form fields are: 'Name*' (text input), 'Email*' (text input with 'admin' pre-filled), 'Password*' (password input with masked dots), 'Department*' (text input), 'Gender*' (dropdown menu with 'Select' as the current choice), and 'Phone*' (text input). A blue 'Register' button is positioned below the 'Name' and 'Password' fields. In the bottom right corner of the application window, a watermark reads 'Activate Windows Go to Settings to activate Windows.'

Figure 6.2: User Validation Page

6.3 Message verification page

Figure 6.3 demonstrates a module for verification. A department manager with system results, asset management product or data issues will send a message to the administrator. The administrator reacts to the message after which a confirmation message shows that “a message has been delivered effectively” to the administrator.

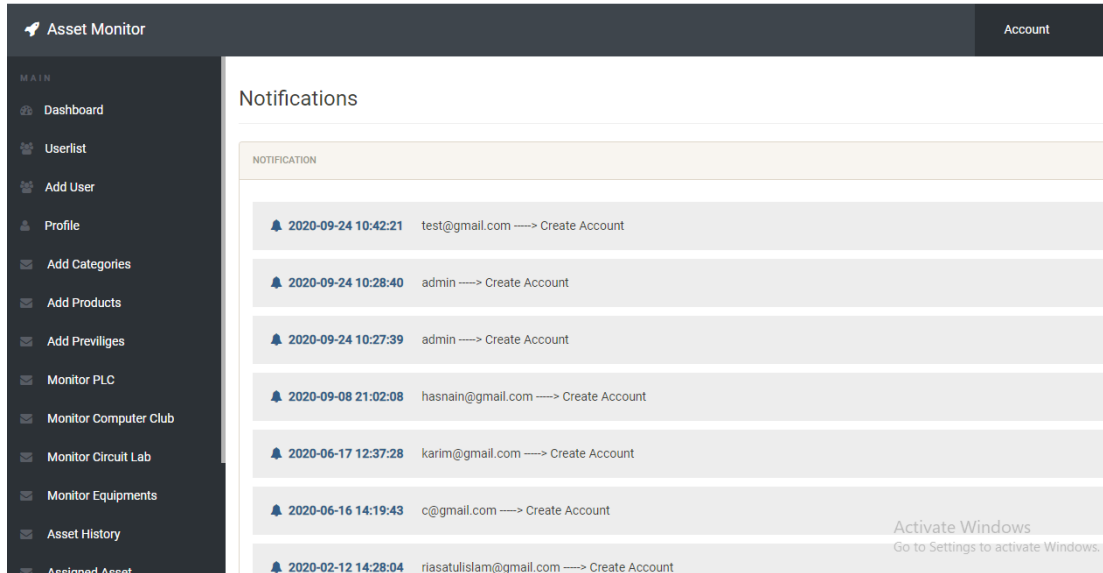


Figure 6.3: Message verification page

6.4 Database Testing

Database testing is vital as it helps to identify mistakes that may influence system efficiency reliability, consistency, and safety. It also helps validate the scheme against the user’s necessity. Database testing is vital to acquire a database system that meets the acid characteristics of a database management system [12]. Following this figure 6.4 record all categories.

Table	Action	Rows	Type	Collation	Size	Overhead
<input type="checkbox"/> admin	★ Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16.0 KiB	-
<input type="checkbox"/> category	★ Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16.0 KiB	-
<input type="checkbox"/> circuit	★ Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16.0 KiB	-
<input type="checkbox"/> computer_club	★ Browse Structure Search Insert Empty Drop	3	InnoDB	latin1_swedish_ci	16.0 KiB	-
<input type="checkbox"/> deleteduser	★ Browse Structure Search Insert Empty Drop	6	InnoDB	latin1_swedish_ci	16.0 KiB	-
<input type="checkbox"/> equipment	★ Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16.0 KiB	-
<input type="checkbox"/> feedback	★ Browse Structure Search Insert Empty Drop	0	InnoDB	latin1_swedish_ci	16.0 KiB	-
<input type="checkbox"/> notification	★ Browse Structure Search Insert Empty Drop	14	InnoDB	latin1_swedish_ci	16.0 KiB	-
<input type="checkbox"/> plc	★ Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16.0 KiB	-
<input type="checkbox"/> privilege	★ Browse Structure Search Insert Empty Drop	13	InnoDB	latin1_swedish_ci	16.0 KiB	-
<input type="checkbox"/> product	★ Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16.0 KiB	-
<input type="checkbox"/> users	★ Browse Structure Search Insert Empty Drop	6	InnoDB	latin1_swedish_ci	16.0 KiB	-
12 tables	Sum	48	InnoDB	utf8mb4_general_ci	192.0 KiB	0 B

Figure 6.4: Database Table Image

Contact Table Image: Figure 6.4.1 demonstrates the system’s contact table image. The table contains user

emails related to their system and asset management products suggestions and complaints. It also allows for adequate identification the user information as well as the topic of the message.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	contactid	int(50)			No	None		AUTO_INCREMENT	Change
2	Name	varchar(50)	latin1_swedish_ci		No	None			Change
3	Phno	varchar(50)	latin1_swedish_ci		No	None			Change
4	Email	varchar(50)	latin1_swedish_ci		No	None			Change
5	Message	varchar(5000)	latin1_swedish_ci		No	None			Change

Figure 6.4.1: Contact Table Image

User Table Image: Figure 6.4.2 is used to store user information that has been enrolled with the scheme. The data stored in the user table is primarily the user input data during the registration process.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(50)			No	None			Change
2	tools_name	varchar(50)	latin1_swedish_ci		No	None			Change
3	unit	int(50)			No	None			Change
4	per_price	int(50)			No	None			Change
5	total_price	int(50)			No	None			Change
6	date	datetime			No	None			Change
7	expire_date	datetime			No	None			Change
8	last_repair_date	datetime			No	None			Change
9	repairing_cost	int(50)			No	None			Change
10	status	int(50)			No	None			Change
11	e_name	varchar(50)	latin1_swedish_ci		No	None			Change
12	returnp	varchar(50)	latin1_swedish_ci		No	None			Change

Figure 6.4.2: Product Table Image

6.5 Test Results and Reports

Test report is required to formally reflect test outcomes, which provides a chance to rapidly estimate test outcomes. It is a document that records information from an assessment experiment in an organizational way, describes environmental or working circumstances, and demonstrates the comparison of test outcomes with goals.

The following characteristic of the visitors is the usability testing. So at the end I can perform the outcomes as the advantages to the end user or the learner of usability testing:

- Better website for quality and education.
- It was readily used by any user.
- Users accept it more easily.
- More Information.
- Better UI.
- Low cost service.

CHAPTER 7

CONCLUSION AND FUTURE SCOPE

7.1 Discussion and Conclusion

The support system for asset management information demonstrates to be a powerful system that has followed all industrial norms. Standardization applies to all tables. Also mentioned are the functional dependencies. Working with such a scheme can allow the user to obtain any data with low performance costs and higher efficiency. Due to the excellent design of the database, the system can meet any requirement in the algebraic-related translation demonstrates that the database is correctly designed. After connecting with the application through the local host its overall features and functionalities just work fine. This application workflow and beautiful design are user-friendly and efficient enough to work with. I have encouraged to developing this type of application because I think our education system is backdated than other developing countries and student of my countries lagging behind the other countries. So that's why we think to do something that helps our student society to turnaround from this bad situation. I created a student community that helps students to interact with each other, as mentioned, it can motivate user [9].

7.2 Scope for Future Developments

The system has been developed with future development possibilities in consideration. The proposed system should have the following facilities to serve the better service to the tourist [10].

- Getting all the information about the asset in more details through web service and desktop client or Email.
- SMS based alter system of this department time to a monitoring asset.
- Automated mapping system to help the asset find their monitoring asset.
- Knowing depreciation rate of asset in every department.

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