Agriculture Equipment Portal

Final Year Project

Session2019-2021

A project submitted in partial fulfillment of the degree of

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Department of Information Technology

Faculty of Computer Science& Information Technology

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Type (Nature of project)	[✓] **D**evelopment [ ] **R**esearch [] **R&D**
Area of specialization	
FYP ID	FYP-MCSM-S20-008

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*The candidates confirm that the work submitted is their own and appropriate credit has been given where reference has been made to work of others

Plagiarism Free Certificate

This is to certify that, I **Zainab Fatima** S/**D** of **Ghafoor Ahmad**, group leader of FYP under registration no **FYP-MCSM-S20-008** at Department of Information Technology, The Superior College, Lahore. I declare that my FYP report is checked by my supervisor.

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Designation: Lecturer CS&IT

Signature: _____

HOD: Dr. Asad Ali Naqvi

Signature: _____

Project Report

Agriculture Equipment Portal

Change Record

Author(s)	Version	Date	Notes	Supervisor's Signature
Zainab,Farwa,Zaman	1.0	05-04-2020	<Original Draft>	
Zainab,Farwa,Zaman	1.1	09-05-2020	<Changes Based on Feedback from Supervisor>	
Zainab,Farwa,Zaman	1.2	14-06-2020	<Changes Based on Feedback From Faculty>	
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Zainab,Farwa,Zaman	1.4	2-2-2021	<Changes Based on Feedback from Supervisor>	

APPROVAL

PROJECT SUPERVISOR

Comments: _____

_____

Name:_____

Date:_____ Signature:_____

PROJECT MANAGER

Comments: _____

_____

Date:_____ Signature:_____

HEAD OF THE DEPARTMENT

Comments: _____

_____

Date:_____ Signature:_____

Dedication

This Agriculture Equipment Portal is lovingly dedicated to our parents who have been constant source of inspiration. They have given us the drive and discipline to tackle any task with interest and determination. Without their love and support this project would not have been made possible.

Acknowledgements

In the name of Allah, the Most Gracious and the Most Merciful Alhamdulillah, all praises to Allah for the strengths and His blessing in completing this project.

We have taken efforts in this project. However, In the name of Allah, the Most Gracious and the Most Merciful Alhamdulillah, all praises to Allah for the strengths and His blessing in completing this project.

We have taken efforts in this project. However, it would not have been possible without the kind support and help of our project supervisor **Mr. Rohail Shehzad** (Lecturer CS&IT)

We would like to extend our sincere thanks to him.

We are highly indebted to all respected Faculty members of Department of Computer Science, University of Superior Lahore campus for their guidance and constant supervision as well as for providing necessary information regarding the project and also for their support in completing the project.

Our thanks and appreciations also go to our friends who have willingly helped us out with their abilities.

Executive Summary

Agriculture is one of the best portal system that can be used by farmers according their current needs. By using our Agriculture equipment portal people will be able to order any type of agricultural equipment with just one click. It is time saving and energy saving. Users can easily visit online Portal while sitting at home. It is time saving. Our project is a generalize Portal. User could be able to access our Portal from mobile browser. It's not necessary or users haven't to use only windows browser to get access. Our site going to contain user friendly interface also will provide the facility to user for registration and login easily and quickly by providing general information. Agriculture is fast growing business. More and more business houses are implementing web portal providing functionality for performing commercial transactions over the portal. It is reasonable to say that the process of Agriculture Equipment on the web is becoming place. Agriculture Equipment Portal will give the facility to general people to buy and take equipment's on rent.

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Chapter 1

Introduction

Chapter 1: Introduction

As we know that Pakistan is a agricultural country and our economic system very relay on our agriculture, But there are a lot of problem in our agriculture system that are bad effect on our agricultural products .First one is lack of agricultural machinery .Agriculture machinery is machinery used in farming or other agriculture. There are many types of such equipment, from hand tools and power tools to tractors and the countless kind of farm implement that they tow or operate. Diverse arrays of equipment are used in both organic and nonorganic farming .We provides a platform that helps the farmers where he books those equipment's that they want. Farmer also posts the equipment's that they have and they want to rent out them. This portal enhances the product of agricultural products in easy way. The machines and equipment which helps them a lot for completing the farming tasks more easily and efficiently. We make awareness for the farmer that in which season they can grow what they want.

1.1. Background

Agriculture is fast growing business. More and more business houses are implementing web portal providing functionality for performing commercial transactions over the portal. It is reasonable to say that the process of Agriculture Equipment on the web is becoming place. Agriculture Equipment Portal will give the facility to general people to buy and take equipment's on rent.

1.2. Motivations and Challenges

Develop a system that will allow Farmers to place their order ,Also with the detail of Equipment online, tracking the orders is done easily, it maintain Farmer's database and improve the service.

- Make a User friendly system
- Work with Database
- System Design

1.3. Goals and Objectives

- Developing a system that will allow farmers to place their order online and provide them with feedback, a generic image of Equipment, a list of Equipment's or cost information.
- We will provide the awareness about farming that facilitates the farmers.
- Developing agriculture Equipment Portal to help the farmers in farming process
- We also provide facilities of renting equipment to our farmers
- The farmers can sell their Equipment and the Customers can buy that Equipment

1.4. Literature Review/Existing Solutions

It is estimated that a major portion of the farming budget is required not only to buy equipment but for upkeep and repair of equipment. Farmers have so many issues to maintain their equipment and take care of them.

1.5. Gap Analysis

Most of the farmers have no idea about the technology; poor access of technology and economic condition. New person has lack of knowledge about farming. Farmers have issues to maintain the equipment's and tools and take care of them.

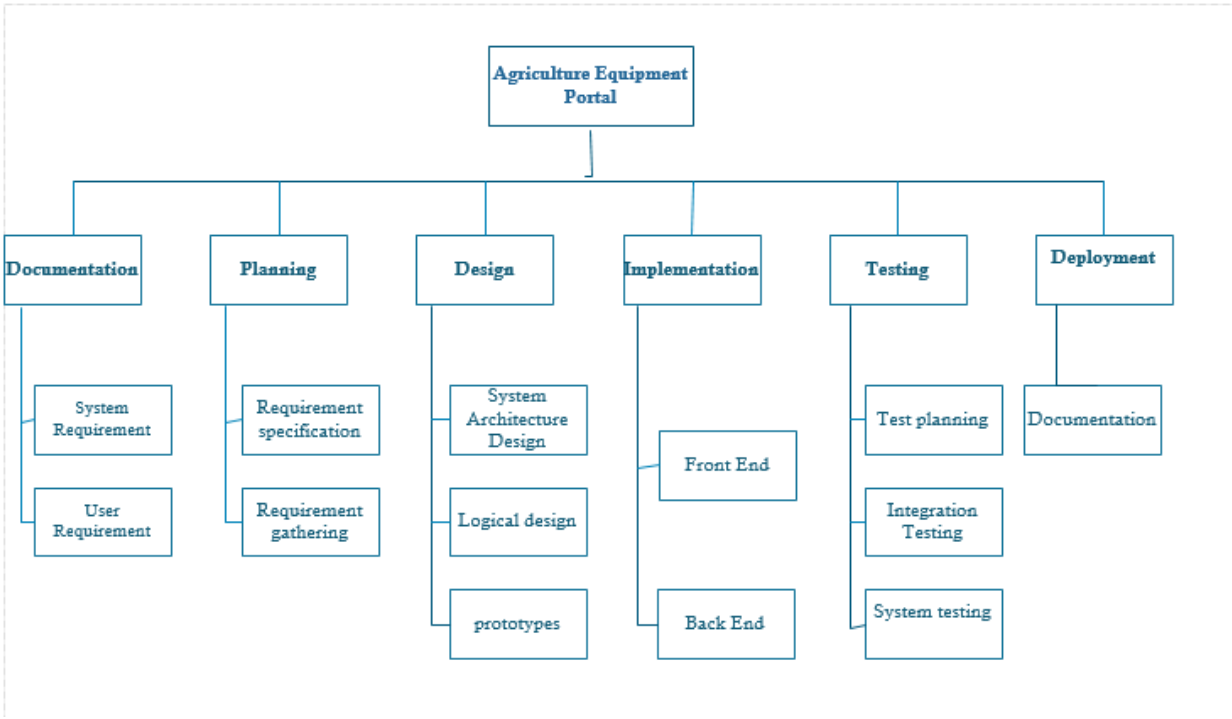
1.6. Proposed Solution

Our proposed system is an Agriculture Equipment Portal that enables ease for the farmers, the main purpose of the project is to design a complete website to solve the problems of the farmers and identify how business processes handle by an information technology solution. Our system provides awareness of technology to farmer's .New person has lack of knowledge about farming. The machines and equipment which helps them a lot for completing the farming tasks more easily and efficiently. We make awareness for the farmer that in which season they can grow what they want. We give awareness to farmers about fertilization. We also provide facilities of renting equipment to our farmers. we also sale equipment to our farmers. We also add the feature of calculating average of fields which the farmers grow in the whole year.

1.7. Project Plan

The main purpose of the project is to design a complete website to solve the problems of the farmers. We have designed breakdown structure in which we distributed our work in different stages, Also we have planned Gantt chart divided

1.7.1. Work Breakdown Structure

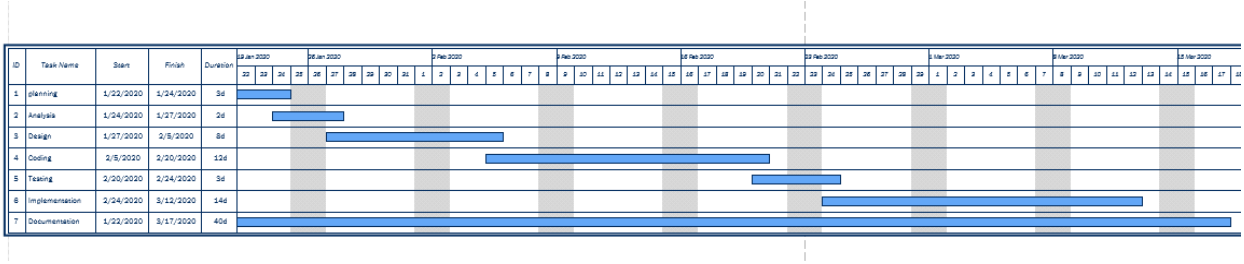


1.7.2. Roles & Responsibility Matrix

WBS #	WBS Deliverable	Activity #	Activity to Complete the Deliverable	Duration (# of Days)	Responsible Team Member(s) & Role(s)
1.0 2.0	Proposal Document Part-2	1.1	Gathering of data Eliminate our mistakes Specification	6 5	Zaman Hussain Farwa Arif Zainab Fatima Zaman Hussain Farwa Arif Zainab Fatima

1.2	Part-1 Documentation	1.2	Front End & Backend	7	Zaman Hussain Farwa Arif Zainab Fatima
1.3	Part-2 Documentation	1.3	Database	10	Zaman Hussain Farwa Arif Zainab Fatima
1.4	Documentation complete	1.4	Documentation	90	Zaman Hussain Farwa Arif Zainab Fatima

1.7.3. Gantt Chart



1.8. Report Outline

Agriculture is one of the best portal system that can be used by farmers according their current needs. By using our Agriculture equipment portal people will be able to order any type of agricultural equipment with just one click. It is time saving and energy saving. Users can easily visit online Portal while sitting at home we will provide the awareness about farming that facilitates the farmers, Developing agriculture Equipment Portal to help the farmers in farming process.

We also provide facilities of renting equipment to our farmers. The farmers can sell their Equipment and the Customers can buy that Equipment

Chapter 2

Software Requirement Specifications

Chapter 2: Software Requirement Specifications

2.1. Introduction

A software requirements specification (SRS) is a document that captures complete description about how the system is expected to perform. It is usually signed off at the end of requirements engineering phase.

2.1.1. Purpose

The main purpose of Agriculture Equipment Portal is to provide farmers for a way to place an order over the internet. This project deals with the 'Agriculture Equipment Portal'. The system is used for daily activities such as order an Equipment; maintaining details; maintain farmers details; and maintaining records details, etc.

So why is this important?

The main reason is that it benefits both the farmer and the business.

2.1.2. Document Conventions

SQL	Structured query language
HTML	Hypertext Markup Language
CSS	Cascading Style Sheet
DB	Database
PHP	Hypertext Preprocessor
ER	Entity Relation

2.1.3. Intended Audience and Reading Suggestions

This project is a prototype for the Agricultural equipment portal. This has been implemented under the guidance of university professors. This Agricultural equipment portal is useful for the team and as well as to the Farmers.

2.1.4. Product Scope

We are going to develop an agricultural equipment portal which will be used for take equipment's on rent also sell them, etc. There is no portal who providing these services so it become very useful portal for taking agricultural equipment's purposes. The main scope of our project is to provide facilitates to the farmers to place their order online.

2.1.5. References

2.2. Overall Description

2.2.1. Product Perspective

Agriculture Equipment portal which will be used for take equipment's on rent also sell them, etc. There is no portal who providing these services so it become very useful portal for taking agricultural equipment's purposes

So following are disadvantages of the old system.

- Time consuming and effort for updating
- Less efficient and accurate
- Take a lot of paper work
- Slow data processing
- Not user friendly environment

2.2.2. Product Functions

Farmer should be able to do the following functions:

- Register him through entering general info.
- Login himself to the site.
- View Agricultural info
- View Equipment
- Take on rent
- Sell Equipment
- Payment
- Sent Feedbacks
- Logout through the site.

Admin should be able to do the following functions:

- Login himself to the site.
- Approve Farmer
- View Booking
- Resolved Reported Issues
- Check Payment
- Logout through the site

2.2.3. User Classes and Characteristics

Users of this Agriculture Equipment Portal are farmers and the administrators who maintain the Portal. Farmers are assumed to have basic knowledge of computers and Internet browsing. Administrators of the system should have more knowledge of internal modules of the system and are able to rectify small problems that may arise due to disk crashes, power failures.

2.2.4. Operating Environment

- Minimum window XP
- Window VISTA, Better for window 8,9,10.
- Agricultures Equipment is a Portal which operates in all browsers, for a model we are taking Google Chrome, Mozilla Firefox.

2.2.5. Design and Implementation Constraints

- All the inputs should be checked for validation and messages should be given for the improper data. The invalid data are to be ignored and error messages should be given.
- Details provided by the Farmer during his sign up should be stored in database.
- While adding the Equipment to the system, mandatory fields must be checked for validation whether the Farmer has filled appropriate data in these mandatory fields. If not, proper error message should be displayed or else the data is to be stored in database for later retrieval.
- Responsive Portal

- Unique design
- SQL commands

2.2.6. User Documentation

The system shall provide a very simple interface which should be user friendly and easy for them to understand and operate better.

2.2.7. Assumptions and Dependencies

The SRS assumes that none of the constituent system components will be implemented as embedded applications. The implication is that the target hardware will provide standalone program. Roles and tasks are predefined.

2.3. External Interface Requirements

2.3.1. User Interfaces

Each part of the user interface intends to be as user friendly as possible. The fonts and buttons used will be intended to be very fast and easy to load on Portal. The pages will be kept light in space so that it won't take a long time for the page to load.

2.3.2. Hardware Interfaces

- Windows.
- A browser which supports CGI, HTML & JavaScript

2.3.3. Software Interfaces

- Operating system
- We have chosen Windows operating system for its best support and user-friendliness.
- Database
- To save the Farmers records, Order details we have chosen SQL+ database.
- HTML JAVA
- To implement the project we have chosen HtMl, CSS, PHP, and JAVA for its more interactive support.

2.3.4. Communications Interfaces

- Our Portal provides the feature for owner of site to make a login. Login will provide the security to owner all data and site.
- Owner will able to login and make changes according his desire.
- The second feature of our site is we will provide the service of registration to every customer.
- So customer could be easily get registered by providing some basic information.

2.4. System Features

System features are as follows as:

2.4.1. Login

2.4.1.1. Description and Priority

Login priority is matter in case if a user to want to take something from Portal. If it is login module then without login the login module is useless.

2.4.1.2. Stimulus/Response Sequences

- System will display login form.
- System will validate and verify the details.
- System will display the dashboard.

2.4.1.3. Functional Requirements

REQ-SF1-1: Internet facility or availability

2.4.2. Registration

2.4.2.1. Description and Priority

Farmer uses it to Registered himself into the Portal

2.4.2.2. Stimulus/Response Sequences

- Farmer opens portal
- Farmer select a signup Form and enters all required information’s
- Signup themselves into the system

2.4.2.3. Functional Requirements

REQ-SF2-2: Must visit the Agriculture Equipment Portal

2.4.3. System Feature 3 (and so on)

2.5. Other Nonfunctional Requirements

2.5.1. Performance Requirements

Availability:

Website should be available all time.

Reliability:

They system should be logically reliable.

Recoverability:

In the case of any breakdown the system should be recoverable all customer data and system data.

Maintainability:

System should be user friendly and easy to maintain.

2.5.2. Security Requirements

- All users must have significant logins and must login according to them.
- To avoid unauthorized access, logins should remain protected in times of system failure.
- No customer must have more than one account.
- Sensitive data isn't distributed among third party mediators;
- No sensitive data in backups;
- Memory is cleared and sensitive data is not stored for long;

2.5.3. Software Quality Attributes

Performance shows the response of the system to performing certain actions for a certain period of time.

- Reliability
- Availability
- Security
- Maintainability

2.5.4. Business Rules

One user have only one account on one mail account

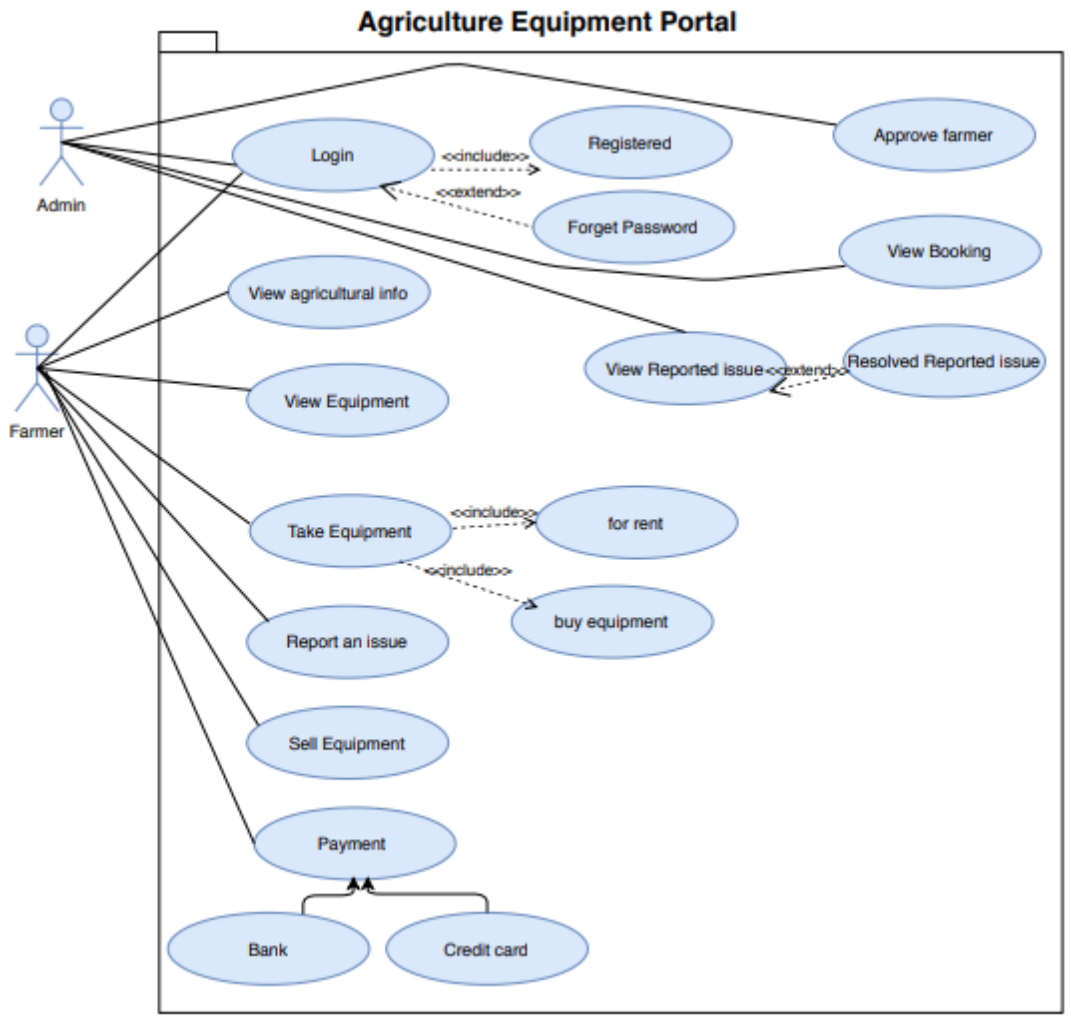
Chapter 3

Use Case Analysis

Chapter 3: System Analysis

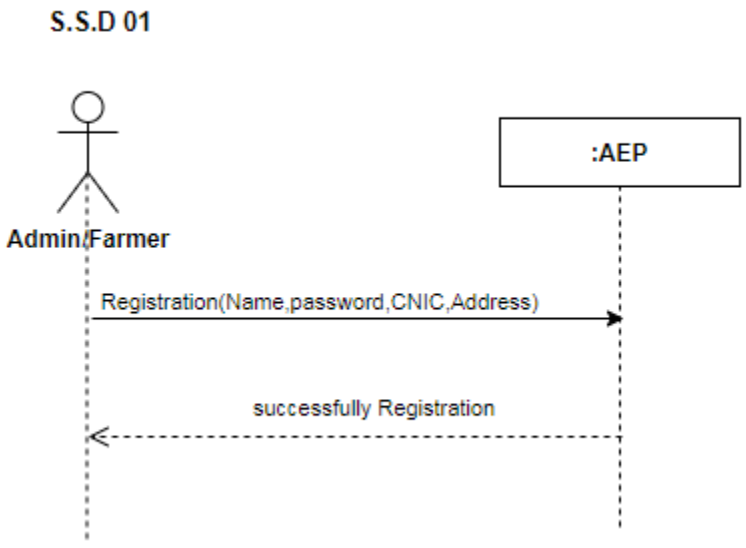
System analysis is conducted for the purpose of studying a **system** or its parts in order to identify its objectives. It is a problem solving technique that improves the **system** and ensures that all the components of the **system** work efficiently to accomplish their purpose. **Analysis** specifies what the **system** should do.

3.1. Use Case Model



3.2. Fully Dressed Use Cases

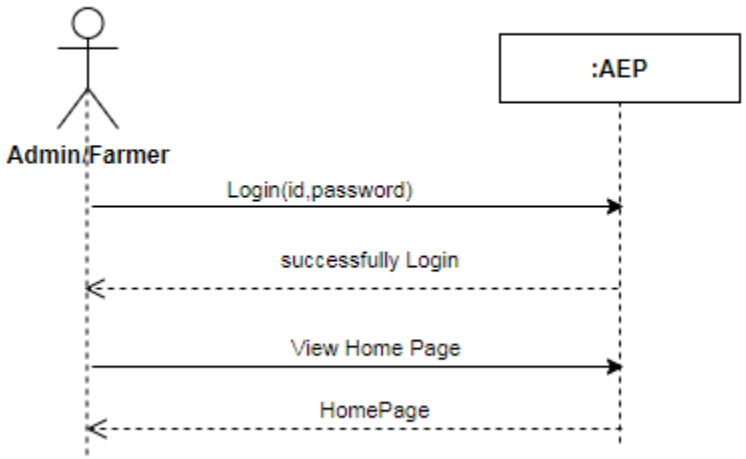
UC #	01	Ref:	
UC Name	Registration		
Description	Farmer uses it to Registered himself into the Portal		
Actor (s)	Farmer/Admin		
Stakeholders& interest	Farmer/Admin: uses it to register on the site.		
Preconditions	N/A		
Post conditions	After Register Admin/Farmer is able to view Home page		
Main Success Scenario	Action		Response
	Farmer opens Portal.		
	Farmer selects Sign up option		
	Farmer enters all required information		
	Farmer Signup themselves into the system		
Alternative Case	If the functionality fails it would be due to network problem.		
Frequency of Occurrence	If discussed per day, Customer can use this functionality only once in a lifetime.		



UC #	02	Ref:	

UC Name	Login	
Description	Farmer uses it to login himself into the Portal	
Actor (s)	Admin/Farmer	
Stakeholders& interest	Farmer: Farmer, Admin use it to Login on the Portal.	
Preconditions	Must be Registered into the system	
Post conditions	After Login customer is able to view the home page and view Equipment etc.	
Main Success Scenario	**Action**	**Response**
	Farmer opens Portal.	
	Farmer selects Sign In option	
	Farmer enters all required information	
	Farmer login themselves into the system	
Alternative Case	If the functionality fails it would be due to network problem.	
Frequency of Occurrence	If discussed per day, Customer can use this functionality only once in a lifetime.	

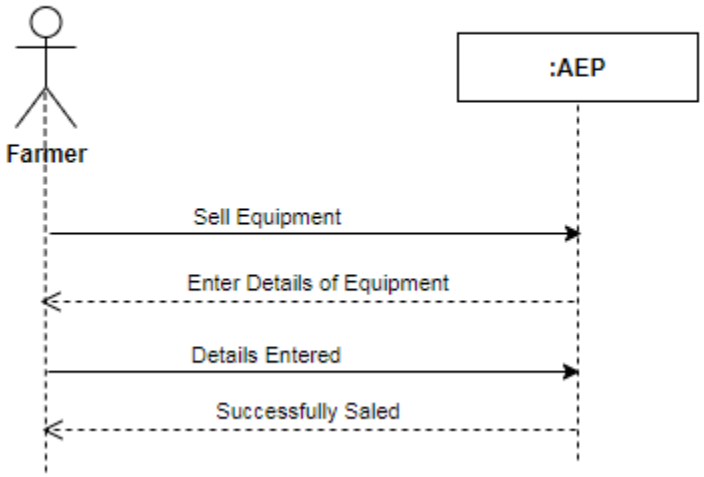
S.S.D 02



UC #	**03**	**Ref:**	
UC Name	Sell Equipment		
Description	Farmer uses it to sell the Equipment.		

Actor (s)	Farmer	
Stakeholders& interest	Farmer: Farmer uses it to sell the Equipment on the site.	
Preconditions	User must be login into the system	
Post conditions	After sell the Equipment, list will be updated.	
Main Success Scenario	**Action**	**Response**
	Farmer opens Portal.	
	Farmer selects Sell option	
	Farmer enters all required information	
	Farmer updated list of Equipment into the system	
Alternative Case	If the functionality fails it would be due to network problem.	
Frequency of Occurrence	If discussed per day, Customer can use this functionality only once in a lifetime.	

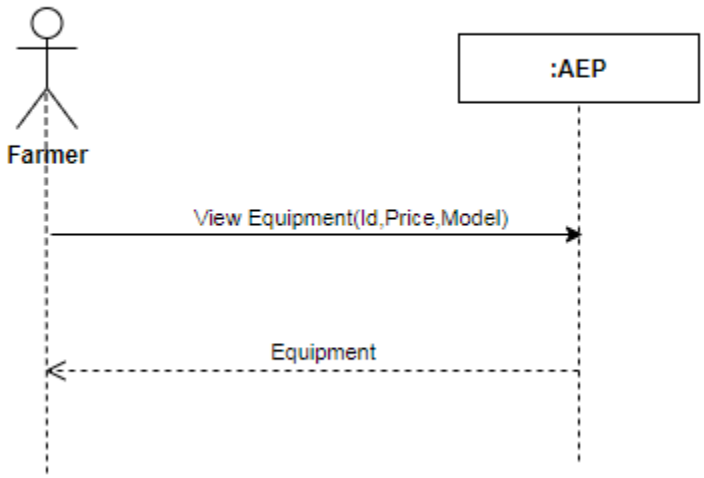
S.S.D 03



UC #	**04**	**Ref:**	
UC Name	View Equipment		
Description	Farmer uses it to view Equipment into the Portal		
Actor (s)	Farmer		
Stakeholders& interest	Farmer: Farmer uses it to View the Equipment on the site.		
Preconditions	Must be login into the system		

Post conditions	After view Equipment, Farmer is able to Buy/ take Equipment on rent.	
Main Success Scenario	**Action**	**Response**
	Farmer opens Portal.	
	Farmer selects View Equipment option	
	Farmer enters all required information	
	Farmer view Equipment on the list of equipment into the system	
Alternative Case	If the functionality fails it would be due to network problem.	
Frequency of Occurrence	If discussed per day, Customer can use this functionality only once in a lifetime.	

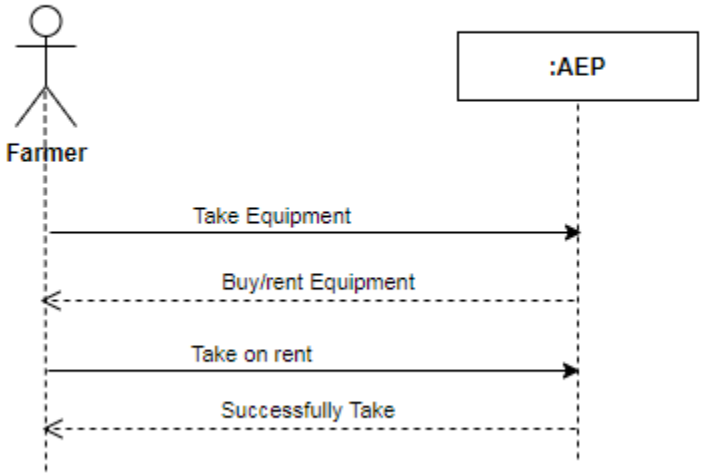
S.S.D 04



UC #	**05**	**Ref:**	
UC Name	Take Equipment		
Description	Farmer uses it to take Equipment into the Portal		
Actor (s)	Farmer		
Stakeholders& interest	Farmer: Farmer uses it to take Equipment on the site.		
Preconditions	Must be login into the system		
Post	After Take Equipment, Farmer is able to Buy/ take Equipment on		

conditions	rent.	
Main Success Scenario	**Action**	**Response**
	Farmer opens Portal.	
	Farmer selects Take Equipment option	
	Farmer enters all required information	
	Farmer Take Equipment Successfully into the system	
Alternative Case	If the functionality fails it would be due to network problem.	
Frequency of Occurrence	If discussed per day, Customer can use this functionality only once in a lifetime.	

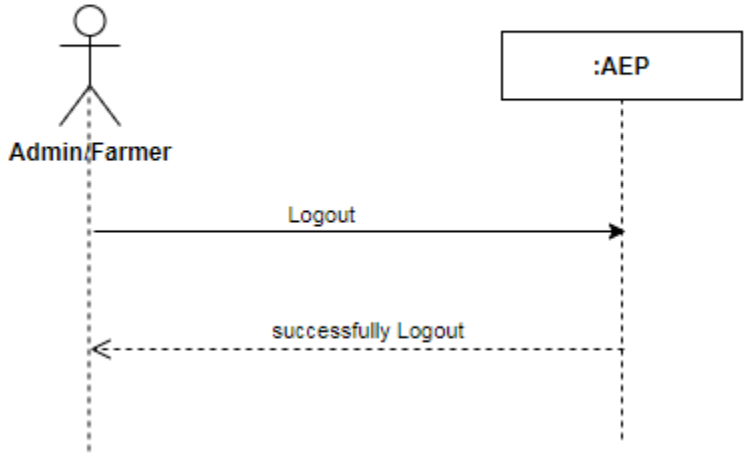
S.S.D 05



UC #	**06**	**Ref:**	
UC Name	Logout		
Description	Farmer/Admin uses it to logout himself into the Portal		
Actor (s)	Farmer		
Stakeholders& interest	Farmer: Farmer uses it to logout on the site.		
Preconditions	Must be login into the system		
Post conditions	After logout farmer will be successfully logout		
Main Success	**Action**		**Response**

Scenario	Farmer opens Portal.	
	Farmer selects Logout option	
	Farmer enters all required information	
	Farmer logout themselves into the system	
Alternative Case	If the functionality fails it would be due to network problem.	
Frequency of Occurrence	If discussed per day, Customer can use this functionality only once in a lifetime.	

S.S.D 06



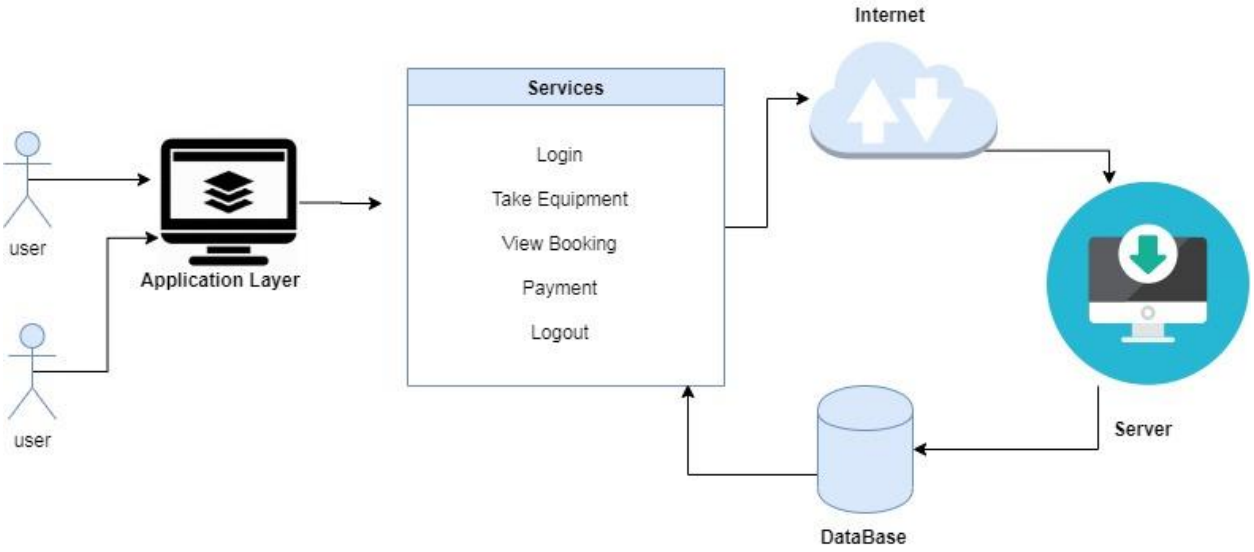
Chapter 4

System Design

Chapter 4: System Design

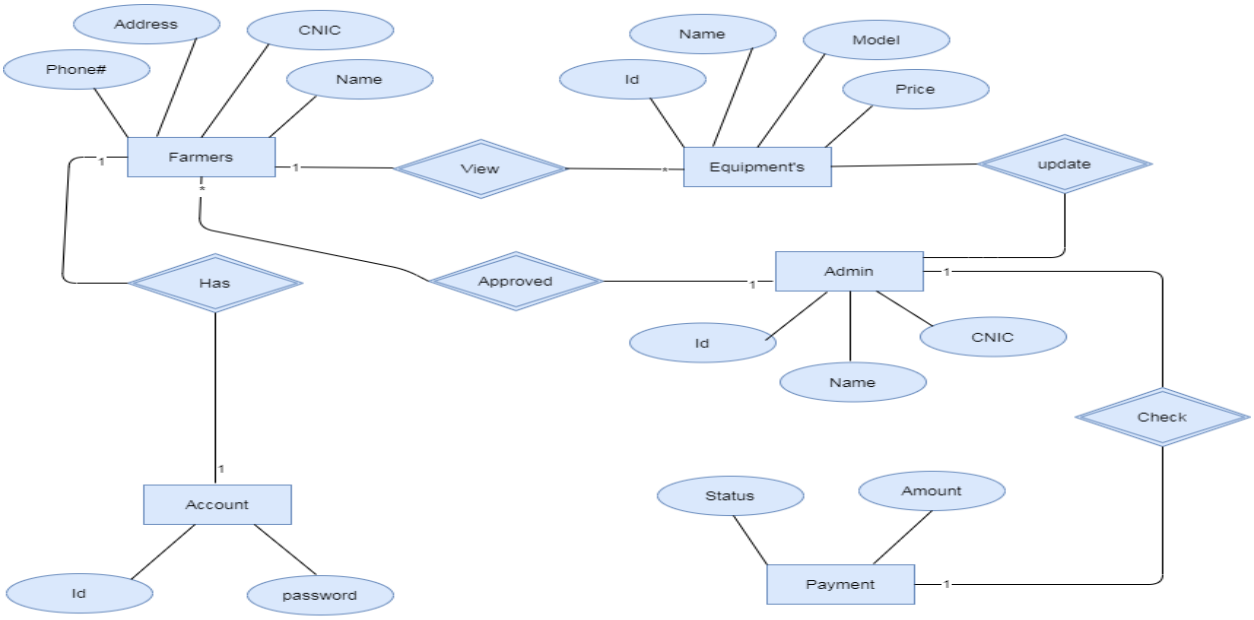
System design is the process of **designing** the elements of a **system** such as the architecture, modules and components, the different interfaces of those components and the data that goes through that **system**.

4.1. Architecture Diagram



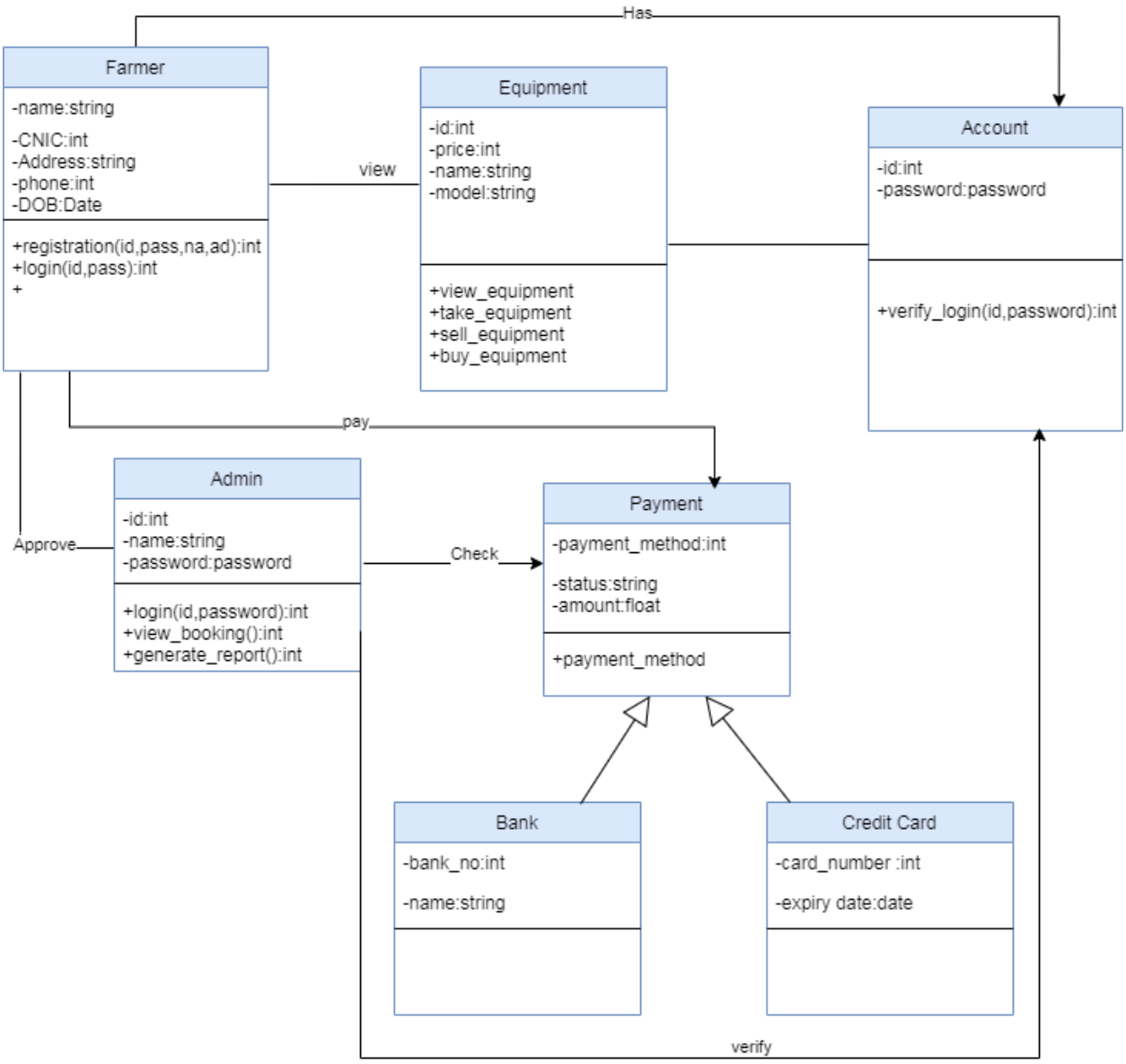
Architecture Diagram

4.2. Entity Relationship Diagram with data dictionary

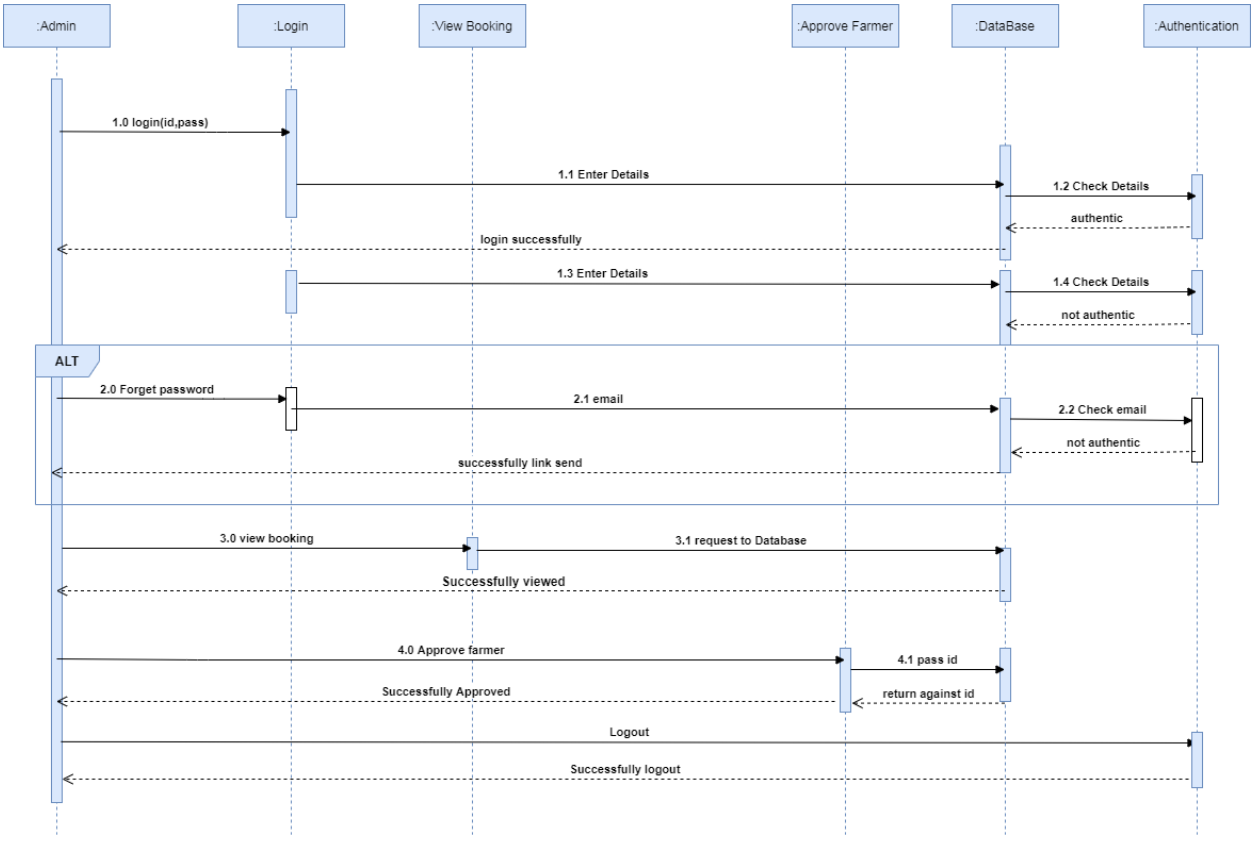


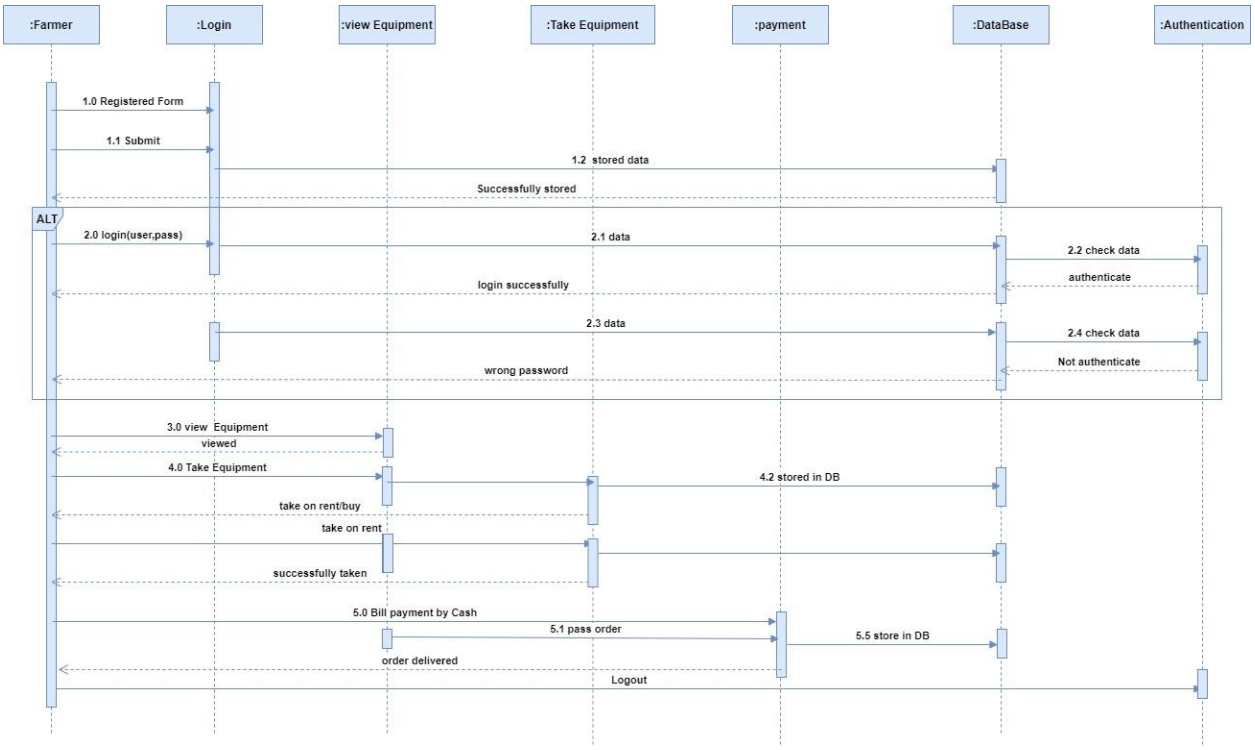
ERD

4.3. Class Diagram



4.4. Sequence / Collaboration Diagram





4.5. Operation contracts

O.C 1.0 Registration

Headings	Sub-Headings	
Operations		Register( )
Cross-Reference	**Use-Case**	Registration
	Scenario	Registration
Pre-Conditions		N/A
Post-Conditions	**Instantiation**	An instance “A” of Account was created. An instance “F” of Farmer was created.
	Attribute Modification	A.Id becomes ID. A.Name becomes Name. A.CN becomes CN A.Address becomes Address. A.CNIC becomes CNIC. A.PW becomes PW
	Association	A was associated with Farmer.

O.C 2.0 Login

Headings	Sub-Headings	
Operations		Login( )
Cross-Reference	**Use-Case**	Login, View Homepage
	Scenario	Login
Pre-Conditions		N/A
Post-Conditions	**Instantiation**	An instance “A” of Account was created. An instance “F” of Farmer was created. An instance “a” of Admin was created.
	Attribute Modification	A.Id becomes ID. A.PW becomes PW
	Association	A was associated with Admin. A was associated with Farmer.

O.C 3.0 View Equipment

Headings	Sub-Headings	
Operations		View_Equipment( )
Cross-Reference	**Use-Case**	
	Scenario	
Pre-Conditions		
Post-Conditions	**Instantiation**	View Equipment
	Attribute Modification	View_Equipment
	Association	Farmer should be logged into the system Admin should be logged into the system

O.C 4.0 Take Equipment

Headings	Sub-Headings	
Operations		Take_Equipment( )
Cross-Reference	**Use-Case**	Take Equipment
	Scenario	Take_Equipment
Pre-Conditions		Farmer should be logged into the system Admin should be logged into the system
Post-Conditions	**Instantiation**	An instance “E” of Equipment was created. An instance “A” of Admin was created.
	Attribute Modification	N/A
	Association	E was associated with Farmer. E was associated with Admin.

O.C 5.0 Payment Method

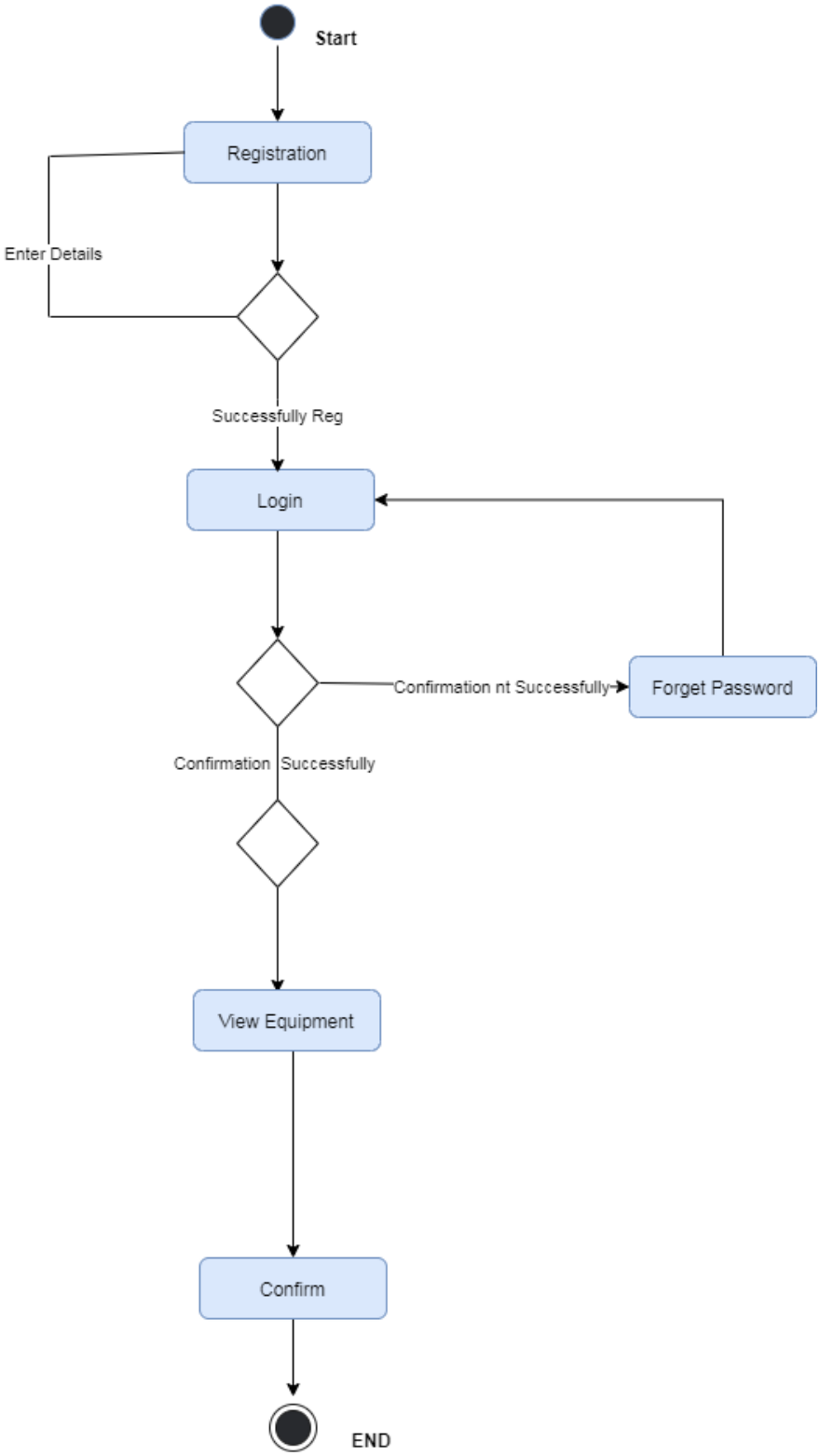
Headings	Sub-Headings	

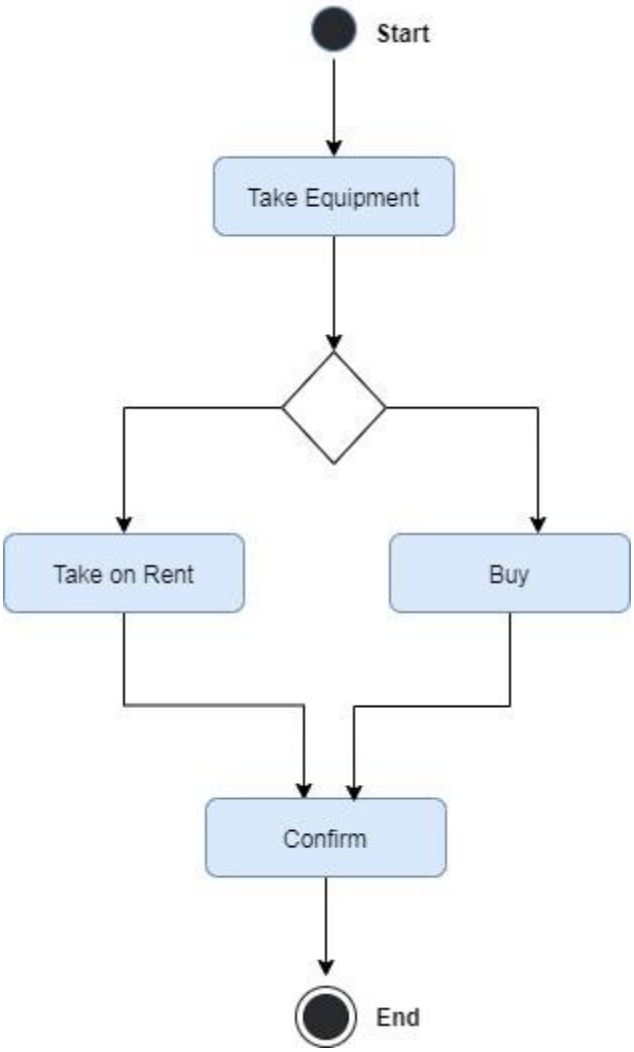
Operations		Payment_Method( )
Cross-Reference	**Use-Case**	Payment Method
	Scenario	Payment Method
Pre-Conditions		Farmer should be logged into the system Farmer must take an Equipment to select payment method
Post-Conditions	**Instantiation**	An instance “Pay” of Payment was created. An instance “F” of Farmer was created.
	Attribute Modification	N/A
	Association	Pay was associated with Farmer.

O.C 6.0 Sell Equipment

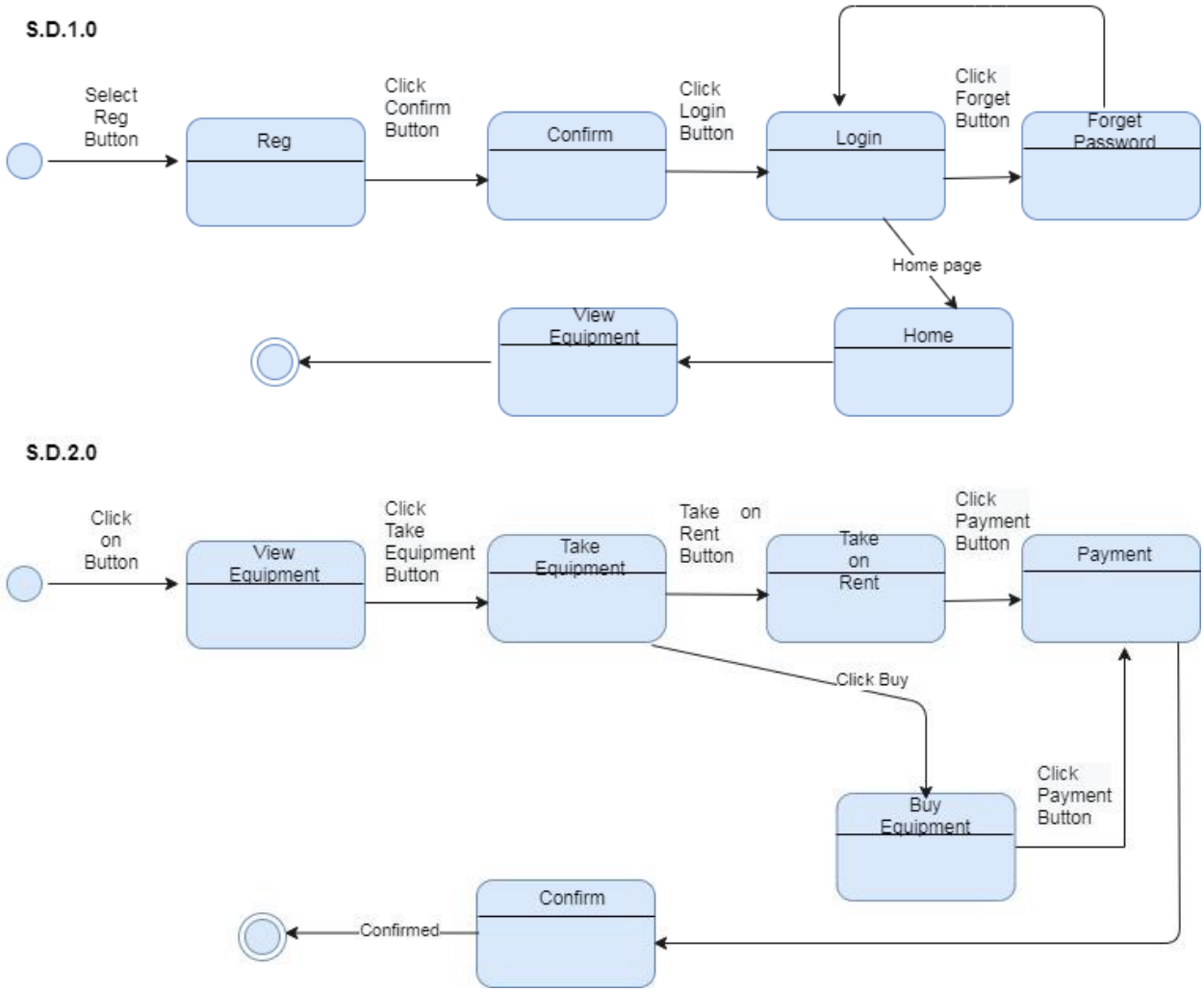
Headings	**Sub-Headings**	
Operations		Sell_Equipment( )
Cross-Reference	**Use-Case**	Sell Equipment
	Scenario	Sell_Equipment
Pre-Conditions		Farmer should be logged into the system Admin should be logged into the system
Post-Conditions	**Instantiation**	An instance “E” of Equipment was created. An instance “A” of Admin was created.
	Attribute Modification	N/A
	Association	E was associated with Farmer. E was associated with Admin.

4.6. Activity Diagram

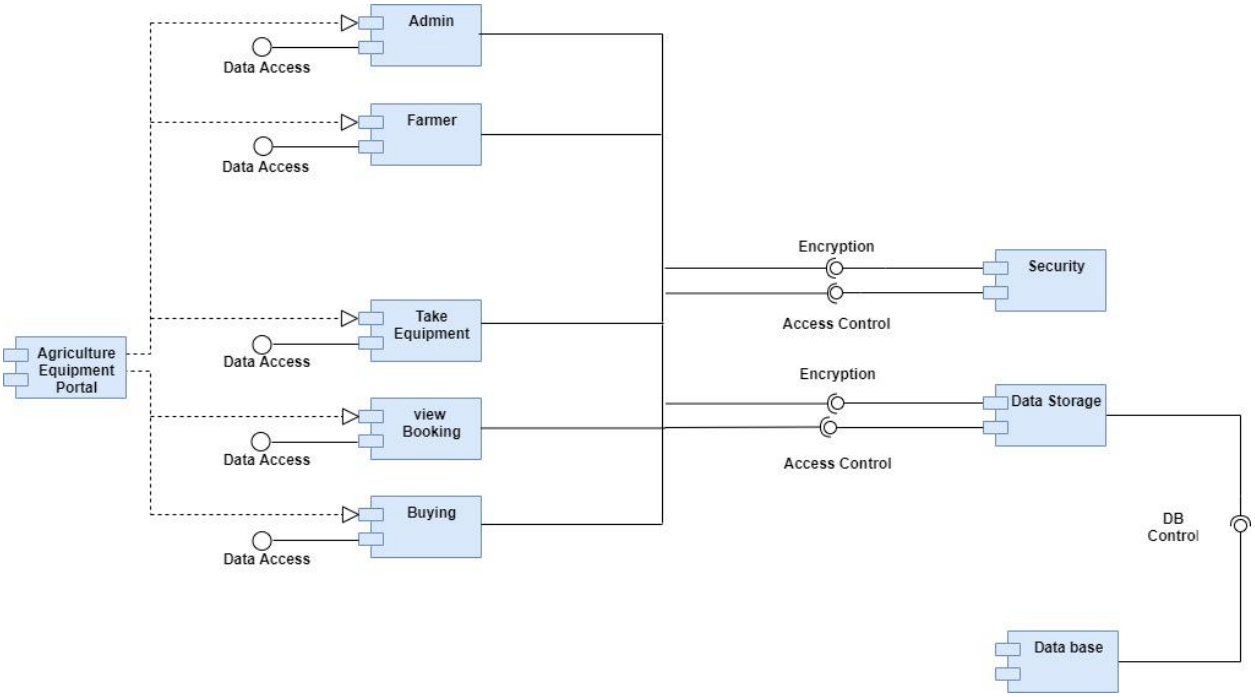



Start
Take Equipment
Take on Rent
Buy
Confirm
End

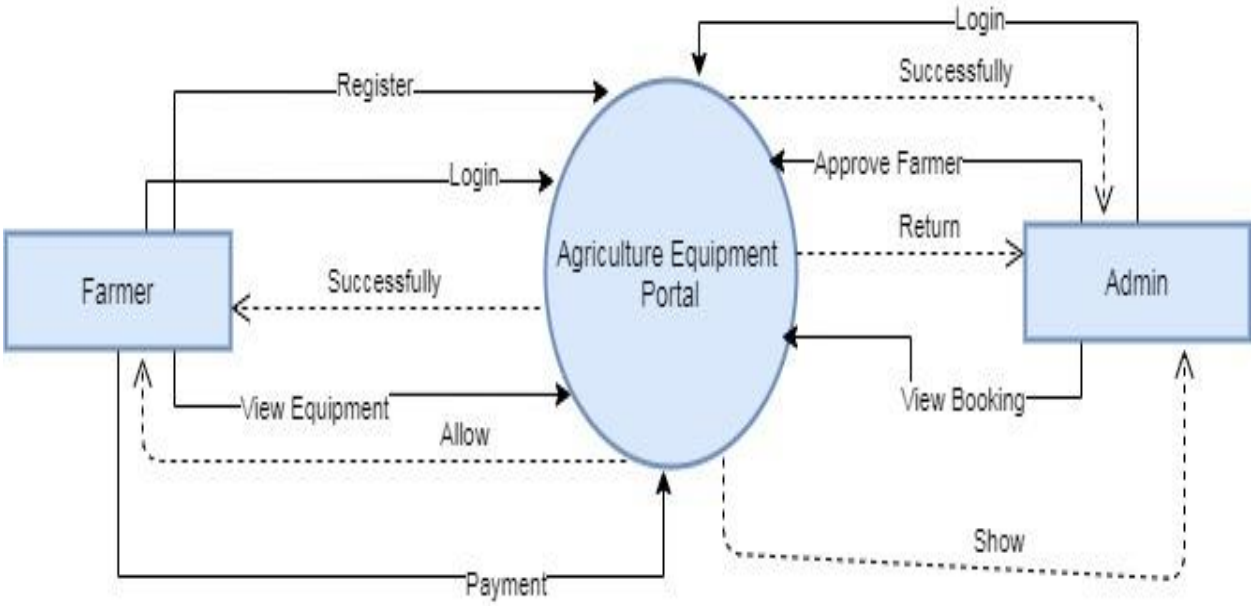
4.7. State Transition Diagram



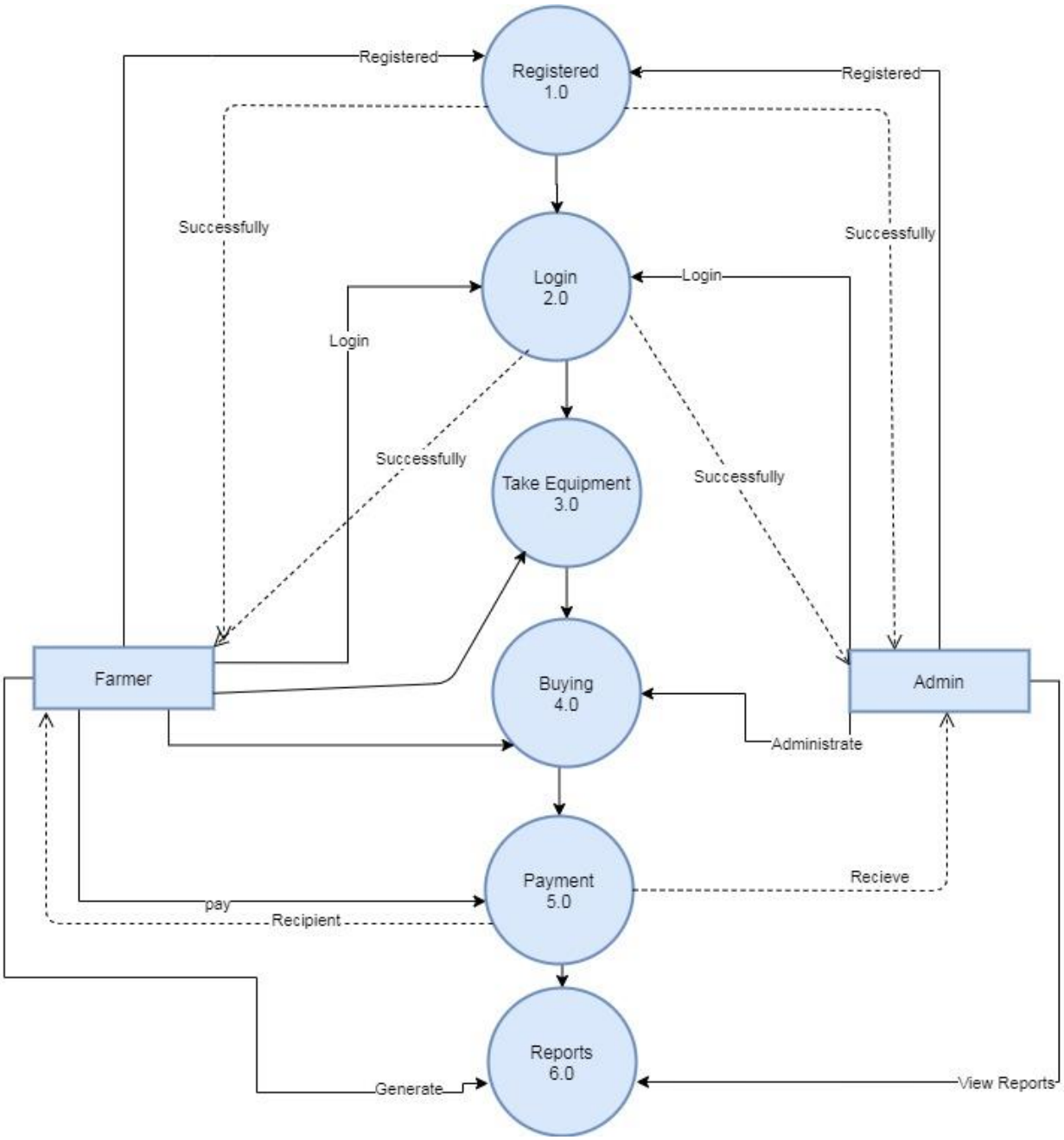
4.8. Component Diagram



4.9. Data Flow diagram



Context Level


Registered
Registered 1.0
Registered
Successfully
Successfully
Login 2.0
Login
Login
Successfully
Take Equipment 3.0
Successfully
Farmer
Buying 4.0
Admin
Administrate
Payment 5.0
Recieve
pay
Recipient
Reports 6.0
Generate
View Reports

Chapter 5

Implementation

Chapter 5: Implementation

At the end of the system design, it is the beginning for the actual coding to develop the proposed system. During development phase, the table structure of the database will be first built in order to provide a suitable data types that suit the system back end development, system connection and data transfer. Next, the computer side client program will be developed and follow by will be the web services that allow web client program to communicate with the server and lastly web side client program will be developed. In testing phase, several test cases will be carry out to test the system in order to determine the system reliability and system accuracy. According to the test cases, a system testing report will be generated for further review to figure out the system weaknesses and made improvement accordingly, how to operate the system, the procedure of handling different event and several instruction that need to be follow when operating the system.

5.1. Important Flow Control/Pseudo codes

User

Open portal→Register
Login→
Booking
Edit profile
Post
Check booking
logout

Admin
Open portal→Register
Login→
Accept/reject bookings

View bookings

Queries

View register users

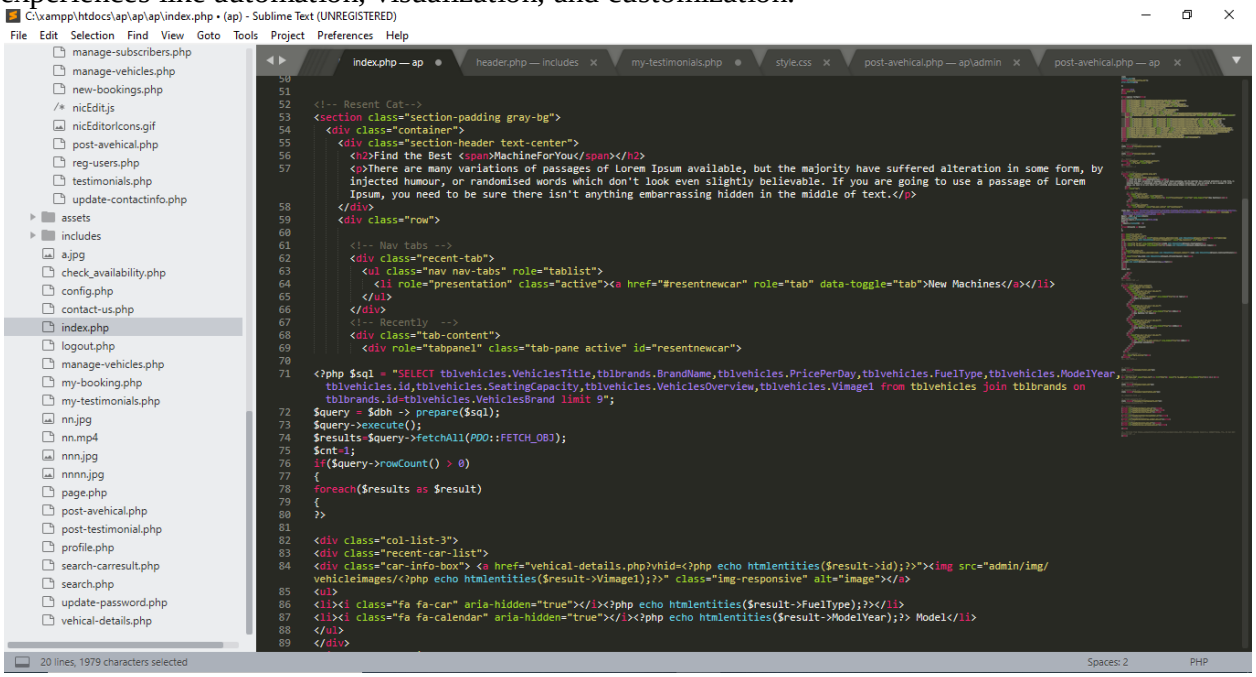
logout

5.2. Components, Libraries, Web Services and stubs

```
<link rel="stylesheet" href="assets/css/bootstrap.min.css" type="text/css">
<link rel="stylesheet" href="assets/css/style.css" type="text/css">
<link rel="stylesheet" href="assets/css/owl.carousel.css" type="text/css">
<link rel="stylesheet" href="assets/css/owl.transitions.css" type="text/css">
<link href="assets/css/slick.css" rel="stylesheet">
<link href="assets/css/bootstrap-slider.min.css" rel="stylesheet">
<link href="assets/css/font-awesome.min.css" rel="stylesheet">
                <link rel="stylesheet" id="switcher-css" type="text/css"
href="assets/switcher/css/switcher.css" media="all" />
                <link rel="alternate stylesheet" type="text/css" href="assets/switcher/css/red.css"
title="red" media="all" data-default-color="true" />
                <link rel="alternate stylesheet" type="text/css" href="assets/switcher/css/orange.css"
title="orange" media="all" />
                <link rel="alternate stylesheet" type="text/css" href="assets/switcher/css/blue.css"
title="blue" media="all" />
                <link rel="alternate stylesheet" type="text/css" href="assets/switcher/css/pink.css"
title="pink" media="all" />
                <link rel="alternate stylesheet" type="text/css" href="assets/switcher/css/green.css"
title="green" media="all" />
                <link rel="alternate stylesheet" type="text/css" href="assets/switcher/css/purple.css"
title="purple" media="all" />
<link rel="apple-touch-icon-precomposed" sizes="144x144" href="assets/images/favicon-icon/apple-
touch-icon-144-precomposed.png">
<link rel="apple-touch-icon-precomposed" sizes="114x114" href="assets/images/favicon-icon/apple-
touch-icon-114-precomposed.html">
<link rel="apple-touch-icon-precomposed" sizes="72x72" href="assets/images/favicon-icon/apple-
touch-icon-72-precomposed.png">
<link rel="apple-touch-icon-precomposed" href="assets/images/favicon-icon/apple-touch-icon-57-
precomposed.png">
<link rel="shortcut icon" href="assets/images/favicon-icon/favicon.png">
<link href="https://fonts.googleapis.com/css?family=Lato:300,400,700,900" rel="stylesheet">
```

5.3. Deployment Environment

Editing HTML and CSS code can be done with nothing but a simple text editor. However, if you'd like to take your programming skills (and output) to the next level, it's worth looking into an integrated development environment or IDE.
A Sublime text 3 IDE will allow you to code, edit, test, and debug. However, an advanced IDE, like the ones listed here, will offer many features that will enhance your programming experiences like automation, visualization, and customization.



5.4. Tools and Techniques

Techniques

HTML,CSS, Jquery, Bootstrap, Php, and other programming techniques are used to develop this website.

MySqli are used for our Database creation and data handling.

Tools

Sublime Text 3 is a flexible, free IDE for our website

Features include:

- Code autocompletion - snippets and macros
- Can be tweaked to boost productivity
- Enhanced pane management
- Go to definition
- Go to symbol

- Multiple selections
- Command palette
- Split editing
- Instant project switch
- Customizable key bindings, menus, snippets, and more

5.5. Best Practices / Coding Standards

```
<?php
session_start();
include('includes/config.php');
error_reporting(0);

?>

<!DOCTYPE HTML>
<html lang="en">
<head>

<title>agreec Portal</title>
<!--Bootstrap -->
<link rel="stylesheet" href="assets/css/bootstrap.min.css" type="text/css">
<link rel="stylesheet" href="assets/css/style.css" type="text/css">
<link rel="stylesheet" href="assets/css/owl.carousel.css" type="text/css">
<link rel="stylesheet" href="assets/css/owl.transitions.css" type="text/css">
<link href="assets/css/slick.css" rel="stylesheet">
<link href="assets/css/bootstrap-slider.min.css" rel="stylesheet">
<link href="assets/css/font-awesome.min.css" rel="stylesheet">
                <link rel="stylesheet" id="switcher-css" type="text/css"
href="assets/switcher/css/switcher.css" media="all" />
                <link rel="alternate stylesheet" type="text/css"
href="assets/switcher/css/red.css" title="red" media="all" data-default-color="true" />
                <link rel="alternate stylesheet" type="text/css"
href="assets/switcher/css/orange.css" title="orange" media="all" />
                <link rel="alternate stylesheet" type="text/css"
href="assets/switcher/css/blue.css" title="blue" media="all" />
                <link rel="alternate stylesheet" type="text/css"
href="assets/switcher/css/pink.css" title="pink" media="all" />
                <link rel="alternate stylesheet" type="text/css"
href="assets/switcher/css/green.css" title="green" media="all" />
                <link rel="alternate stylesheet" type="text/css"
href="assets/switcher/css/purple.css" title="purple" media="all" />
```

```
<link rel="apple-touch-icon-precomposed" sizes="144x144" href="assets/images/favicon-icon/apple-touch-icon-144-precomposed.png">
<link rel="apple-touch-icon-precomposed" sizes="114x114" href="assets/images/favicon-icon/apple-touch-icon-114-precomposed.html">
<link rel="apple-touch-icon-precomposed" sizes="72x72" href="assets/images/favicon-icon/apple-touch-icon-72-precomposed.png">
<link rel="apple-touch-icon-precomposed" href="assets/images/favicon-icon/apple-touch-icon-57-precomposed.png">
<link rel="shortcut icon" href="assets/images/favicon-icon/favicon.png">
<link href="https://fonts.googleapis.com/css?family=Lato:300,400,700,900" rel="stylesheet">
</head>
<body>

<!-- Start Switcher -->
<?php include('includes/colorswitcher.php');?>
<!-- /Switcher -->

<!--Header-->
<?php include('includes/header.php');?>
<!-- /Header -->

<!-- Banners -->
<section id="banner" class="banner-section">
    <img src="a.jpg" height="50%">
</section>
<!-- /Banners -->


<!-- Resent Cat-->
<section class="section-padding gray-bg">
  <div class="container">
    <div class="section-header text-center">
      <h2>Find the Best <span>MachineForYou</span></h2>
      <p>There are many variations of passages of Lorem Ipsum available, but the majority have suffered alteration in some form, by injected humour, or randomised words which don't look even slightly believable. If you are going to use a passage of Lorem Ipsum, you need to be sure there isn't anything embarrassing hidden in the middle of text.</p>
    </div>
    <div class="row">

      <!-- Nav tabs -->
      <div class="recent-tab">
        <ul class="nav nav-tabs" role="tablist">
```

```
        <li role="presentation" class="active"><a href="#resentnewcar" role="tab" data-
toggle="tab">New Machines</a></li>
       </ul>
     </div>
     <!-- Recently  -->
     <div class="tab-content">
       <div role="tabpanel" class="tab-pane active" id="resentnewcar">
```

Chapter 6

Testing and Evaluation

Chapter 6: Testing and Evaluation

This chapter is all about testing of our Portal that our Portal is proper working or not in different situations.

6.1. Use Case Testing

Login

Test case id	***TC01***
Test case Description	Login must compulsory for users
Test Procedure	Open the Portal and login to enter in the Portal.
Expected Result	Successful login
Actual Result	Successful to enter into portal
Status	Pass

Registration

Test case id	***TC02***
Test case Description	To register
Test Procedure	Click on the Register button and then register themselves to enter into portal.
Expected Result	Registration done.
Actual Result	Successful registered
Status	Pass

View Equipment

Test case id	***TC03***

Test case Description	Equipment can be added to make order.
Test Procedure	Go to the main menu Click the View Details button.
Expected Result	Details viewsuccessfully
Actual Result	Successful
Status	Pass

Book Equipment

Test case id	***TC04***
Test case Description	To book equipment
Test Procedure	After view the Equipment you want to book the equipment.
Expected Result	Equipment Book Successfully.
Actual Result	Successful
Status	Pass

Post a Machine

Test case id	***TC05***
Test case Description	Post a machine.
Test Procedure	Go to the main menu Click the Options button and press on the post a machine button.
Expected Result	Successful
Actual Result	Successful Post.
Status	Pass

6.2. Boundary value analysis

Invalid (min-1)	Valid (min, +min, -max, max)	Invalid (max+1)

User Name(-1)	User Name In Between 1-40	User Name(41)
User Password (-5)	User Password In Between 1- 40	User Password (41)
User Name Include Numeric value	User Name Include User Values	User Name Include Special Characters

6.3. Data flow testing

Data flow testing is a specific strategy of software testing that focuses on data variables and their values. It keeps a check at the data receiving points by the variables and its usage points. It is done to cover the path testing and the branch testing gap. The process is conducted to detect the bugs because of the incorrect usage of data variables or values.

6.4. Unit testing

Unit testing is a testing technique using which individual modules are tested to determine if there are any issues by the developer himself. It is concerned with functional correctness of the standalone modules. The main aim is to isolate each unit of the system to identify, analyze and fix the defects.

Advantages of unit testing:

- Reduces Defects in the Newly, developed features or reduces bugs when changing the existing functionality.
- Reduces Cost of Testing as defects are captured in very early phase.
- Improves design and allows better refactoring of code.
- Unit Tests, when integrated with build gives the quality of the build as well.

6.5. Integration testing

Integration testing is the second level of the software testing process comes after unit testing. In this testing, units or individual components of the software are tested in a group. The focus of the integration testing level is to expose defects at the time of interaction between integrated components or units. Once all the components or modules are working independently, then we need to check the data flow between the dependent modules is known as **integration testing**.

6.6. Performance testing

Performance testing is a form of software testing that focuses on how a system running the system performs under a particular load. This is not about finding software bugs or defects. Performance testing measures according to benchmarks and standards. Performance Testing should give developers the diagnostic information they need to eliminate bottlenecks.

6.7. Stress Testing

Stress testing has been made by huge uploading and testing validation all over the application. Stress testing (sometimes called torture testing) is a form of deliberately intense or thorough testing used to determine the stability of a given system or entity. It involves testing beyond normal operational capacity, often to a breaking point, in order to observe the results.

Chapter 7

Summary, Conclusion and Future Enhancements

Chapter 7: Summary, Conclusion & Future Enhancements

7.1. Project Summary

Agriculture is one of the best portal system that can be used by farmers according their current needs. By using our Agriculture equipment portal people will be able to order any type of agricultural equipment with just one click. It is time saving and energy saving. Users can easily visit online Portal while sitting at home. It is time saving. Our project is a generalize Portal. User could be able to access our Portal from mobile browser. It's not necessary or users haven't to use only windows browser to get access. Our site going to contain user friendly interface also will provide the facility to user for registration and login easily and quickly by providing general information. Agriculture is fast growing business. More and more business houses are implementing web portal providing functionality for performing commercial transactions over the portal. It is reasonable to say that the process of Agriculture Equipment on the web is becoming place. Agriculture Equipment Portal will give the facility to general people to buy and take equipment's on rent.

7.2. Achievements and Improvements

During the process of this project, we have learnt a lot of skills and learnt many new things like:

- New coding techniques
- Creative thinking
- UI Design

7.3. Lessons Learnt

Creating an portal that provide the best and easiest user experience is always a big challenge. So I have learnt that while making an portal three points would be remember in mind:

- Keep a clean intuitive UI and test it
- Do it well and update it
- Understand users and make them comeback.

7.4. Future Enhancements/Recommendations

Now this is our complete portal for our project. If in future we need **Digital Payment method** then we add it and more features to increase the version of our portal. Time By time we make changes and expand our project.

Appendices

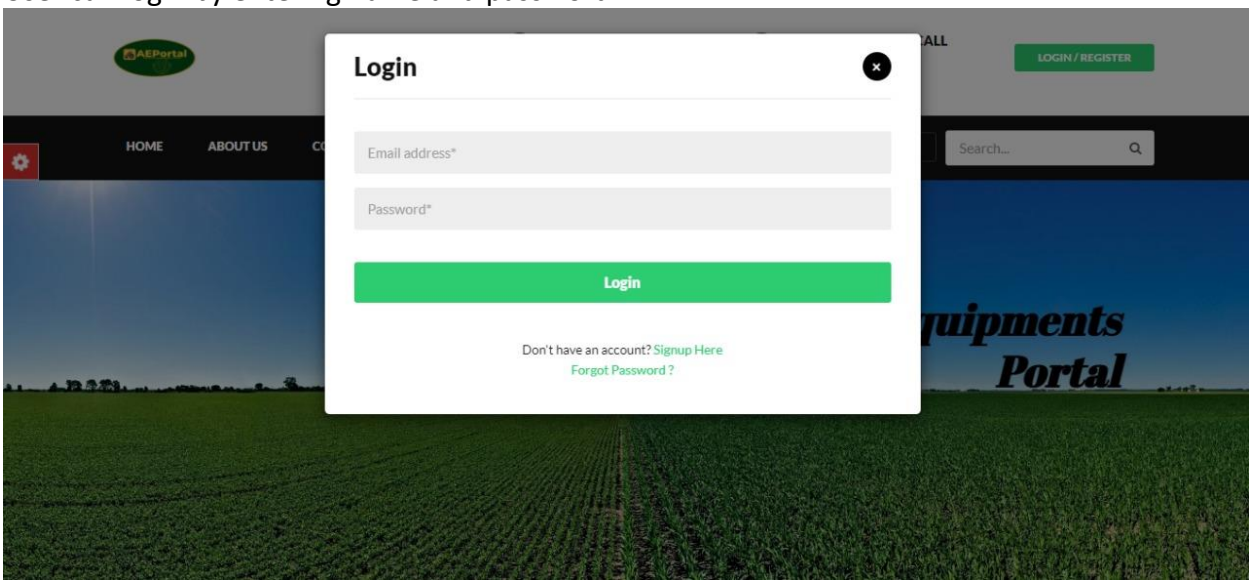
AppendixA: User Manual

In this appendix section we describe the different phases of user interface and also describe how user can use our project.

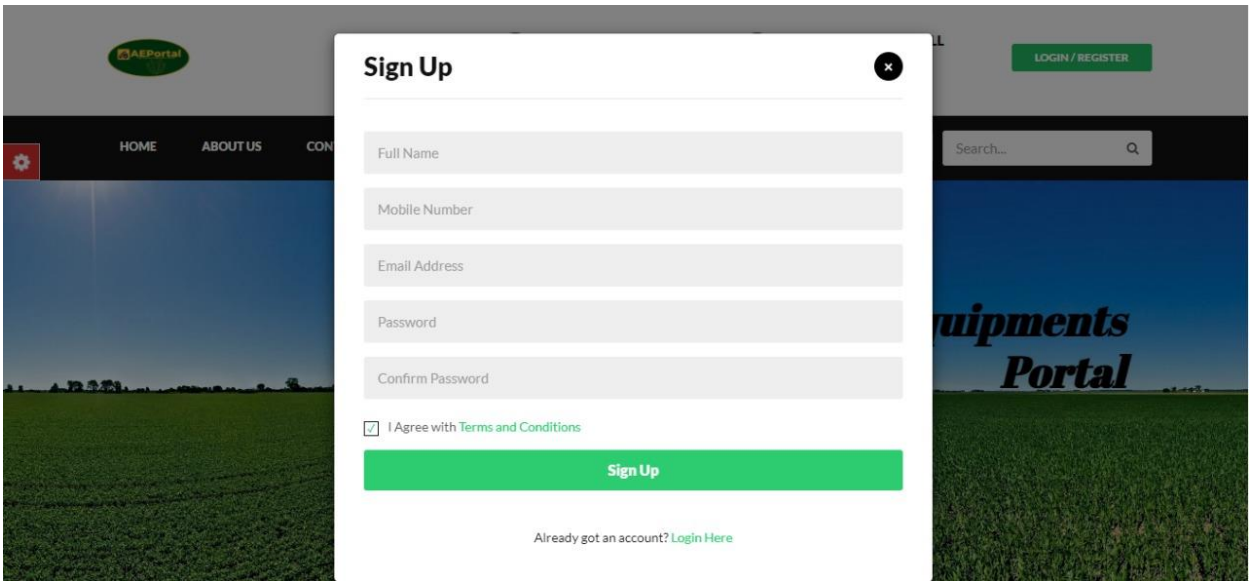
AppendixA: Agriculture Equipment Portal

A.1. Login

User can login by entering name and password



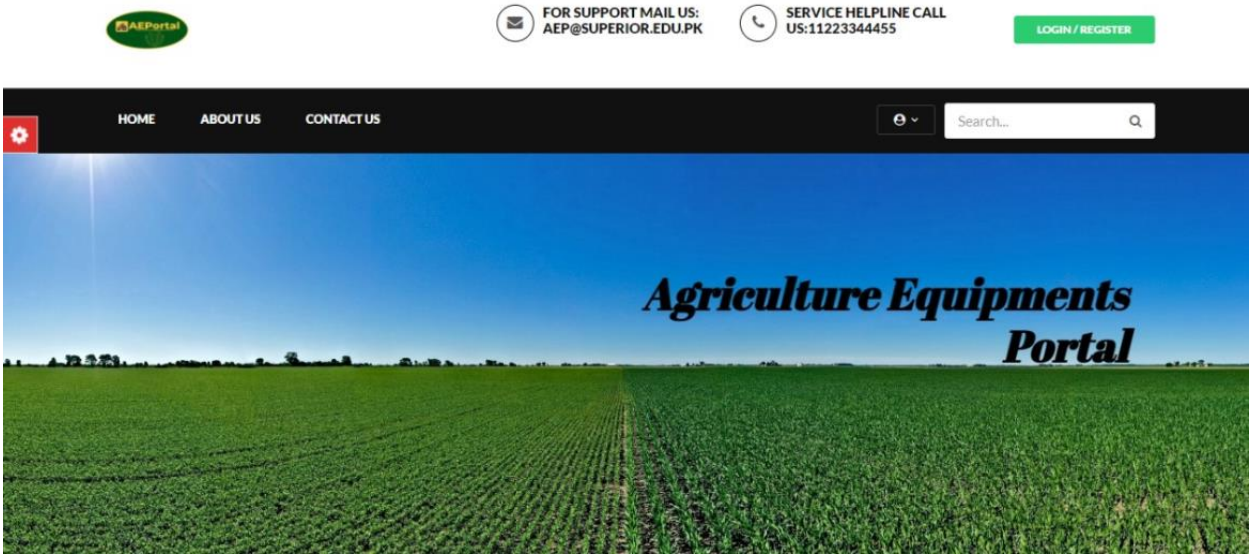
A.1.1. Signup

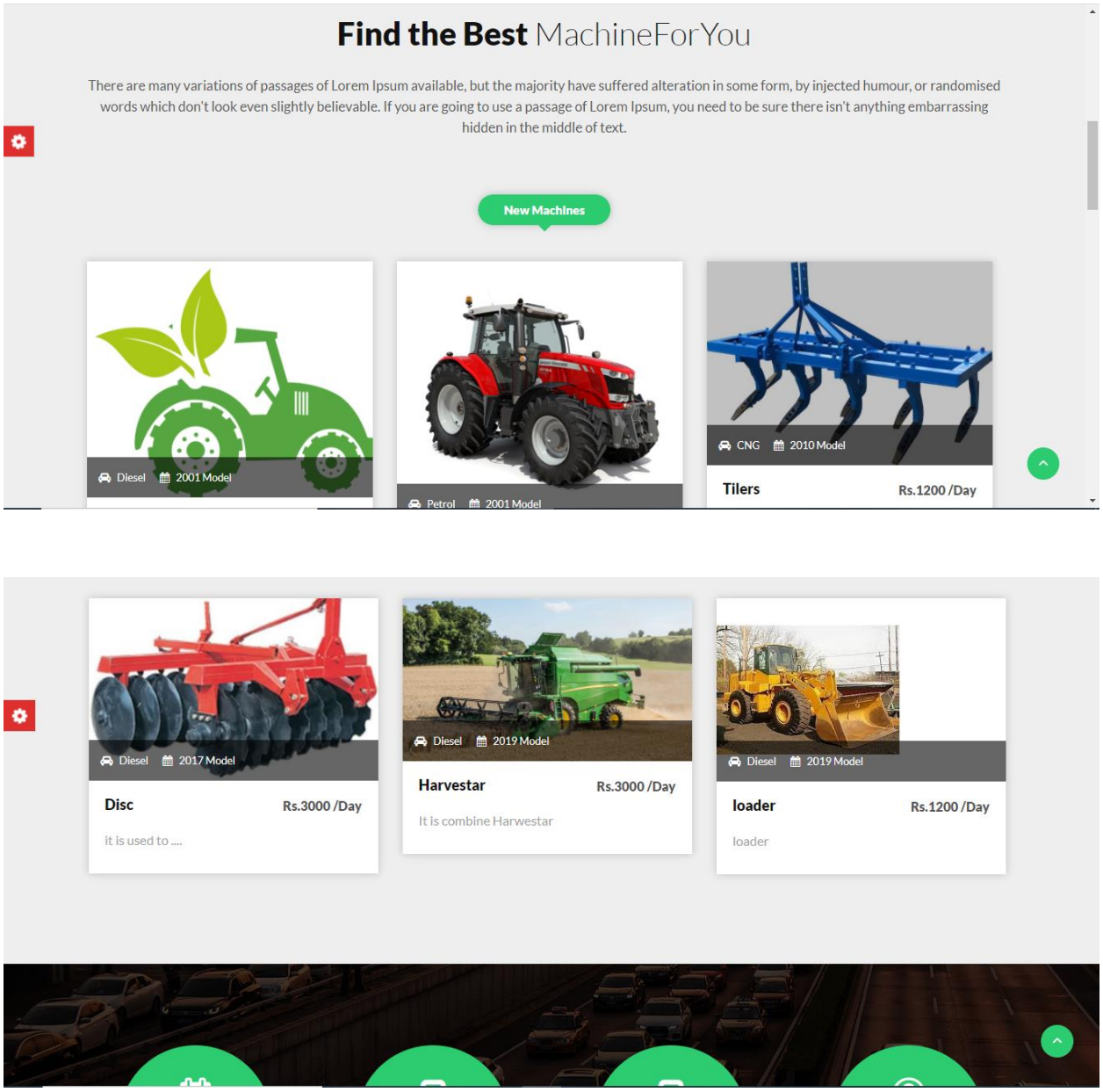


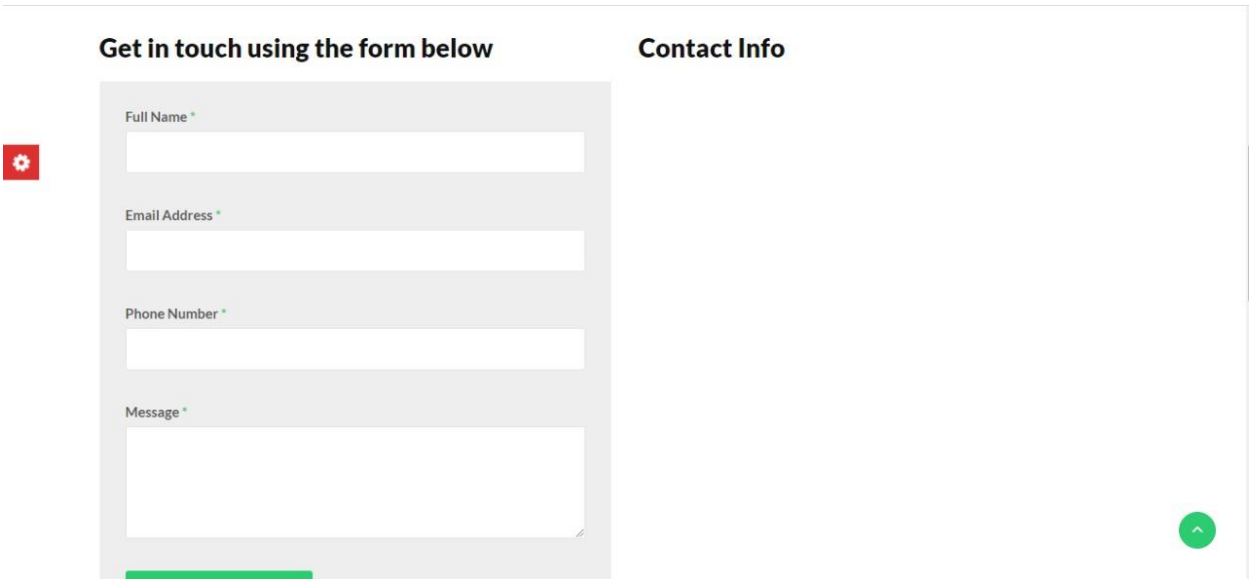
User fills the registration form.in case, if user is not valid and enters wrong name and password it will show a authentication warning.

A.1.1.1. Select Functionalities

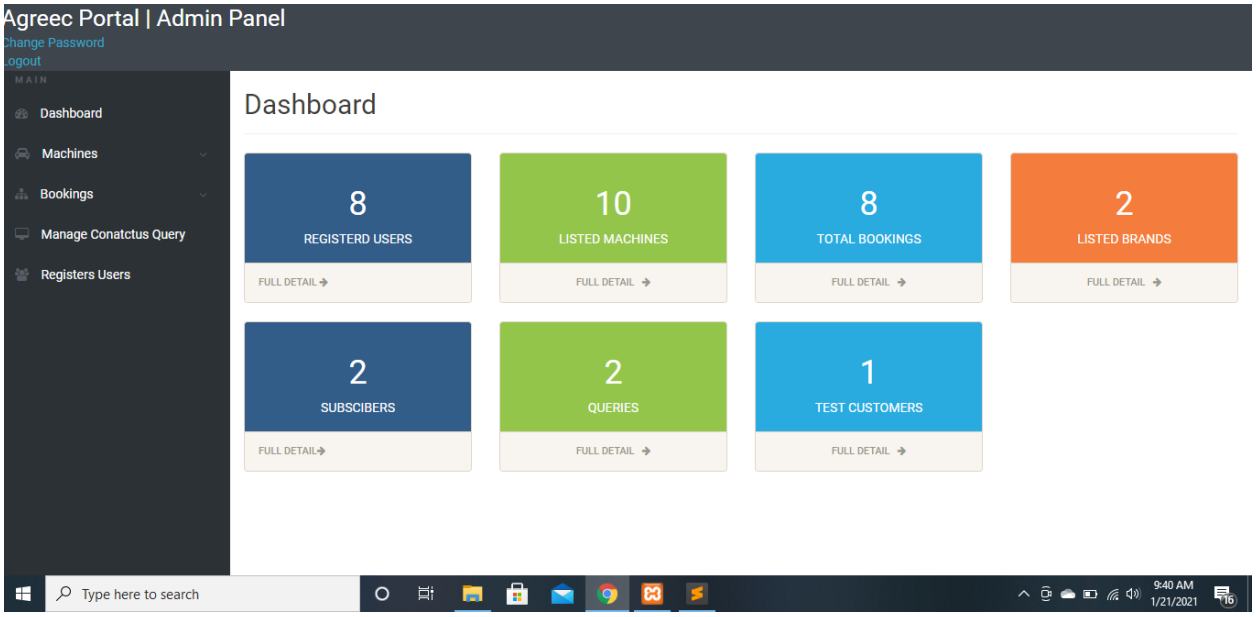
User selects the functionalities which he wants in Agriculture Equipment Portal.

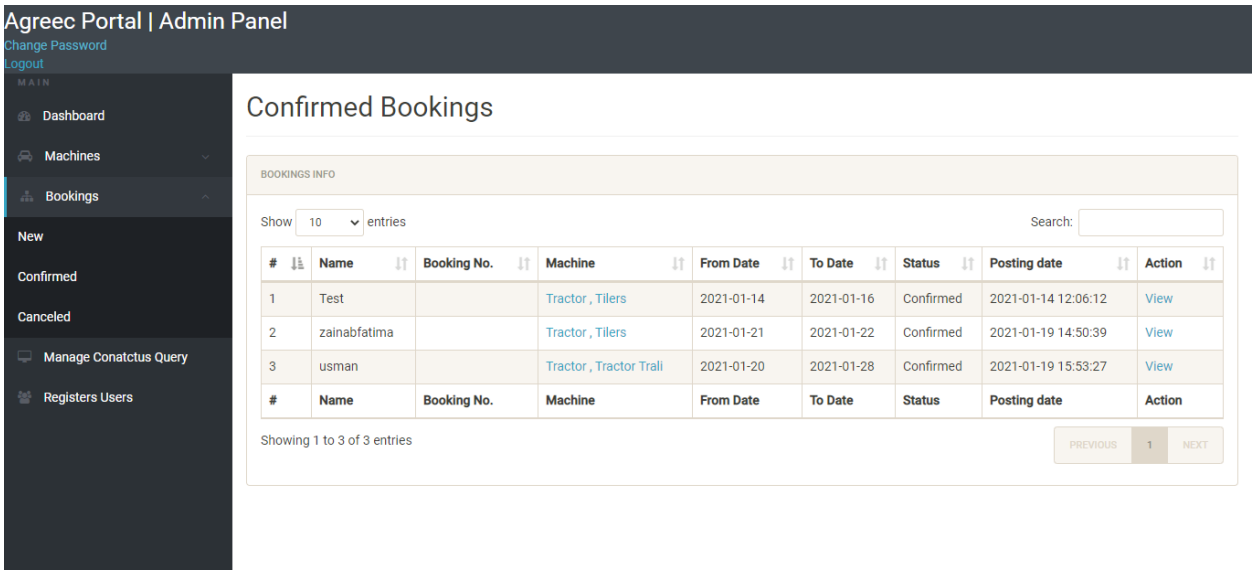


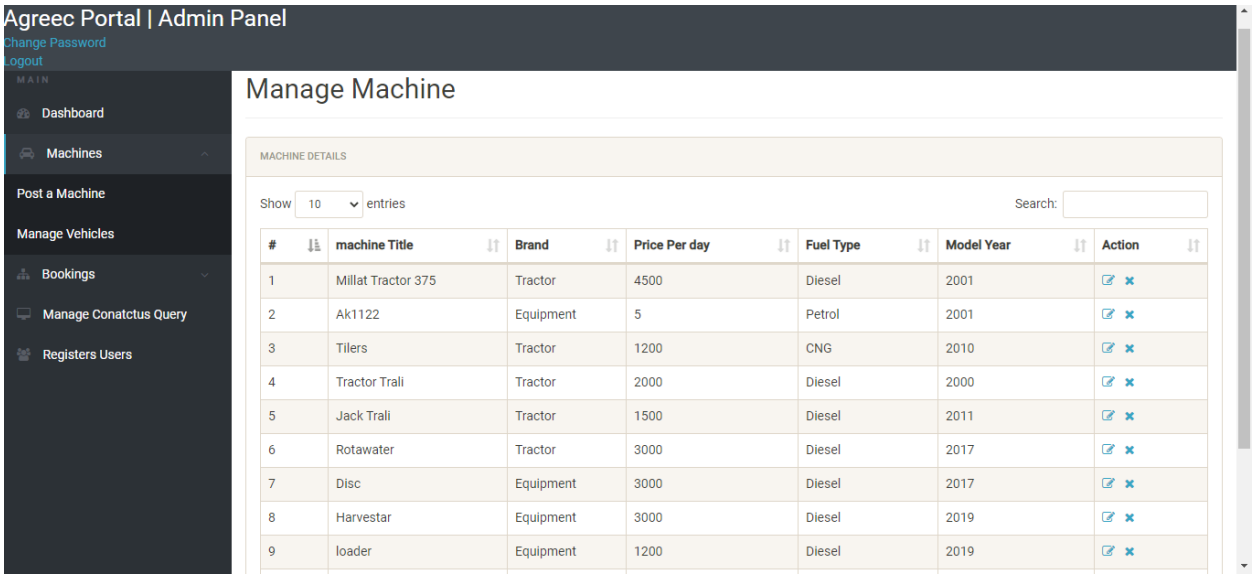

Find the Best MachineForYou
There are many variations of passages of Lorem Ipsum available, but the majority have suffered alteration in some form, by injected humour, or randomised words which don't look even slightly believable. If you are going to use a passage of Lorem Ipsum, you need to be sure there isn't anything embarrassing hidden in the middle of text.
New Machines
Diesel 2001 Model
Petrol 2001 Model
CNG 2010 Model
Tilers
Rs.1200 /Day
Diesel 2017 Model
Disc
Rs.3000 /Day
it is used to ....
Diesel 2019 Model
Harvestar
Rs.3000 /Day
It is combine Harwestar
Diesel 2019 Model
loader
Rs.1200 /Day
loader

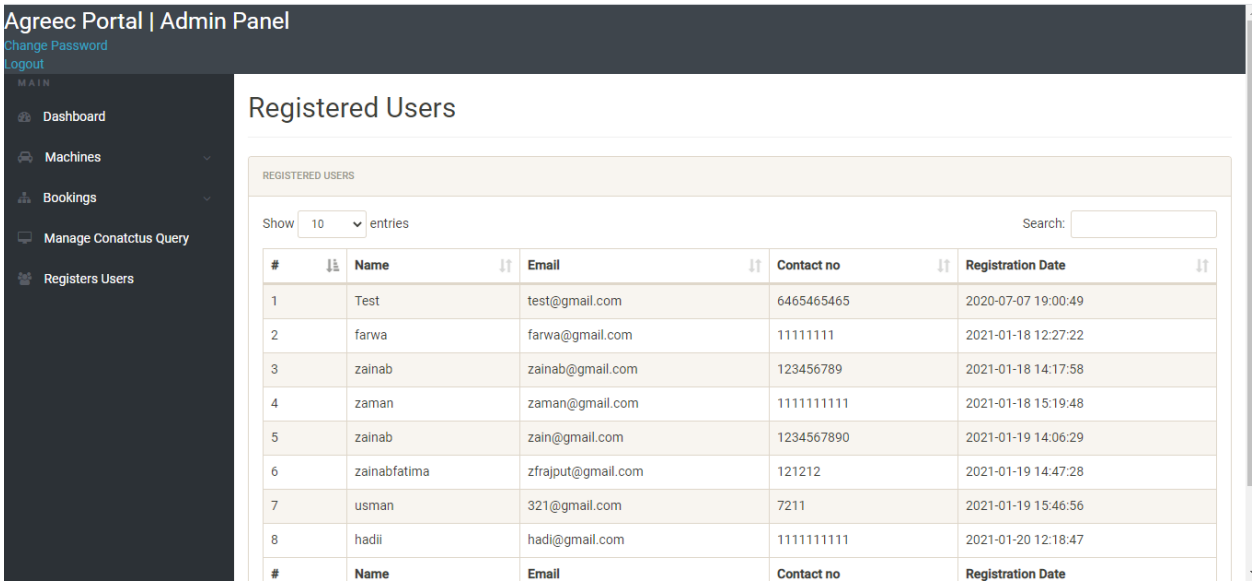


Appendix B: Admin Dashboard




Agreec Portal | Admin Panel
Change Password
Logout
MAIN
Dashboard
Machines
Bookings
New
Confirmed
Canceled
Manage Conatctus Query
Registers Users
Confirmed Bookings
BOOKINGS INFO
Show 10 entries
Search:
Name Booking No. Machine From Date To Date Status Posting date Action
1 Test Tractor , Tilers 2021-01-14 2021-01-16 Confirmed 2021-01-14 12:06:12 View
2 zainabfatima Tractor , Tilers 2021-01-21 2021-01-22 Confirmed 2021-01-19 14:50:39 View
3 usman Tractor , Tractor Trali 2021-01-20 2021-01-28 Confirmed 2021-01-19 15:53:27 View
Showing 1 to 3 of 3 entries
PREVIOUS 1 NEXT


Agreec Portal | Admin Panel
Change Password
Logout
MAIN
Dashboard
Machines
Post a Machine
Manage Vehicles
Bookings
Manage Conatctus Query
Registers Users
Manage Machine
MACHINE DETAILS
Show 10 entries
Search:
machine Title Brand Price Per day Fuel Type Model Year Action
1 Millat Tractor 375 Tractor 4500 Diesel 2001
2 Ak1122 Equipment 5 Petrol 2001
3 Tilers Tractor 1200 CNG 2010
4 Tractor Trali Tractor 2000 Diesel 2000
5 Jack Trali Tractor 1500 Diesel 2011
6 Rotawater Tractor 3000 Diesel 2017
7 Disc Equipment 3000 Diesel 2017
8 Harvestar Equipment 3000 Diesel 2019
9 loader Equipment 1200 Diesel 2019


Agreec Portal | Admin Panel
Change Password
Logout
MAIN
Dashboard
Machines
Bookings
Manage Conatctus Query
Registers Users
Registered Users
REGISTERED USERS
Show 10 entries
Search:
Name Email Contact no Registration Date
1 Test test@gmail.com 6465465465 2020-07-07 19:00:49
2 farwa farwa@gmail.com 11111111 2021-01-18 12:27:22
3 zainab zainab@gmail.com 123456789 2021-01-18 14:17:58
4 zaman zaman@gmail.com 1111111111 2021-01-18 15:19:48
5 zainab zain@gmail.com 1234567890 2021-01-19 14:06:29
6 zainabfatima zfrajput@gmail.com 121212 2021-01-19 14:47:28
7 usman 321@gmail.com 7211 2021-01-19 15:46:56
8 hadii hadi@gmail.com 1111111111 2021-01-20 12:18:47
Name Email Contact no Registration Date

Reference and Bibliography

Reference and Bibliography

[1] M. Sher, M. Rehman, "*Title of the Paper*" Conference name/Journal Name, Edition, Volume, Issue, ISBN/ISSN, PP, Publisher/City-Country, Year.

[2] ……