

National Institute of Co-operative Development Polgolla

Diploma in Information Technology – 2019/2020

Ticket Management System

Final Project

Student Name : - W.G.M.M.Ajmal

ID Number :-DIT/FT/2019/14/363

Submission Date : -2020/12/14

DECLARATION

I declare that the project entitled is an outcome of my own effort under the guidance
of Mr. Dimuthu Kumara. The project is submitted to the National Institute of Co-
operative development for the partial fulfilment of the Diploma in Information
Technology course.

Signature of Course Coordinator
Date

ACKNOWLEDGEMENT

My most profound gratitude goes to my, Course Coordinator – Sectional Head of IT Mrs. I. Namali Nanayakara who gave me the opportunity to do this project. I am extending my sincere and heartfelt thanks to our esteemed guide Mr. Kumara Dimuthu, who provided the overall support and encouragement and for showing us the right way. I am extending my sincere thanks to our respected Computer Instructor of the IT Division at National Institute of Co-operative Development Mr. Chanaka Dissanayake, for allowing us to use the facilities available. Finally, I would like to thank my parents and friends for the support and encouragement they have given us during the course of my work. Words cannot fully express my appreciation to all individual who have contributed to this work.

ABSTRACT

Ticket Management System by Manual way is tedious process, since it involves work load and time consumption. In this system, we can easily manage the all ticket system operations.

The main feature of the Developed Ticket Management System is to allocate for the passengers and manage employees. Identification of the drawbacks of the existing system leads to the development computerized ticket management system that will be compatible to the existing system with the system which is more user friendly and more GUI oriented. We can improve the efficiency of the system, thus overcome the drawbacks of the existing ticket management system. Less human error, Strength and strain of manual labor can be reduced, High security, Data Redundancy can be avoided to some extent, Data consistency, Easy to handle, Easy to update the data, Easy record keeping Backup data can be easily generated.

This project is carried out using Visual Studio 2015 Enterprises as Front-End and MySQL sever database as Back-End. This Ticket Management System has Admin Login, Guest Login. This ticket management system is running through these dual login systems. Admin can manage all the operations in the system and a guest can log into the system and can reserve their bookings for their travel. This system will ease the work for passengers who willing to book tickets for their travel.

Table of Contents

DECLARATION	2
ACKNOWLEDGEMENT	3
ABSTRACT	4
LIST OF FIGURES	8
LIST OF TABLES	11
CHAPTER 01	13
INTRODUCTION	13
Introduction	14
1.1Background	14
1.2 Purpose	14
1.3 Objectives and Scope	15
1.4 Project Schedule	15
1.5 Approach	16
CHAPTER 02	17
SOFTWARE REQUIREMENT	17
SPECIFICATION	17
Software Requirement Specification	18
2.1 User Requirement Specification	18
2.2 System Requirement Specification	18
2.2.1 Functional System Requirements	18
2.2.3 Non-Functional Requirement Specification	19
2.3 Hardware Requirements.	19
2.4 Software Requirements	19
2.5 Software Tool Used	20
CHAPTER 03	21
SYSTEM ANALYSIS	21
3.System Analysis	22
3.1 Data Collection Methods	22
3.2 Existing System	22
3.3 Proposed System	22
3.4 Literature Review	23
CHAPTER 04	25
SYSTEM DESIGN	25
4.System Design	26
4.1 System Architecture	26

4.2 ER-Diagram	27
4.3Use Case Diagram	29
CHAPTER 05	30
SYSTEM IMPLIMENTATION	30
5. SYSTEM IMPLIMENTATION	31
5.1 Interfaces	31
5.1.1. Loading Page	31
5.1.2. Admin Login	31
5.1.3. Admin & User Home Page	32
5.1.4. Customer Registration	33
5.1.5. Flight	33
5.1.6. Flight Ticket (Customer)	34
5.1.7. Loading Page for Hotel View	34
5.1.8. View of Hotels	35
5.1.9. Transport Options	35
5.1.10. Issue Salary	36
5.1.11. Report of Flights	36
5.1.12. Report of Hotel	37
5.1.13. Report of Customer	37
5.1.14. Report of Transport	38
5.1.15. Print Preview of Employee Salary Receipt	38
5.1.16. Manage Users	39
5.1.17. Manage Employee	39
5.1.20. Manage Transport	40
5.1.21. Manage Flight	41
5.1.22. Email view for hotel booking	41
5.1.23. Email view for hiring vehicles	42
5.1.24. Email message registered customers	42
5.2 Coding (Selected)	43
5.2.1. Coding for Customer Module	43
5.2.2. Coding for Dashboard	43
5.2.3. Coding for Login	44
5.2.4. Coding for Message Box	45
5.2.5. Coding for Login	45
5.2.5. Coding for Display Meals (Selected)	46
5.2.6. Coding for Flight Bookings (Selected)	47

5.2.7. Coding for Insert Records	48
5.2.8. Coding for Update Records	48
5.2.9. Coding for Delete Records	48
5.2.10. Coding for Data grid view (Cell Click and view)	49
5.3 Database Tables	50
5.3.1. Accounts	50
5.3.2. Trans	50
5.3.3. Tra_booked	51
5.3.4. Manage Users	51
5.3.5. Salary	51
5.3.6. Place	52
5.3.7. Payment	52
5.3.8. Issue	52
CHAPTER 06	57
EXPERIMENTS & RESULTS	57
6.EXPERIMENTS & RESULTS	58
6.1. Testing Admin Login	58
6.2. Testing Customer Registration	59
6.3. Testing Hotel Booking	60
6.4. Testing Vehicle Hiring	61
6.5. Testing Flight Options	62
7. Conclusion	63
8.Future Scope	63
9.References	64

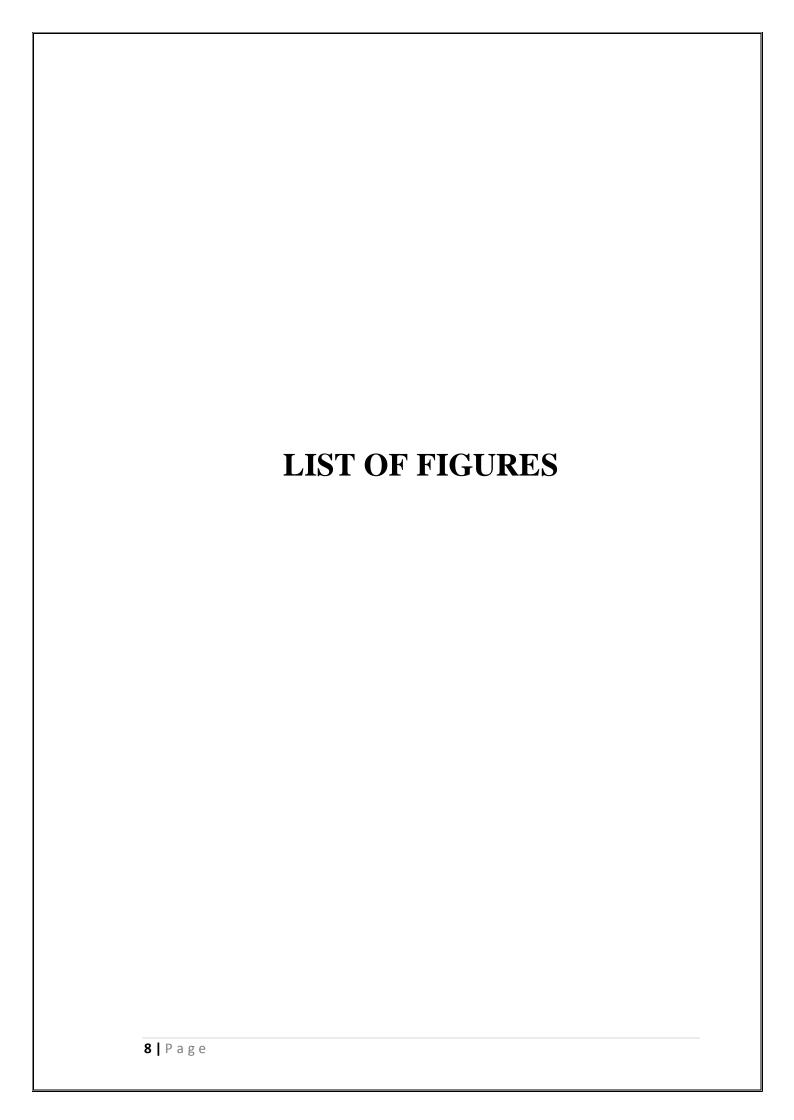
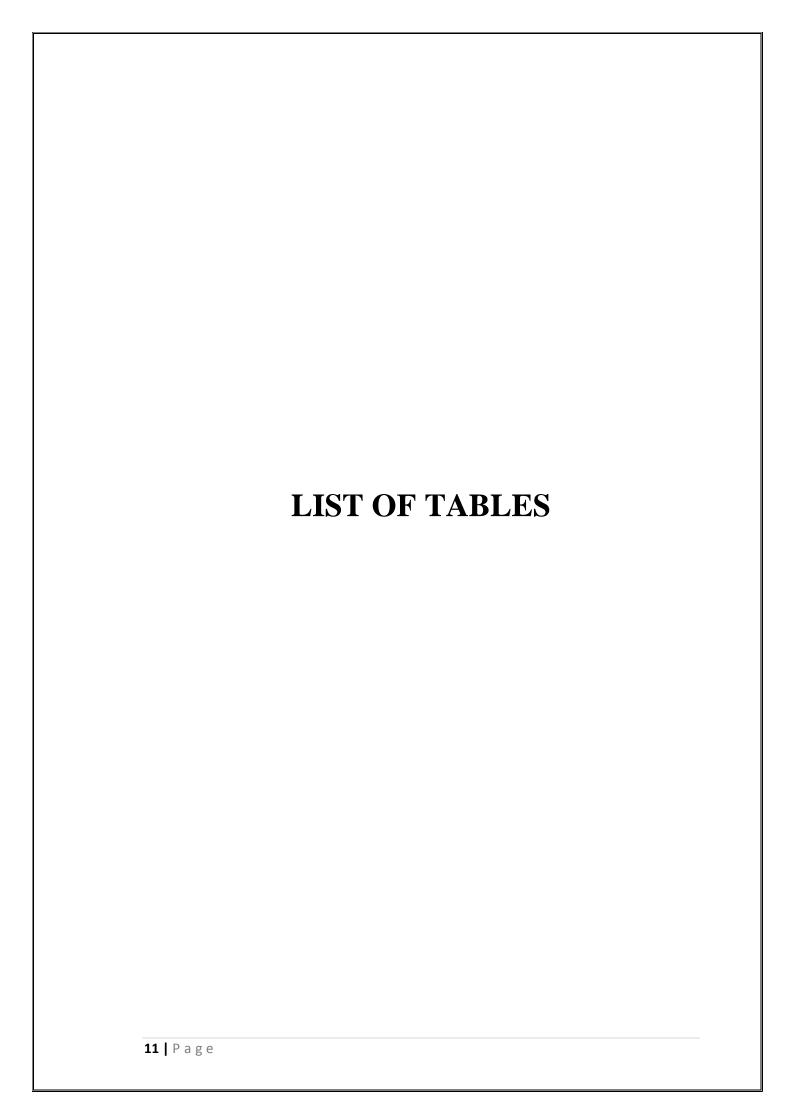
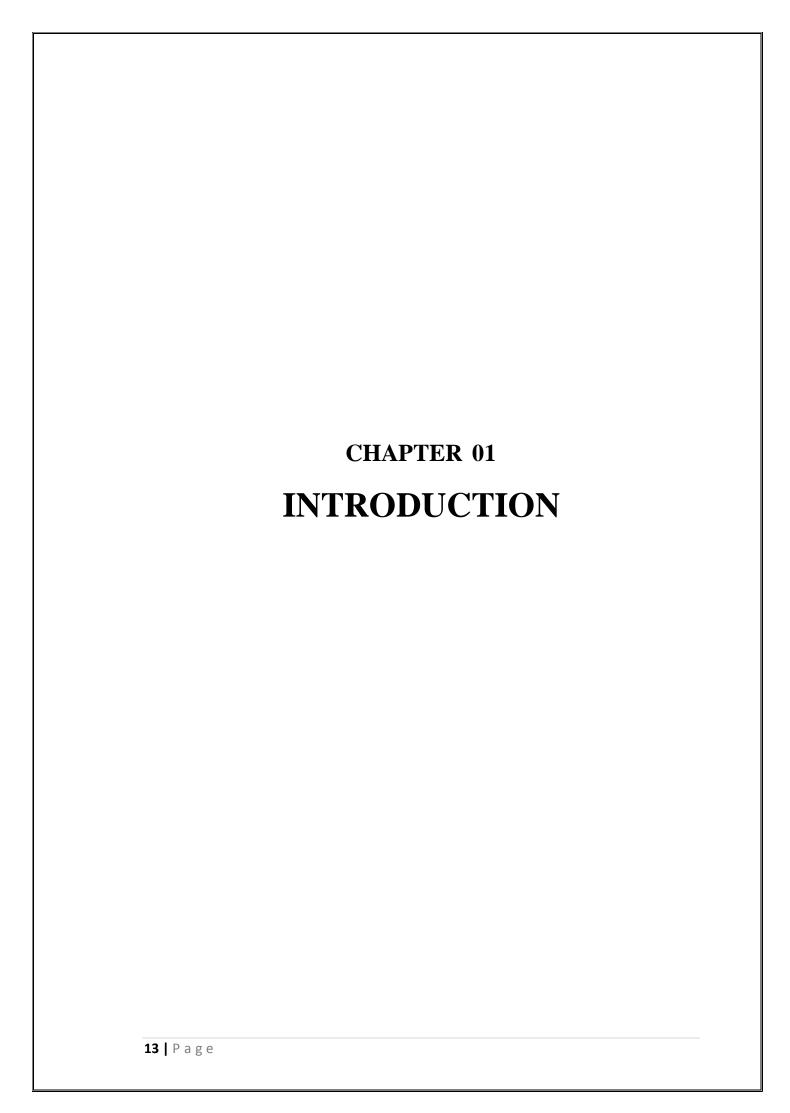


Figure 2 Classical Waterfall Model – Approach of Project	16
Figure 3 System Architecture Graphical View	26
Figure 4 ER-Diagram – Ticket Management System	27
Figure 5 Use Case Diagram – Ticket Management System	29
Figure 6 Loading Page	31
Figure 7 Admin Login	
Figure 8 Admin Home Page	
Figure 9 User Home Page	
Figure 10 Customer Registration	
Figure 11 Fight	
Figure 12 Flight Ticket	
Figure 13 Loading Page for Hotel View	
Figure 14 View of Hotels	
Figure 15 Transport Options	
Figure 16 Issue Salary	
Figure 17 Report of Flights	
Figure 18 Report of Hotels	
Figure 19 Report of Customer	
Figure 20 Report of Transport	
Figure 21 Employee Salary Receipt	
Figure 22 Manage Users	
Figure 23 Manage Employee	39
Figure 24 Manage Hotel	39
Figure 25 Manage Meals	40
Figure 26 Manage Transport	40
Figure 27 Manage Flight	41
Figure 28 Email View for hotel booking	41
Figure 29 Email view for hiring vehicles	
Figure 30 Email message for registered Customers	
Figure 31 Coding for customer module	
Figure 32 Coding for dashboard	
Figure 33 Coding for Login	
Figure 34 Coding for Message Box	
Figure 35 Coding for Login	
Figure 36 Coding for Display Meals	
Figure 37 Coding for Flight Booking	
Figure 38 Coding for Insert Records	
Figure 39 Coding for Update Records.	
Figure 40 Coding for Delete Records	
Figure 41 Coding for Data gird view	
Figure 42 Testing Admin Login 1- HMS	
Figure 43 Testing Admin Login 2	
Figure 44 Testing Customer Registe	
Figure 45 Testing Customer Registration	
Figure 46 Testing Hotel Booking 1	
Figure 47 Testing Hotel Booking 2	60
Figure 48 Testing Vehicle Hiring.	61

Figure 49 Testing Vehicle Hiring 2	61
Figure 50 Testing Flight Option	
6	



50
50
51
51
51
52
52
52
53
53
53
54
54
55
55
55
56
56
56
58
Table 23 Testing Customer Registration
59
Table 24 Testing Hotel Booking
60
61



Introduction

1.1Background

This Ticket Management System is developed for aircore ticketing services in favor of the ticket management team which help themselves to save the records of the employees, passengers. It helps them from the manual work from which it is very difficult to find the record of the passengers, employees, payments, meals, bookings and other things.

This solution is developed on the plight of the ticket management team; through this they cannot require so eminent person to handle and manage the affairs of the passengers & employees in the services, all you need to do is to login as admin and you can see the information of all the passengers, employees, bookings and other things.

This system is fully computerized and having more flexible and safe options, and it is more securable way of store records of company therefore this TMS is much useful for the current ticketing functions.

1.2 Purpose

The purpose of this project is to make an automated system to carry out the various operations of Aircore Ticketing Company. This Ticket Management System will provide the ease of use to the admin of the company by performing all the work on a computer system rather than following a manual approach. This approach helps improving the reliability of the data maintained and provides a fast and efficient interface for the users of the software.

1.3 Objectives and Scope

This software product the Ticket management to improve their services for all the employees and passengers. This also reduce the manual work of the person in admin panel and bundle of registers that were search when to find the information of the previous passenger, employee, payments and bookings. Through this system we can save the records of the passengers, employees and others in database. The database of the system will help to record all the details of the passengers, employees and others at once and help to manage records at any time.

- > To automate each and every activity of the manual system, which increases its throughput.
- > To provide a quick response with very accurate information as and when required.
- > Reduce the cost of maintenance.

1.4 Project Schedule

As I scheduled my project work I have started my project work on October 1st week, it took 1 week for requirement gathering for the project, and another 2 weeks for Designing part of the project. At the starting of the 1 week of November I have started to code my project and it took 2 weeks, after that I have taken a testing part to my project and, debugged errors. As I scheduled I have completed my project on end of the November (4th Week).

1.5 Approach

Classical Waterfall Model

In order fulfill the requirements as highlighted in the objectives I have chosen Classical Waterfall Model to be used in this system to be developed. It is very easy to handle and identify the user requirements and easy to develop the project according to the user requirements. Therefore, I have chosen this software model to develop the project. Reasons for choosing this methodology is, it supports high user involvement, easy to use & understand, taking reviews in the completion of every phase and appropriate model for this project.

The phases of Classical Waterfall Model are;

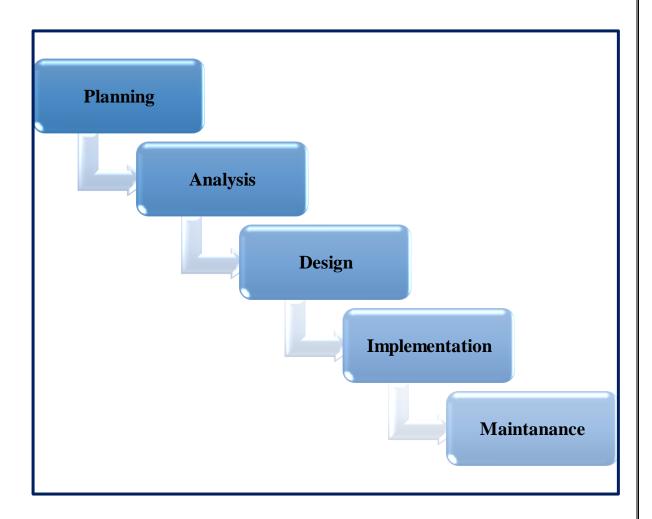
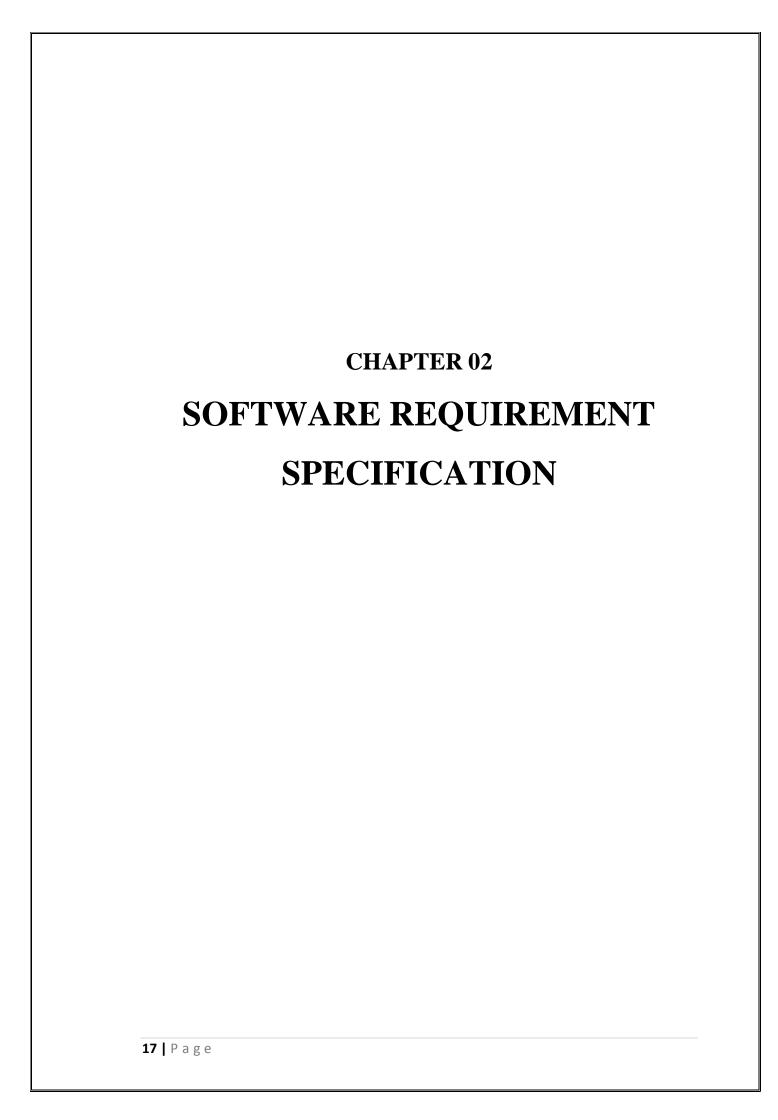


Figure 1 Classical Waterfall Model – Approach of Project



Software Requirement Specification

2.1 User Requirement Specification

The user requirements for this system is to make the system fast and flexible, less prone to error, reduce expenses and save the time.

- Less human error.
- > Strength and strain of manual labor can be reduced.
- ➤ High Security.
- > Data redundancy.
- > Data consistency.
- **Easy to handle.**
- **Easy data updating.**

2.2 System Requirement Specification

2.2.1 Functional System Requirements

It defines the functional requirements that applicable to the Hostel Management System. These are the sub modules of the system.

- > Admin
- ➤ Guest
- > Meals
- ➤ Hotel
- > Transport
- Reservation
- > Tally up
- Manage

2.2.3 Non-Functional Requirement Specification

- > Performance Requirements.
- > Safety Requirements.
- > Security Requirements.
- > Flexibility
- > Reusability

2.3 Hardware Requirements.

- > Processor
- > RAM
- ➤ Hard Disk
- ➤ Keyboard
- ➤ Monitor or LCD

2.4 Software Requirements.

➤ Operating System: Microsoft Windows.

➤ Front-end Tool: Visual Basic 2015 –Enterprise.

➤ Back-end Tool: MySQL Database.

2.5 Software Tool Used

Front-End Tool − Visual Basic 2015 Enterprises

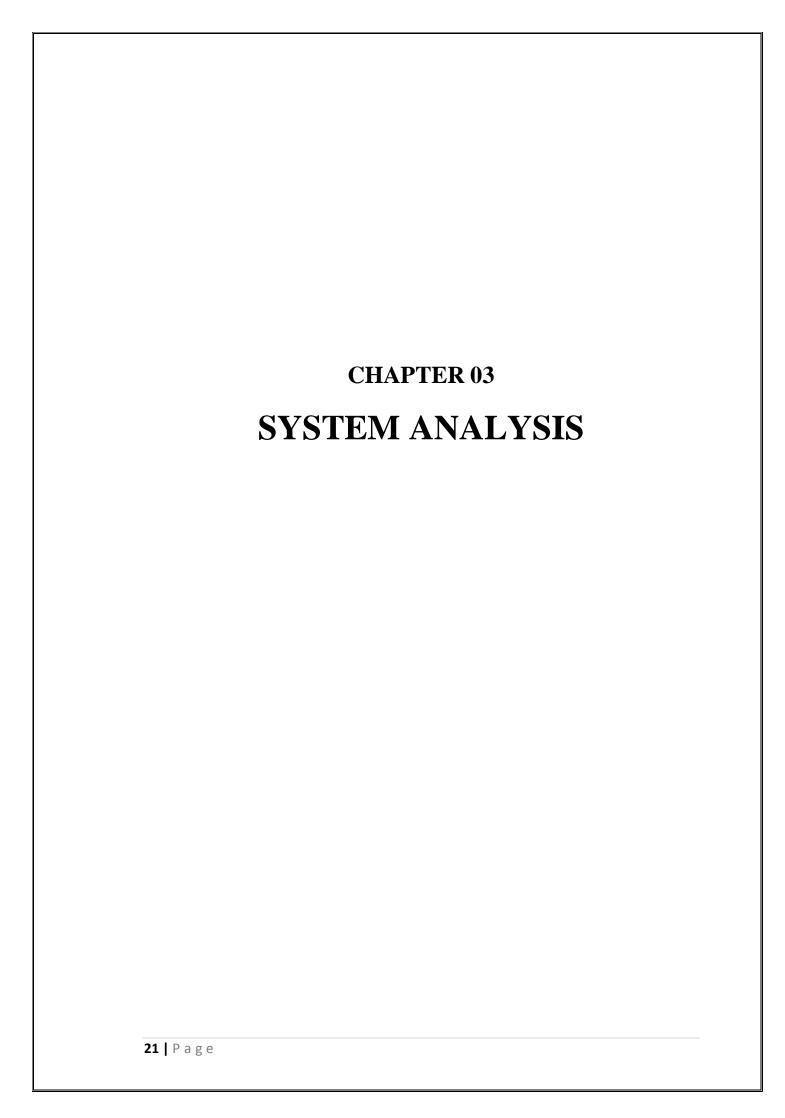
Microsoft Visual Studio is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs, as well as websites, web apps, web services and mobile apps. Visual Studio uses Microsoft software development platforms such as Windows API, Windows Forms, Windows Presentation Foundation, Windows Store and Microsoft Silverlight. The integrated debugger works both as a source-level debugger and a machine-level debugger.

I have used Visual Studio tool to code this software, and also I have used this software to testing part of the system and debugged errors by testing the system. It is a very efficient IDE to develop any software.

Back-End Tool − MySQL

MySQL is an Oracle-backed open source relational database management system based on Structured Query Language. MySQL runs on virtually all platforms, including Linux, UNIX and Windows. Although it can be used in a wide range of applications, MySQL is most often associated with web applications and software development.

I have used MySQL database to save all records of the system. It eases the work of the project development.



3.System Analysis

3.1 Data Collection Methods

- ➤ Documentations (Reports, PDF, Books etc.)
- Observations
- Questionnaires

3.2 Existing System

The existing Ticket Management System is a manual way of handing records of ticketing services.

- More human error.
- ➤ More strength and strain of manual labor needed.
- > Repetition of some procedures.
- Lack of security.
- > Data redundancy.
- > Record keeping is difficult.
- > Time consuming.

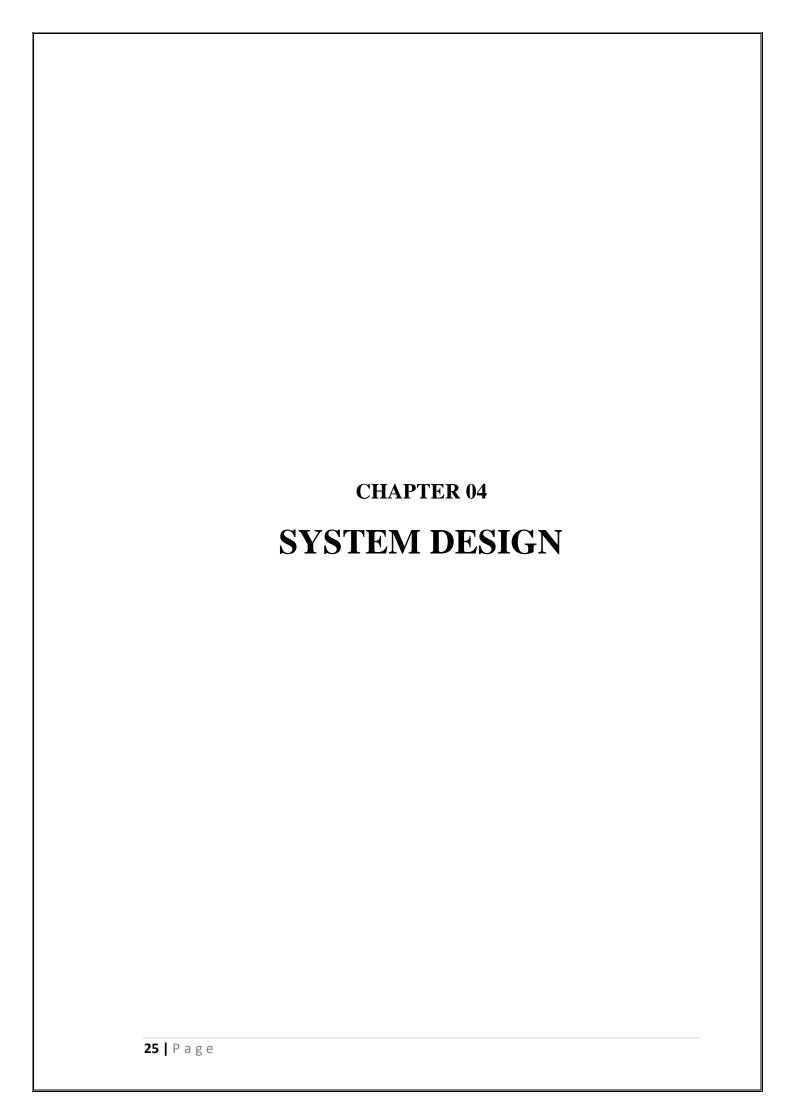
3.3 Proposed System

The proposed Ticket Management System is fully computerized system. It provides easy and quick wat to access the records. It has authorization schemes. It reduces the consuming of time. Through this system we can save the records of the passengers, employees and other module records in database easily. It provides an easy way to manage (Add, Update, Delete, View, Search, Filter) records of ticketing services.

3.4 Literature Review

- According to the view of (Patrick J. TooleSudhir KrishnaswamyNima MoayediDavid N. LordFrancisco J. Gutierrez, 2007) embodiments of the invention include a system and set of processes for managing tickets. The system maintains a database of tickets belonging to a company and the allotment of the tickets to employees and clients. The system provides interfaces for requesting tickets and managing ticket requests. The system optionally provides automated request processing, ticket resale and purchase and electronic distribution.
- According to the view of (panelNorazahMohd, SukiaNorbayahMohd Sukib, 2017) In the context of intense market competition, airlines are enriching their business operations by offering flight ticket booking apps that can be downloaded on mobile devices. This study aims to examine the intention of individuals to use such apps, and uses Structural Equation Modelling (SEM) to analyses the data gathered from individuals in Malaysia. Perceived usefulness represents the greatest influence on individuals in respect of their intention to engage with such an app offered on a mobile device. Airline companies should consider using advances in ICT within their overall portfolio of marketing strategies, if they wish to become more competitive in the current market. They should utilize the interactive and attractive features of online channels in order to encourage more individuals to try their flight ticket booking apps on mobile devices. The proposed model could be used as a baseline model in future research.

- According to the view of (Kola Ayanlowo, O. Shoewu, Segun O. Olatinwo Omitola, Damilola D. Babalola, 2014) hostels Consequently it has increased knowledge and helped produce a population of enlightened citizens who can easily abide by the rules of civilized society and contribute meaningfully to the process of democratic governance. Most of the newly established educational institutions however, are using the old conventional techniques for managing their assets especially hostel facilities. These old techniques with its inherent limitations have impacted negatively on the overall organizational efficiency of this educational systems. In this paper, the development of an automated hostel accommodation management system is proposed.
- Finally, according to my view, I have introduced a feature in my system that a passenger can surf the travel agency details under the supervision of the receptionist in the computer system, therefore passenger can know more information about the travelling services, if the passenger wishes to allocate a ticket, she/he can log into the system by getting a username and password from the receptionist and log into the system. Passenger can fill a register form which is shown in the system to reserve/get their id. Admin can manage all the details about passengers such as view, search, update, delete and filter. As it is admin can add and manage the hotel records as well as admin can add and manage employee records who are working in the company and admin can manage the all other modules too. I hope it will work out very efficiently in future for any ticket management systems. This Ticket Management System works very flexibly and efficiently for the ticket service companies and support the user to operate the system very easily.



4.System Design

4.1 System Architecture

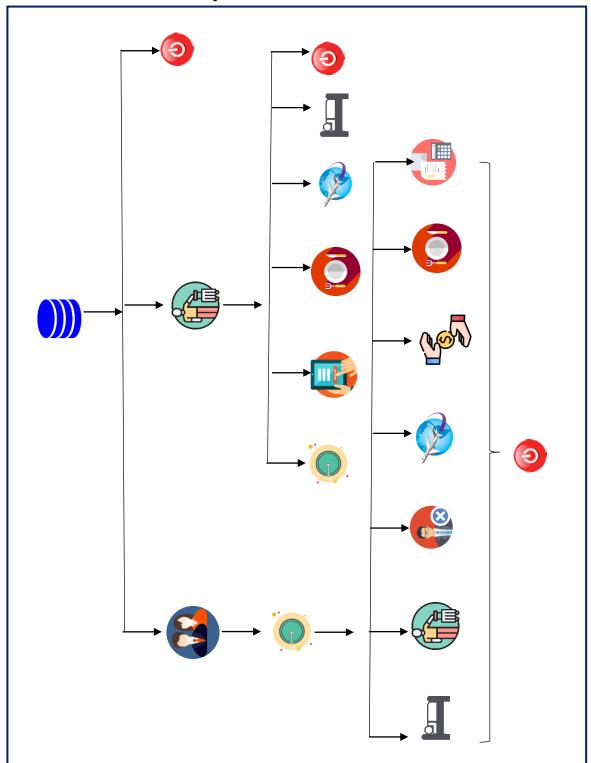


Figure 2 System Architecture Graphical View

4.2 ER-Diagram

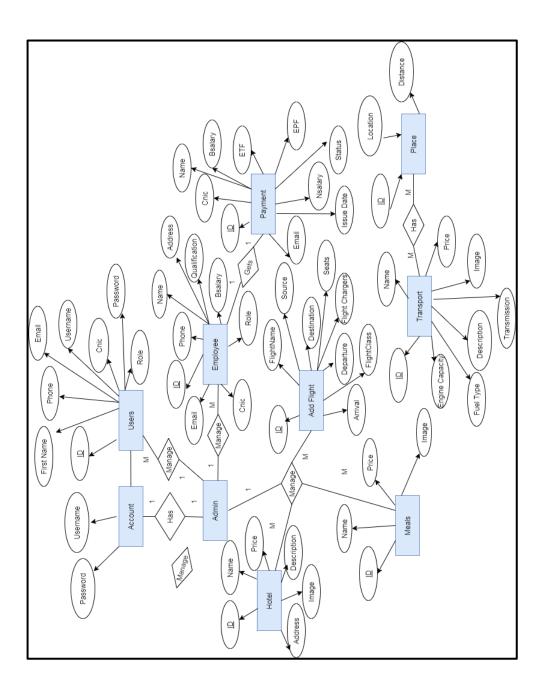
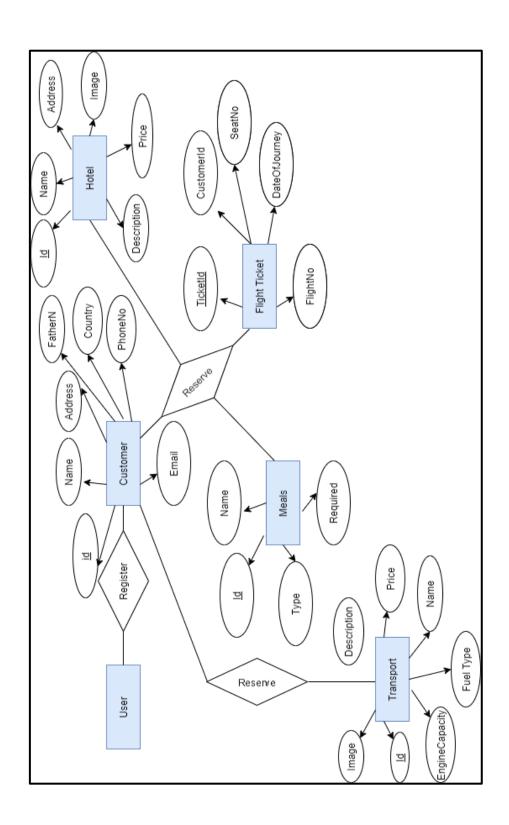


Figure 3 ER-Diagram – Ticket Management System



4.3Use Case Diagram

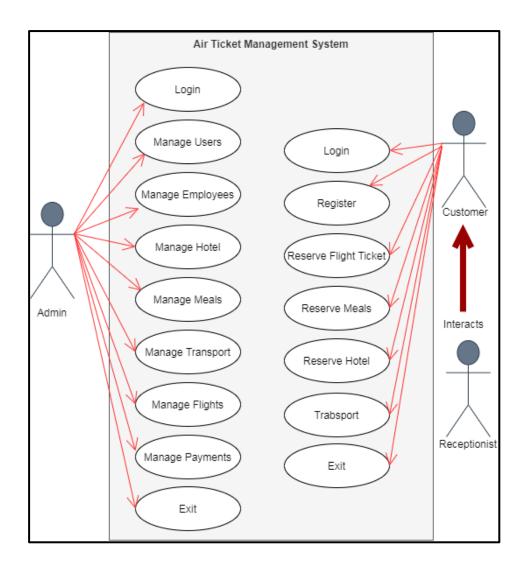
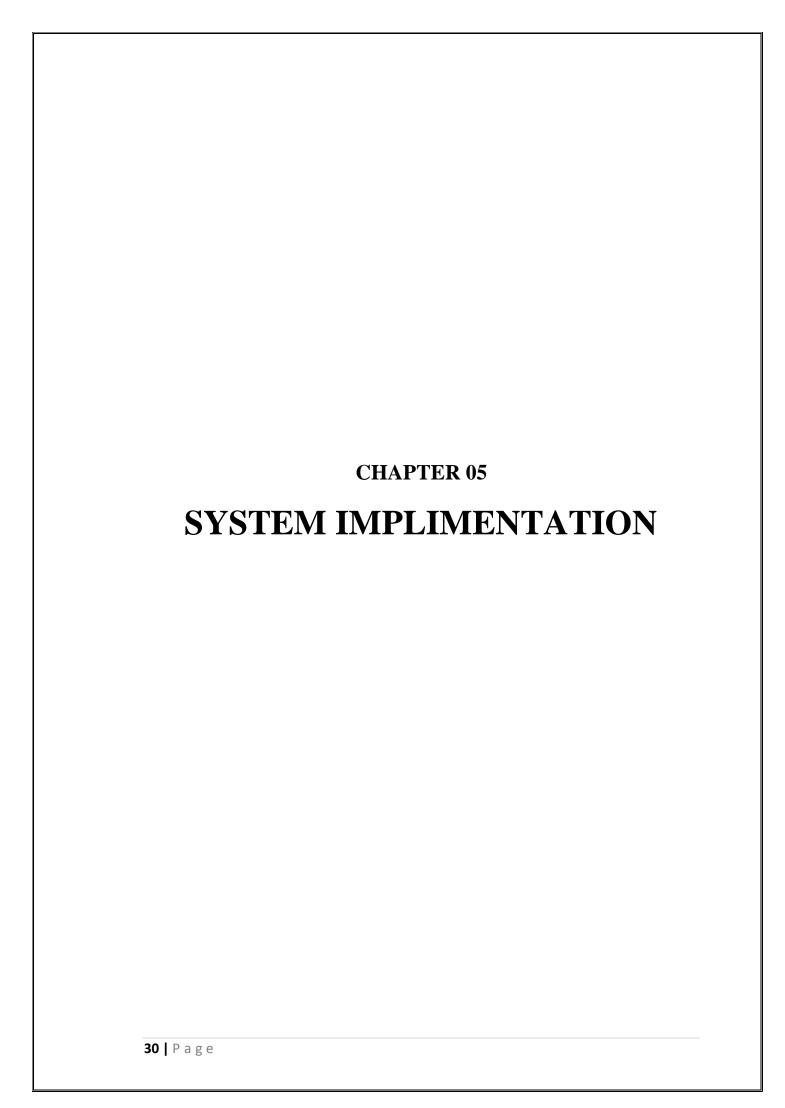


Figure 4 Use Case Diagram – Ticket Management System



5. SYSTEM IMPLIMENTATION

5.1 Interfaces

5.1.1. Loading Page



Figure 5 Loading Page

5.1.2. Admin Login



Figure 6 Admin Login

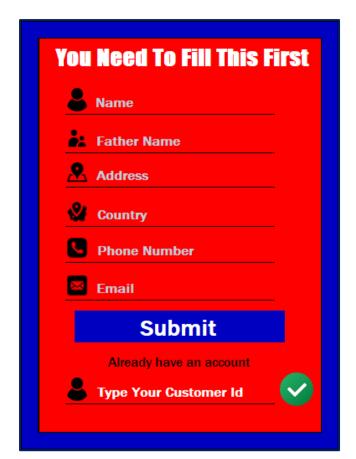
5.1.3. Admin & User Home Page



Figure 7 Admin Home Page



Figure 8 User Home Page



5.1.4. Customer Registration

Figure 9 Customer Registration

5.1.5. Flight

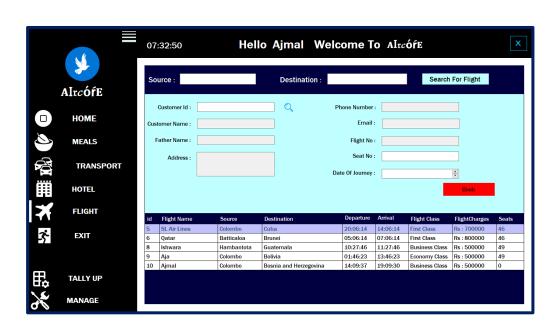


Figure 10 Fight

5.1.6. Flight Ticket (Customer)



Figure 11 Flight Ticket

5.1.7. Loading Page for Hotel View

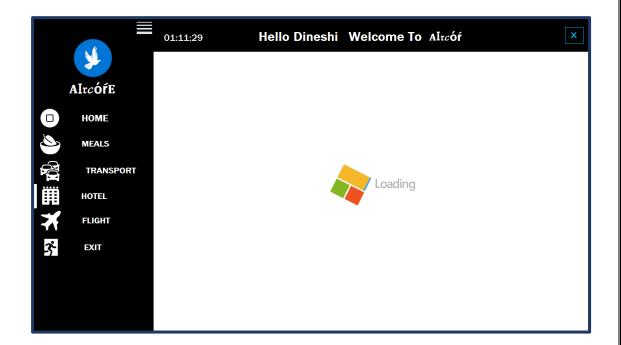


Figure 12 Loading Page for Hotel View

5.1.8. View of Hotels

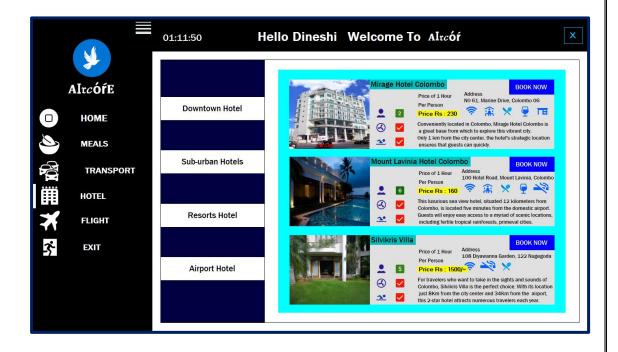


Figure 13 View of Hotels

5.1.9. Transport Options

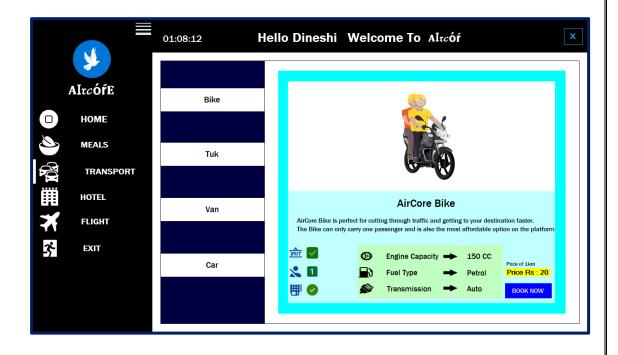


Figure 14 Transport Options

5.1.10. Issue Salary

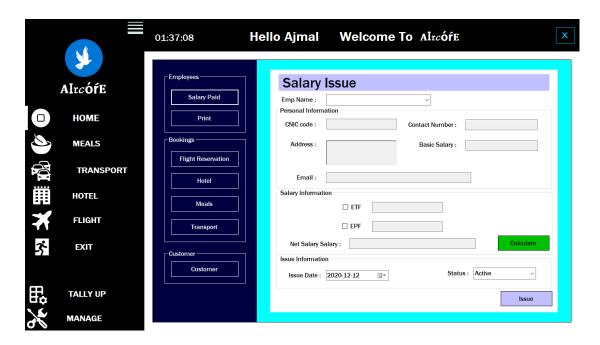


Figure 15 Issue Salary

5.1.11. Report of Flights



Figure 16 Report of Flights

5.1.12. Report of Hotel

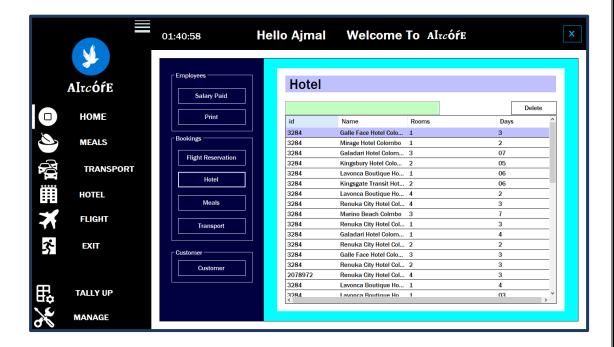


Figure 17 Report of Hotels

5.1.13. Report of Customer

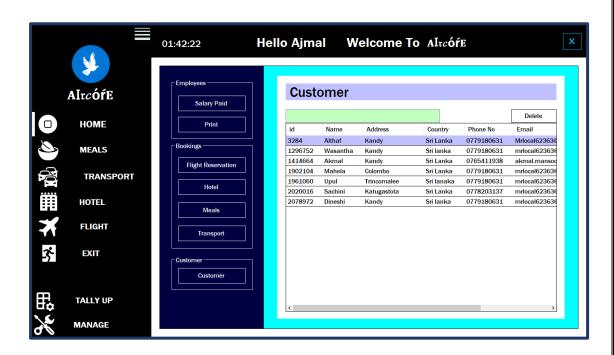


Figure 18 Report of Customer

5.1.14. Report of Transport



Figure 19 Report of Transport

5.1.15. Print Preview of Employee Salary Receipt

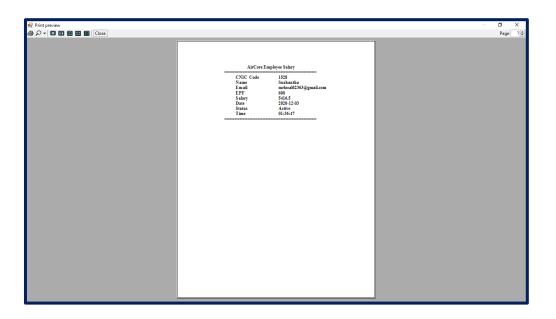


Figure 20 Employee Salary Receipt

5.1.16. Manage Users



Figure 21 Manage Users

5.1.17. Manage Employee

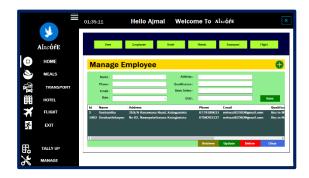


Figure 22 Manage Employee

5.1.18. Manage Hotel

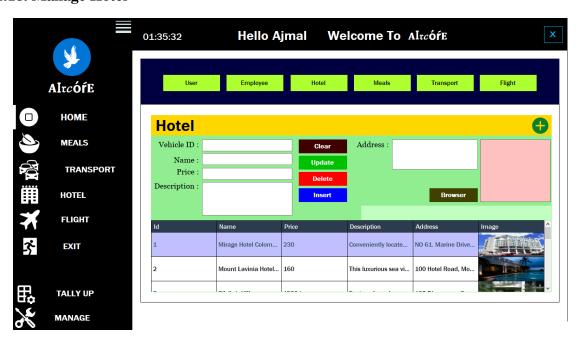


Figure 23 Manage Hotel

5.1.19. Manage Meals

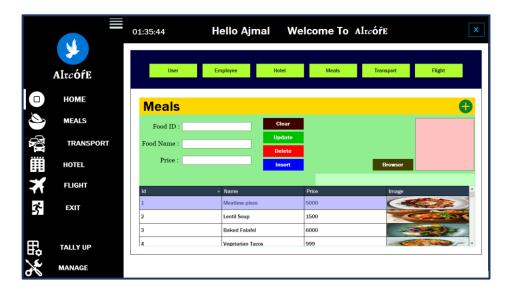


Figure 24 Manage Meals

5.1.20. Manage Transport

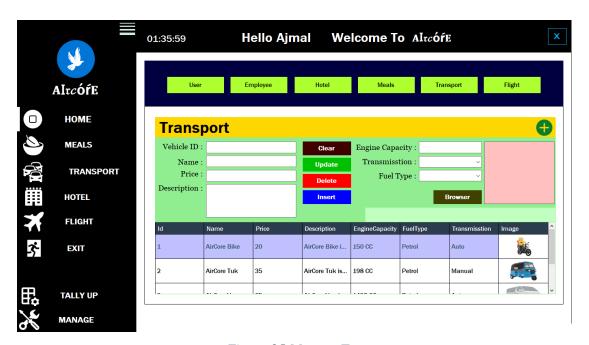


Figure 25 Manage Transport

5.1.21. Manage Flight

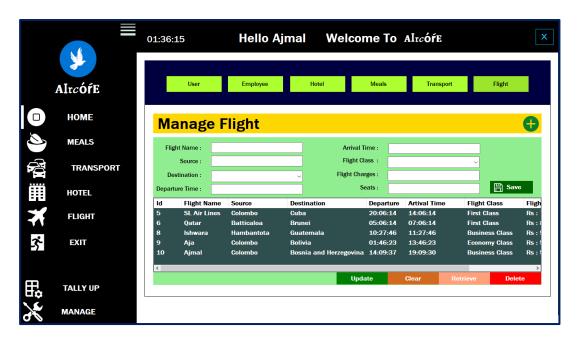


Figure 26 Manage Flight

5.1.22. Email view for hotel booking



Figure 27 Email View for hotel booking

5.1.23. Email view for hiring vehicles



aircore31@gmail.com

to me 🔻

Thanks For Booking AirCore Car

Location: Wellawatta

Estimate Price Rs: 300

Time: 01:09:41

Figure 28 Email view for hiring vehicles

5.1.24. Email message registered customers



aircore31@gmail.com

to me 🔻

AirCore Registerd successfully AirCore Customer ID is 2078972

Figure 29 Email message for registered Customers

5.2 Coding (Selected)

5.2.1. Coding for Customer Module

```
Solizonection cost = non Eqiconection("Data Source-(Locality)(MEDICALITY)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Measure)(MET/T)(Meas
```

Figure 30 Coding for customer module

5.2.2. Coding for Dashboard

```
Inference | Dicherges | Dauthers, Otherges
private void timer1_Tick(object sender, EventArgs e)
{
    if (isCollapsed)
    {
        Leftmove.Width - Leftmove.Width + 15;
        if (Leftmove.Width >= PanelWidth)
        {
            timer1.Stop();
            isCollapsed = false;
            this.Refresh();
        }
    }
    else
    {
        Leftmove.Width - Leftmove.Width - 15;
        if (Leftmove.Width <= 80)
        {
            timer1.Stop();
            isCollapsed = true;
            this.Refresh();
        }
    }
}</pre>
```

Figure 31 Coding for dashboard

5.2.3. Coding for Login

```
string txtMessage = "No User Found";
        ss.SelectVoiceByHints(VoiceGender.Female);
ss.SpeakAsync(txtMessage);
         textBox1.Text = "";
textBox2.Text = "";
         this.Close();
         }
else if (result == DialogResult.Retry) {
halfload waitform = new halfload();
ledimuce | Ochaepes | Ocasion, Ochaepes
private void button2_Click(object sender, EventArgs e)
    string query = "select " from Accounts where Usermanne-" + textBox1.Text + "! and password-" + textBox2.Text + ""; string name - textBox1.Text;
   SqlCommand com = new SqlCommand(query, x);
SqlDataReader r = com.ExecuteReader();
                              ml(char.ToUpper(user[0]) + user.Substring(1));
        String txtMessage = "Hello " + textBox1.Text + " Welcome To AirCore";
      ss.SelectVoiceByHints(VoiceGender.Female);
ss.SpeakAsync(txtMessage);
```

Figure 32 Coding for Login

5.2.4. Coding for Message Box

Figure 33 Coding for Message Box

5.2.5. Coding for Login

```
todowney(indeps_theps_theps_theps_
protoze valid forms_tead(object tender, fountAcgs e)
{
    sqlconnection x = now sqlconnection("Duta Source=(localDB)\\MSQLtocalDB,AttackDB*llename=C:\\Winer\\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Mathrew{MYPP\\Winer\Winer\Miner\Mathrew{MYPP\\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer\Winer
```

Figure 34 Coding for Login

5.2.5. Coding for Display Meals (Selected)

```
reader2.Read();
                                                                                                                                 reader2.Read();
bll = new byte[8];
bll = (8yte[])(reader2["Image"]);
MemoryStream msll = new MemoryStream(bll);
picture12.Image = Image.FromStream(msll);
                                                                                                                               byte[] bl1 = now byte[0];
bl1 = (Byte[])(reader2["Image"]);
MemoryStream msl1 = new MemoryStream(bl1);
picture12.Image = Image.FromStream(msl1);
reader2.Read();
byte[] b12 = new byte[8];
b12 = (Byte[])(reader2["Image"]);
MemoryStream ms12 = new MemoryStream(b12);
picture13.Image = Image.FromStream(ms12);
                                                                                                                               reader2.Read();
byte[] b12 = new byte[0];
b12 = (Byte[])(reader2["Image"]);
MemoryStream ms12 = new MemoryStream(b12);
picture13.Image = Image.FromStream(ms12);
                                                                                                                                 reader2.Read();
reader2.Mead();
byte[] b13 = new byte[0];
b13 = (0yte[])(reader2["Image"]);
MemoryStream ms13 = new MemoryStream(b13);
picture14.Image = Image.FromStream(ms13);
                                                                                                                                byte[] bi3 = new byte[0];
bi3 = (Byte[])(reader2["Image"]);
MemoryStream msi3 = new MemoryStream(bi3);
                                                                                                                                 picture14. Image = Image. FromStream(ms13);
 reader2.Read();
                                                                                                                                reader2.Read();
reader2.Mead();
byte[] b14 = new byte[8];
b14 = (8yte[])(reader2["Image"]);
MemoryStream ms14 = new MemoryStream(b14);
picture15.Image = Image.FromStream(ms14);
                                                                                                                               reader2.Mead();
byte[] b14 = new byte[8];
b14 = (8yte[])(reader2["Image"]);
MemoryStream ms14 = new MemoryStream(b14);
picture15.Image = Image.FromStream(ms14);
                                                                                                                               reader2.Read();
byte[] b15 - new byte[0];
b15 - (Byte[])(reader2["Image"]);
MemoryStream ms15 - new MemoryStream(b15);
picture16.Image - Image.FromStream(ms15);
reader2.Read();
byte[] b15 = new byte[0];
b15 = (Byte[])(reader2["Image"]);
MemoryStream ms15 = new MemoryStream(b15);
picture16.Image = Image.FromStream(ms15);
reader.Close();
con.Close();
                                                                                                                                reader.Close();
con.Close();
                                                  112.Text = reader["Name"].ToString();
                                                  reader.Read();
113.Text = reader["Name"].ToString();
                                                  reader.Read();
114.Text = reader["Name"].ToString();
                                                  reader.Read();
115.Text = reader["Name"].ToString();
                                                  reader.Read();
116.Text = reader["Name"].ToString();
                                                  reader.Close();
con.Close();
                                                  con.Open();
SolDataReader reader1 - com.ExecuteReader();
                                                  reader1.Read();
pl.Text = "Price Rs : " + reader1["Price"].ToString();
                                                  reader1.Read();
p2.Text = "Price Rs : " + reader1["Price"].ToString();
                                                  reader1.Read();
p3.Text = "Price Rs : " + reader1["Price"].ToString();
                                                  reader1.Read();
p4.Text = "Price Rs : " + reader1["Price"].ToString();
                                                  reader1.Read();
p5.Text = "Price Rs : " + reader1["Price"].ToString();
                                                  reader1.Read();
p6.Text = "Price Rs : " + reader1["Price"].ToString();
```

Figure 35 Coding for Display Meals

reader1.Read();
p7.Text - "Price Rs : " + reader1["Price"].ToString();
reader1.Read();
p8.Text - "Price Rs : " + reader1["Price"].ToString();
reader1.Read();
p9.Text - "Price Rs : " + reader1["Price"].ToString();
reader1.Read();
p10.Text - "Price Rs : " + reader1["Price"].ToString();
reader1.Read();
p11.Text - "Price Rs : " + reader1["Price"].ToString();
p11.Text - "Price Rs : " + reader1["Price"].ToString();

5.2.6. Coding for Flight Bookings (Selected)

```
//textbox7
Rectangle rect10 = new Rectangle(370, 240, 130, 30);
SolidBrush blueBrush10 = new SolidBrush(Color.MediumSpringGreen);
e.Graphics.FillRectangle(blueBrush10, rect10);

//textbox8
Rectangle rect11 = new Rectangle(370, 300, 130, 30);
SolidBrush blueBrush11 = new SolidBrush(Color.MediumSpringGreen);
e.Graphics.FillRectangle(blueBrush11, rect11);

//title bar img
g.DrawImage(Image.FromFile(title), 30, 25);

//boarding img
g.DrawImage(Image.FromFile(title), 570, 25);

//ALL IN ONE
Font fBody1 = new Font("Lucida Console", 15, FontStyle.Bold);
Font rfBody1 = new Font("Lucida Console", 15, FontStyle.Regular);
Font rs = new Font("Stencil", 25, FontStyle.Bold);
SolidBrush sb = new SolidBrush(Color.Black);

//title
Font rs1 = new Font("Stencil", 20, FontStyle.Bold);
SolidBrush sb1 = new SolidBrush(Color.Black);
g.DrawString("RDARDING", rs1, sb1, 635, SPACE - (113));
g.DrawString("BOARDING", rs1, sb1, 635, SPACE - (120));
g.DrawString("PASS", rs1, sb1, 670, SPACE - (98));

//Passenger
Font rs2 = new Font("Franklin Gothic", 15);
SolidBrush sb2 = new SolidBrush(Color.Black);
g.DrawString("Name of Passenger ", rs2, sb2, 125, SPACE - (50));
g.DrawString("Name of Passenger ", rs2, sb2, 125, SPACE - (20));
g.DrawString(CustomerName.Text, fBody1, sb2
```

```
//Passenger B
Font rs21 = now Font("Franklin Gothic", 18);
SolidBrush sb21 = now SolidBrush(Color.Black);
g.DrandString("NAVE", rs21, sb21, 556, SPACE - (40));
g.DrandString("NAVE", rs21, sb21, 556, SPACE - (40));
//Filight
Font rs3 = now Font("Franklin Gothic", 15);
SolidBrush sb3 = now SolidBrush(Color.Black);
g.DrandString("Flight", rs3, sb3, 125, SPACE + (10));
g.DrandString(Fname.Text, fBody1, sb3, 125, SPACE + 40);
//SEAT B
Font rs22 = now Font("Franklin Gothic", 10);
solidBrush sb22 = now SolidBrush(Color.Black);
g.DrandString("SEAT NO", rs22, sb22, 556, SPACE + (10));
g.DrandString("SEAT NO", rs22, sb22, 556, SPACE + (10));
g.DrandString("SEAT NO", rs22, sb22, 556, SPACE + (10));
g.DrandString("From ", rs4, sb4, 125, SPACE + (70));
g.DrandString(departure.Text, fBody1, sb23, 646, SPACE + 66);

//to B
Font rs23 = now Font("Franklin Gothic", 10);
solidBrush sb23 = now SolidBrush(Color.Black);
g.DrandString("To", rs23, sb3, 155, SPACE + (60));
g.DrandString("To", rs5, sb5, 125, SPACE + (60));
g.DrandString("To", rs5, sb5, 125, SPACE + (10));
g.DrandString("To", rs5, sb5, 125, SPACE + (10));
g.DrandString("Soat No", rs5, sb5, 125, SPACE + (50));
g.DrandString("Soat No", rs5, sb5, 125, SPACE + (10));
g.DrandString("FROM", rs24, sb24, 556, SPACE + (10));
g.DrandString("FROM", rs24, sb24, 556, SPACE + (10));
g.DrandString("FROM", rs24, sb24, 556, SPACE + (10));
g.DrandString("Filight No ", rs7, sb7, 366, SPACE + (10));
g.DrandString("Filight No ", rs7, sb7, 366, SPACE + (10));
g.DrandString("Filight No ", rs7, sb7, 366, SPACE + (10));
g.DrandString("Filight No ", rs7, sb7, 366, SPACE + (10));
g.DrandString("Filight No ", rs7, sb7, 366, SPACE + (40));
g.DrandString("Filight No ", rs7, sb7, 366, SPACE + (40));
g.DrandString("Filight No ", rs7, sb7, 366, SPACE + 40);
```

Figure 36 Coding for Flight Booking

5.2.7. Coding for Insert Records

```
private void btnins_Click(object sender, EventArgs e)
{

SqlConnection con = new SqlConnection("Data Source=(LocalDB)\\PSSQLLocalDB;AttachDbFilename=C:\\Users\\94779\\Documents\\Air_Ticket_DB.mdf;Integrated Security=True;Connect Timeout=38");
con. Open();
NemoryStream as = new MemoryStream();
pictur=Bbx. Inage. Save(as, pictur=Bbx. Inage. RawFormat);
byte[] img = ms. ToArray();

SqlConmand cmd = new SqlCommand("INSERT INTO hotel(Id, Name,Price,Description,Address,image) VALUES (@id,@name,@price,@Description,@Address,@image)", con);
cmd. Parameters. Add("@id", SqlDbType.VarChar). Value = textid. Text;
cmd. Parameters. Add("@name", SqlDbType.VarChar). Value = textrame. Text;
cmd. Parameters. Add("@name", SqlDbType.VarChar). Value = description. Text;
cmd. Parameters. Add("@osscription", SqlDbType. VarChar). Value = address. Text;
cmd. Parameters. Add("@osscription", SqlDbType. VarChar). Value = address. Text;
cmd. Parameters. Add("@image", SqlDbType. VarChar). Value = address. Text;
cmd. Parameters. Add("@image", SqlDbType. VarChar). Value = img;
Exect/yquery(cmd, "Data Inserted");
clear();
}
```

Figure 37 Coding for Insert Records

5.2.8. Coding for Update Records

Figure 38 Coding for Update Records

5.2.9. Coding for Delete Records

```
reference | Ochanges | O authors, O changes
private void btndel_Click(object sender, EventArgs e)
{
    // MessageBox. Show("You do not have permission to access");
    SqlConnection con = new SqlConnection("Data Source-(LocalDB)\\MSSQLLocalDB;AttachDbFilename-C:\\Users\\94779\\Documents\\Air_Ticket_DB.mdf;Integrated Security=True;Connect Timeout=38");
    con.Open();
    SqlConnand cmd = new SqlCommand("DELETE FROM hotel MHERE Id -@id", con);

cmd.Parameters.Add("@id", SqlDbType.VarChar).Value = textid.Text;
    Exectlyquery(cmd, "Data Deleted");
    clear();
}
```

Figure 39 Coding for Delete Records

5.2.10. Coding for Data grid view (Cell Click and view)

```
Informatic | Dichampto | Bushart, Ochampto
private void dataGridView2_Click(object sender, EventArgs e)

{

Syte[] img = (Byte[])dataGridView2.CurrentRow.Cells[5].Value;

MemoryStream ms = new MemoryStream(img);

pictureBox.Image = Image.FromStream(ms);

textid.Text = dataGridView2.CurrentRow.Cells[8].Value.ToString();

textname.Text = dataGridView2.CurrentRow.Cells[1].Value.ToString();

description.Text = dataGridView2.CurrentRow.Cells[2].Value.ToString();

address.Text = dataGridView2.CurrentRow.Cells[3].Value.ToString();

address.Text = dataGridView2.CurrentRow.Cells[3].Value.ToString();

address.Text = dataGridView2.CurrentRow.Cells[3].Value.ToString();

address.Text = dataGridView2.CurrentRow.Cells[4].Value.ToString();

saddress.Text = dataGridView2.CurrentRow.Cells[3].Value.ToString();

saddress.Text = dataGridView2.CurrentRow.Cells[4].Value.ToString();

saddress.Text = dataGridView2.CurrentRow.Cells[3].Value.ToString();

saddress.Text = dataGridView2.CurrentRow.Cells[4].Value.ToString();

saddress.Text = dataGridView2.CurrentRow.Cells[3].Value.ToString();

saddress.Text = dataGridView2.CurrentRow.Cells[3].Value.ToString();
```

Figure 40 Coding for Data gird view

5.3 Database Tables

5.3.1. Accounts

Field Name	Data Type
Use <u>rna</u> me	nchar(10)
Password	nchar(10)

Table 1 Accounts

5.3.2. Trans

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
Name	nvarchar(50)
Price	nvarchar(50)
Description	nvarchar(MAX)
EngineCapacity	nvarchar(50)
FuelType	nvarchar(50)
Transmission	nvarchar(50)
Image	image

Table 2 Trans

5.3.3. Tra_booked

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
Method	nvarchar(50)
Place	nvarchar(50)
Passenger	nvarchar(50)

Table 3 Tra_booked

5.3.4. Manage Users

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
First_Name	text
Phone	text
Cnic	text
Username	text
Password	ntext
Role	text

Table 4 Manage Users

5.3.5. Salary

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
Month	ntext
Date	nchar(10)

Table 5 Salary

5.3.6. Place

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
Location	varchar(MAX)
Dis	varchar(50)

Table 6 Place

5.3.7. Payment

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
CNIC	varchar(50)
Name	varchar(50)
Bsalary	varchar(50)
EPF	varchar(50)
ETF	varchar(50)
Nsalary	varchar(50)
Issue_Date	varchar(50)
Status	varchar(50)
Email	varchar(50)

Table 7 Payment

5.3.8. Issue

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
Cnic	varchar(50)
Doc	image

Table 8 Issue

5.3.9 Hotel_booked

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
Name	varchar(50)
Room	varchar(50)
Days	varchar(50)

Table 9 Hotel Booked

5.3.10 Hotel

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
Name	varchar(MAX)
Price	varchar(MAX)
Description	varchar(MAX)
Address	varchar(MAX)
Image	image

Table 10 Hotel

5.3.11 Food

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
Name	varchar(MAX)
Price	varchar(MAX)
Image	image

Table 11 Food

5.3.12 Flight

Field Name	Data Type
Fl <u>igh</u> tId	int (Auto Increment)
FlightName	text
DepaurtureTime	time
Destination	text
FlightClass	nchar(10)
FlightChargers	int
ArrivalTime	time(7)
Date	date
Seats	int

Table 12 Flight

5.3.13 Emp

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
Name	varchar(50)
Address	varchar(50)
Phone	varchar(50)
Email	varchar(50)
Qualification	varchar(50)
Bsalary	varchar(50)
Role	varchar(50)
CNIC	varchar(50)

Table 13 Emp

5.3.14 Customer

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
Name	nvarchar(50)
Address	nvarchar(50)
PhoneNo	nvarchar(50)
Email	nvarchar(50)
Country	nchar(10)
FatherN	nvarchar(50)

Table 14 Customer

5.3.15 Code

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
Code	int

Table 15 Code

5.3.16 Booking

Field Name	Data Type
Ti <u>cke</u> tId	int (Auto Increment)
CustermerId	int
Dateofjourney	date
FlightId	int
SeatNo	int
Country	int
FatherN	int

Table 16 Booking

5.3.17 Booked

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
Name	varchar(50)
Required	varchar(50)
Туре	varchar(50)

Table 17 Booked

5.3.18 AddTicket

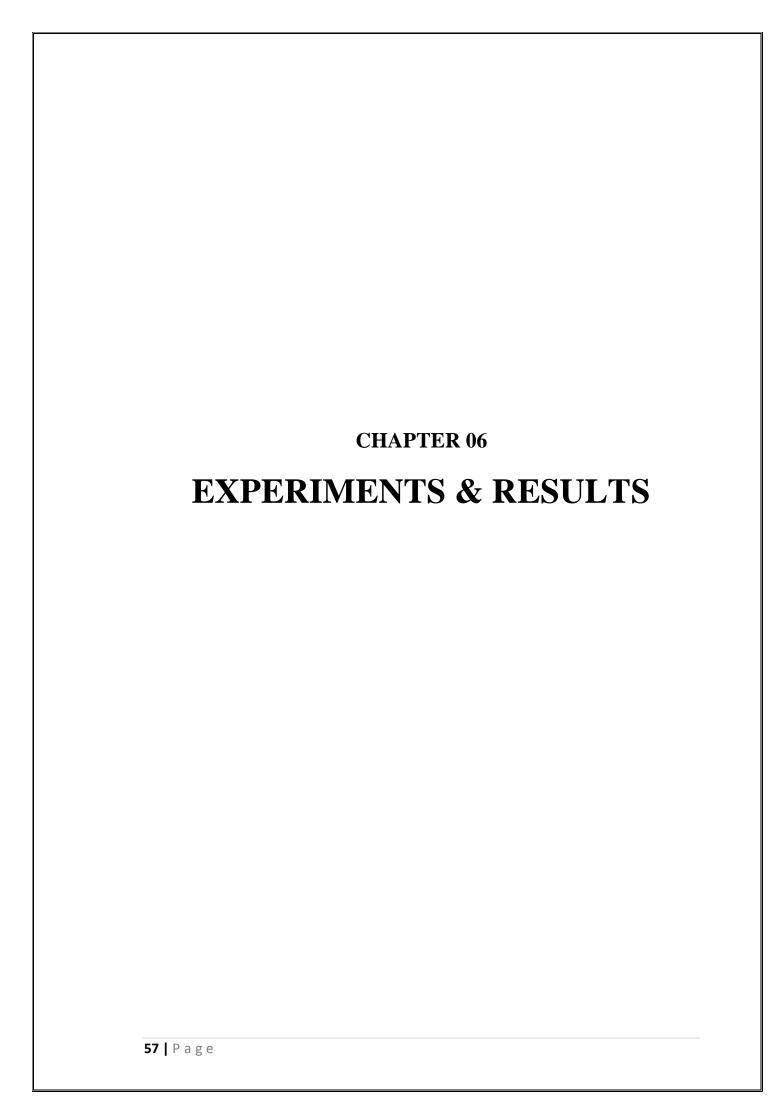
Field Name	Data Type
<u>Id</u>	int (Auto Increment)
TicketName	nchar(10)
TicketNumber	nchar(10)
Tickets	nchar(10)

Table 18 Add Ticket

5.3.19 AddFlight

Field Name	Data Type
<u>Id</u>	int (Auto Increment)
FlightName	nvarchar(50)
Source	nvarchar(50)
Destination	nvarchar(50)
Departure	time(7)
Arrival	time(7)
FlightClass	nvarchar(50)
FlightCharges	nvarchar(50)
Seats	int

Table 19 Add Flight



6.EXPERIMENTS & RESULTS

6.1. Testing Admin Login

Test	Check in Success	Check in Failed
Giving correct password	"Login Successful!"	-
Giving incorrect password	-	-

Table 20 Testing Admin Login



Figure 41 Testing Admin Login 1-HMS



Figure 42 Testing Admin Login 2

6.2. Testing Customer Registration

Test	Check in Success	Check in Failed
Giving correct data entries	"We sent a customer id to your mail"	-
Giving incorrect data entries	-	"Incomplete Data Entry"

Table 21 Testing Customer Registration

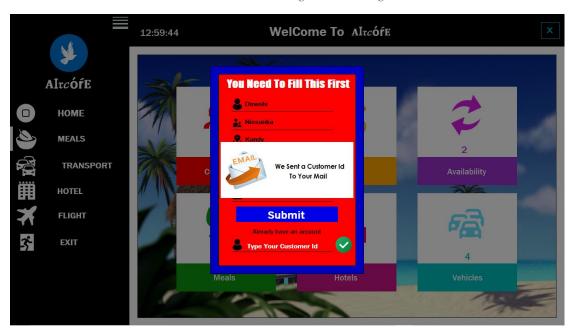


Figure 43 Testing Customer Register 1

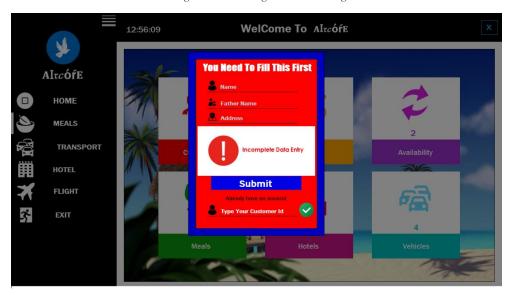


Figure 44 Testing Customer Registration

6.3. Testing Hotel Booking

Test	Check in Success	Check in Failed
Input correct records	"Booked Successfully !"	-
Input incorrect records	-	"Incorrect Data Entry "

Table 22 Testing Hotel Booking



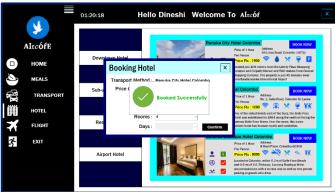


Figure 45 Testing Hotel Booking 1

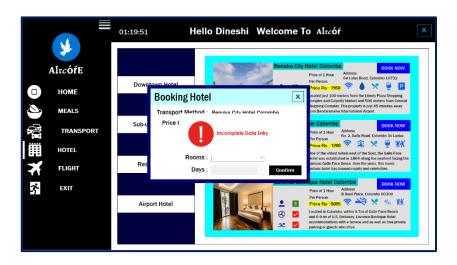


Figure 46 Testing Hotel Booking 2

6.4. Testing Vehicle Hiring

Test	Check in Success	Check in Failed
Input appropriate records	"Booked Successfully!"	-
Input inappropriate records	-	"Incorrect Data Entry "

Table 23 Vehicle Hiring



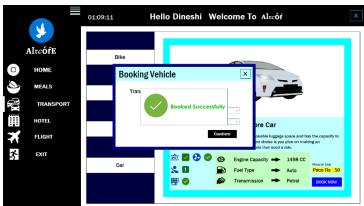


Figure 47 Testing Vehicle Hiring



Figure 48 Testing Vehicle Hiring 2

6.5. Testing Flight Options









Figure 49 Testing Flight Option

7. Conclusion

To conclude the description about the project. The project developed using C#.Net and MySQL is based on the requirement specification of the user and the analysis of the existing system with flexibility and adaptability for the future enhancement. The expanded functionality of the present software requires an appropriate approach towards software development.

Identification of the drawbacks of the existing system leads to the design of automated computerized system that will be compatible to the existing system with the system which is more user-friendly and GUI oriented.

Finally, this Ticket Management System can perform flexibly and efficiently while operate the software and more adaptability with future improvements and enhancements.

8. Future Scope

There are many additional features, which can be planned to be incorporated during the future enhancement of this software. This is a Stand-Alone Ticket Management System; the future version of this software can be a web-based system for ticketing services. At the future version a passenger can surf the flight details through internet and allocate a flight ticket for themselves by register themselves to the ticketing agency. By registering themselves, they will get a username and password for their login. Therefore, passenger can visit to the system whenever and view their flight ticket allocation records.

The proposed software can perform very efficiently, as well as in the future described features can be added to this software.

9. References

- G. Rajkumar , T. Sivagama Sundari. (2019). Ticket Management System Based on Finger Print Authentication. *computerscijournal*.
- Gutierrez, P. J. (2007, July 12). https://patents.google.com/. Retrieved from https://patents.google.com/: https://patents.google.com/
- MUYESHI, P. (2009, April 9).
 - https://www.academia.edu/31425862/TICKET_MANAGEMENT_SYSTEM_Submitted_ by. Retrieved from https://www.academia.edu/: https://www.academia.edu/
- panelNorazahMohd , SukiaNorbayahMohd Sukib. (2017). Flight ticket booking app on mobile devices: Examining the determinants of individual intention to use. *Elsevier*.
- Patrick J. TooleSudhir KrishnaswamyNima MoayediDavid N. LordFrancisco J. Gutierrez. (2007). https://patents.google.com/. Retrieved from https://patents.google.com/
- RESHMI RADHAKRISHNAN, RINSHA P.A, ROOPASREE R. (2014, June 27). *ONLINE Ticket HOSTEL MANAGEMENT SYSTEM*. Retrieved from http://dspace.cusat.ac.in/: http://hdl.handle.net/123456789/8250
- Sujana, A. (2013). *r Trincomalee Campus*. Retrieved from http://hdl.handle.net: http://hdl.handle.net/123456789/696
- Yatera, J. (2014). Ticket Processes management draft report. Computer Sciencee.