**Travel and Accommodation Services Platform for HappyHolidayss (Pvt) Ltd.**

**Final Report**

Name: **Chandrakumaran Subiharan**

London Met ID No: **21038365**

London Metropolitan University

**Declaration**

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**Module Leader: Prof. Ruvan Student ID: 21038365**

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**Dedication**

**Acknowledgements**

I would like to take this moment to thank our dearest project supervisor, Mr. Dimuthu Thammitage for assisting and guiding me regarding each and every aspect of this project. I would like to acknowledge his cooperation in each supervision meeting held.

Also, I would like to thank Mrs. Yamuna Nawarathne who showed patience toward us all throughout the project by providing suggestions.

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This was a great opportunity for me having being doing individual coursework which covers each and every aspect of the system development. I gained and am increasing precious research knowledge and experiences while doing this project. And was able to gather more knowledge and proven the subject. Last but not least, I thank all of my fellow batch colleagues for their support throughout the project.

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**Abstract**

Travel and Accommodation Services system is a web-based application that allows travelers to check for home rentals, tour packages and for accommodation providers to list their property and manage it. At HappyHolidayss (Pvt) Ltd, the traditional method of the Tourist and Partner management system is presently in use which involved the use of papers for storing client/partner information. With this method, there is always a long queue, loss of data, incomplete clients/partner information, and inaccuracy. An online Travel and Accommodation system will be implemented for Happy Holidayss (Pvt) Ltd to solve the existing problems. This system too mainly focuses on component operations like selling Travel and Accommodation Services to customers with a wide variety of Categories and analyze company transaction information under a single framework. Moreover, the convenient features to increase the customer service letting to access a variety of information and the flexibility of the database information makes this system as an idyllic Travel and Accommodation Platform for any.

The basic objective of this extension is to create a web-based Travel and Accommodation Platform for Happy Holidayss (Pvt) Ltd that grants clients to see and reserve a tour, homes in online also for the administrators to manage partners and earnings. There are various web-based travel and accommodation systems which were arranged utilizing the comparable innovations.

The solution was designed and constructed by adhering to the three-tier architecture method along with an Object –oriented approach for the coding phase. The coding was carried out by using PHP version 7.4, JavaScript, jQuery and design was carried out using HTML5 and CSS along with MySQL for database construction process. Apache Xampp server was used as the web server due its limitless compatibilities with PHP applications.

The project has been completed and this report demonstrates the work carried out from scratch. Each chapter describes the work carried out in each phase until the final implementation of the aforementioned Web-based Travel and Accommodation Platform for HappyHolidayss (Pvt)Ltd.

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**Abbreviations**

TAMS - Travel and Accommodation Management System

B2B - Business-to-Business

B2C - Business-to-Consumer

C2B - Consumer-to-Business

C2C - Consumer-to- Consumer

HTML - Hypertext Markup Language

CSS - Cascading Style Sheets

MySQL - My Structured Query Language

U.S - United States

IT - Information Technology

DOI - Diffusion of Innovation

OTA - Online Travel Agency

ERP - Enterprise Resource Planning

OOP - Object Oriented Programming

UML - Unified Modeling Language

GUI - Graphical User Interface

DFD - Data Flow Diagram

SDLC - System Development Life Cycle

PHP - Hypertext Preprocessor

PDA - Personal Digital Assistance

JSP - Java Server Pages

ASPX - Active Server Pages Extended

GHz - Giga Hertz

ERD - Entity Relationship Diagram

PC - Personal Computer

RDBMS - Relational Database Management System

RAM - Random Access Memory

OS - Operating System

TB - Tera Byte

GC - Google Chrome

MF - Mozilla Firefox

ME - Microsoft Edge

# **Chapter 1 Introduction**

People today are living completely different lives than they were years ago since the advent of technology. Technology is one of the main ways to change the world. Whenever, people want to book a stay or tour package also list their property and travel packages, they should go to travel agency in person or they should call them. But this project (Online travel and accommodation platform) will help to connect clients with bookings and listing properties/travel packages on happyholidayss (Pvt)Ltd. agency. “The ultimate promise of technology is to make of a world that we command by the push of a button.” (Volker Grassmuck)

Advances in technology have revolutionized the way we do things. It has provided us with the means to improve our lives and to maximize our sources, our time and our efforts. With the use of these technologies, many transactions have become faster, more efficient, more accurate and more efficient for processing. Technology is important in today's world because it performs numerous functions in many of the most significant aspects of modern society, such as business, communication and education. (Importance of information technology in today world, 2020)

HappyHolidayss (Pvt) Ltd is Travel and Accommodation Services providing Agency located  
in Colombo, Sri Lanka. The business model they currently using is consumer-to-business  
which It is the transfer of services, it is a business model where end users create products and  
services that are used by business and institutions. When it comes to Happyholidayss (Pvt)Ltd  
the accommodation service providers are the end users who serve their accommodation services as product to Happyholidayss (Pvt)Ltd.



Figure 1 Happy Holidayss (Pvt)Ltd Logo (Author Designed)

The current system used by this agency to manage their internal and external process is a paper-based system in all information of transaction are recorded and stored in a logbook. Operation it takes time to look for what they need and it is not efficient because the owner spends a lot of time in finding the record of the old transaction. They’re spending a lot of time in changing the records of transaction if the filled up with wrong information due to human error, according to the manager of this travel agency. because they keep on doing their job manually, it resulted to a very messy office, lots of papers around the desks and information gathered, the proponents came up with an idea of proposing a system that is relevant to the needs of the travel agency, highly efficient to meet their needs and most of all simple. They need to use automated system to make easier with their business. The proposed HappyHolidayss (Pvt) Ltd Travel and Accommodation Services online Platform aims to organize data that computerized the process of managing their valuable customers and partners details and transaction by creating an online travel marketplace while changing the organization business model by C2B to C2C.

Computerized travel and accommodation services platform will be used to track all information pertaining to customer bookings, partners properties management and travel package management within agency. Simply put it is a retail business, that sells travel related products and services to customers, on behalf of suppliers, such as home rentals and tour packages.

The most reason to choose a project like this TAMS is often to form another sort of opportunity for the nationwide new clients to book or list property with all necessities. Which can permit customers to look and make reservation (homes, tours) and for partners (service providers) to list their property, travel packages.

The clients get the opportunity to preserve their claim account by registering in with the personal details and they can search and reserve services. The partners will have additional and main functions, such as managing the home bookings, managing listed travel packages. Finally, the system administrator will have the all-important functionalities that can manage the whole system such as transaction management, client’s management, partner verification and so on. And these functions are not accessible to general users such as maintaining accounts and inserting, deleting, updating and other functions... In addition, the application will use HTML, CSS, JavaScript and jQuery for Frontend development. PHP to implement business execution in the back-end logic, and MySQL as the project database, finally it will be run the project on XAMPP local server technology.

## **Goals**

The main goal is to perform quality, accurate and efficient work from the proposed automated travel and accommodation management system. To build and successfully deploy to happyholidayss(pvt)ltd. for internal use as well as for public use.

**1.1.1 Aim of the project**

The aim of this study is to eliminates the use of paper for storing records in company and develop an interactive web-application that helps potential customers to book a stay and for Partners to list their property in an easy manner. With this system, apart from deciding to make payments at the service provider counter, payments can also be done via online also clients will get enough information about the various travel and accommodation services in Sri Lanka that may ease their travel. Moreover, to business process automation by HappyHolidayss (Pvt)Ltd.

**1.1.2 Objective of the project**

* To arouse the marketing strategies of the business by accommodating digital marketing approaches to the proposed application at the business.
* User Friendly is provided in the app with various controls and the rich user interface system.
* Design a web-based system that makes information more detailed, efficient and accurate and reduces the delay encountered so far with the existing manual system.
* To develop aiming the administrative end whereas the majority access will be guaranteed for the administrator of the application.
* To develop this application in order to reduce the manual payment method which are done using Bank deposits.
* To preserve money which are intended to be wasted at calling the agency or visiting (for customer beneficiary).
* This can give the good security for user information because data is not in client machine.
* The employee information can be stored in centralized database which can be maintained by the system.
* To explore the problems encountered in the management of the existing manual system.
* It can be accessed over the Intranet.
* Manage customers and partners in the source market, and query performance at any time.

## **Motivation**

Technology and tourism are currently two of the fastest growing sectors in the context of the globalization of the world economy. This trend creates an unprecedented opportunity for the development of businesses, institutions and tourist destinations, as well as a growing demand for trained professionals in both fields of knowledge. Tourism organizations are now faced with the challenge of integrating new information and communication technologies into the development of new management and marketing models to strengthen their competitiveness. (Kyrylov, 2020)

Tourism is travel for recreational, leisure, religious, family purposes, usually of limited duration. Tourism is considered an essential activity for nations because of its direct effects on the social, cultural, educational and economic sectors of national societies and their international relations. However, tourism is emerging as one of Sri Lanka's most functional industries. It has a great impact in our nation by helping to create employment opportunities, developing infrastructure and a very rich source of income. By solving this particular problem of tourism management at the national level, it helps to improve the infrastructure development of the country and attracts more tourists. It provides services such as a good transport and communications network, affordable and comfortable housing, essential infrastructure and superb facilities. (Kyrylov, 2020)

The reason to be motivated to undertake a project like this is to preserve more time from busy lifestyles, especially for the college and university students these days from the experiences gained. Moreover, doing a project like this primarily motivates to take challenges which have interesting research background. It provides the prospect to learn about new areas which are very useful for the society by now. One of the major achievements which can be gained is by integrating the manual and automated spheres together to make the whole process as an automated application.

The capabilities like time management are a must which needs to be with author for the resource demands inside this project when meeting with deadlines. Also, sometimes unexpected issues might bounce in when the project commence and should be ready to develop solutions to move forward with the project. When it comes to any type of project like this is to plan properly about the resources and also must eligible to forecast the estimates and the predictions. One of the most important things is to have a knowledge in between everything from business to IT field. It may not seem to be a necessity but it will help to have a basic familiarity within the industry and the types of projects too.

## **Method**

The project was commenced and carried out as follows;

The methodologies which took over to the development of the project is mentioned in the chapter 5. With the meeting took over with the client, all the necessary user requirements were able to identified and outlined to a specification. Step by step, the requirements needed from the developers’ side was identified and put into thought with the client requirements. System designing was done directly after the system analysis and requirement gathering by outlining sketches, prototypes, UML and other relevant DFD diagrams. The developer was able to implement the first few front-end designs which are login, registration and main index of public portal. With the selection of SDLC model, the developer took steps to unit test the system together by showing the designed interfaces to the client to get more live feedbacks.



Figure 2 SDLC of project

The project was carried out by holding to the three-tier architecture. The main reason to select the three-tier architectural plan is because it is the client-server architecture in which the user interfaces, data access and storage and the business processes are managed. Moreover, any of the three tiers can be upgraded independently when needed. According to the previous experiences gained it was easier for the author to select when making changes in the logic of the business and when changing for new GUI environments, this plan is faster and easier. The reusability of the logic is immense, like it can be used with other projects and will be helpful for further use. The database is more secured because the clients cannot access it directly. The resistance to change, availability, reusability and scalability is high in this architecture.

The diagram architecture of the system is based as follow;

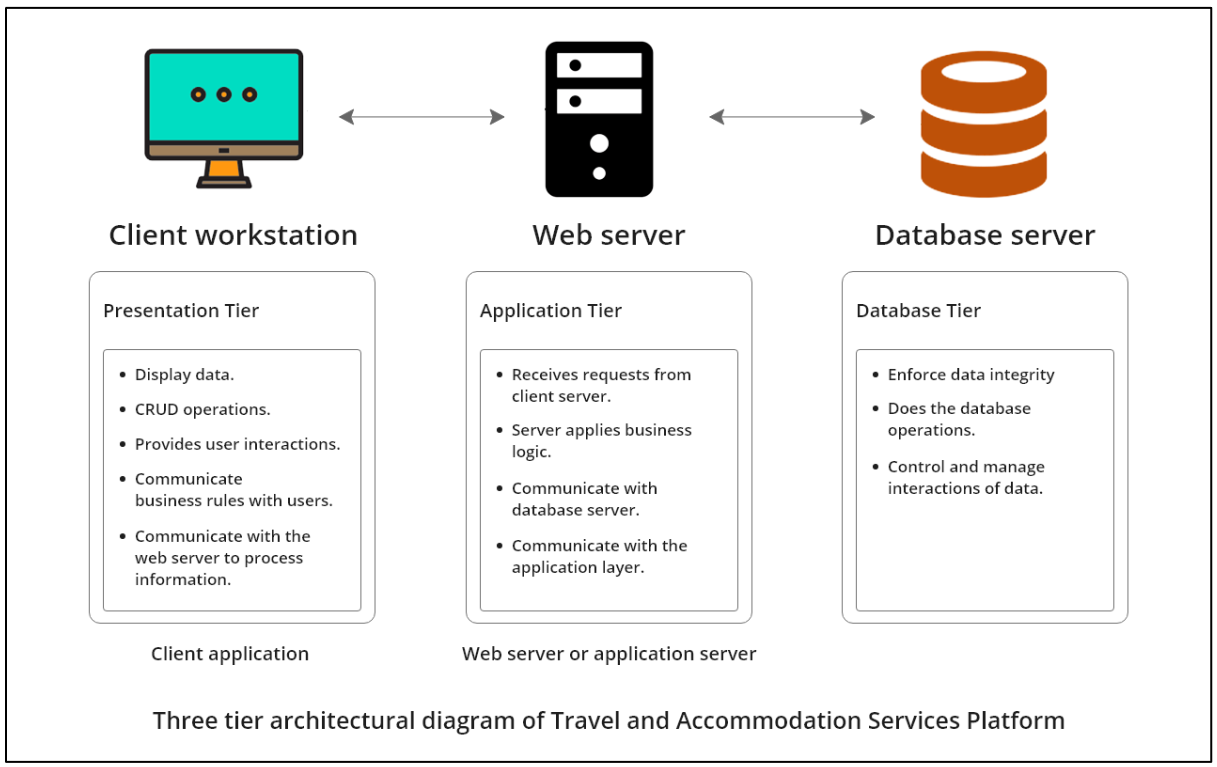


Figure 3 3 Tier architecture

Beneath the quantitative method dependence is put on inquire about methods to acquire the information. it is much more helpful to summarize information utilizing quantitative models. The nature of questionnaires is in a general sense qualitative in conception, since they include a few of the abilities within the development, and administration of it; but on quantitative in its extreme execution; since the results are more often than not communicated in quantitative terms. There are two sorts of information that can be collected: primary and secondary data. Primary data are data the author of the project have collected for their observational consider. That have been done through questionnaires and surveys. After looking at the reason of this study, it has been chosen to utilize a blend between qualitative and quantitative inquire about in arrange to assemble a more profound knowledge on the accessible information.

**Applied Method**

For the reason of gathering pertinent essential information for this proposal work, two distinctive methods were utilized as phone interviews and surveys to the real client and for few common public customers of them.

***The questionnaires were measured and coded as clarified in Appendix B and in chapter 6.***

## **Overview**

To foster a web-based application for the proposed solution, various Technologies should be considered and perceived. These incorporate the three-tier architecture (mentioned in chapter 1 - 1.3), server and side scripting techniques, the implementation techniques like PHP, programming languages (like JavaScript, jQuery, HTML 5 and CSS), and relational database (like MySQL).

**Incorporating of the web application and database**

In this project, MySQL is utilized as the backend database. MySQL is an open-source DBMS. MySQL is a relational DBMS which stores information in various tables, instead of in one goliath table. These tables can be referenced to one another, to get to and keep up with information easily. Can be utilized to change needs because of the efficiency. To work on the presentation, MySQL is multi-threaded database engine. Numerous users can perform read activities at the same time, yet while writing, just hold up another user that requirements admittance to the information being refreshed.

The public portal client requesting from this web-based commerce site ought to have the alternative to urge information about the platform of happyholidayss(pvt)ltd, select things they wish to purchase and yield installment data when checking out. The store organization were given the capacity to take after slants and interaction of the book things to prepare the orders. So an productive database is fundamental for the upkeep and the improvement of this site. Essentially in a static Web page, all the content is distinguished and set when the page is created.As the developer get to a static page as for the solution of Emma, the page reliably appears a comparable data and alter once in a while concurring to the regulatory needs. In a dynamic Web page of course the substance contrasts subordinate on client data and data got from outside sources.

A data-based Web page is specified when a client clicks a hyperlink or a button on a Web page structure. Within the event that the ask comes from clicking a hyperlink, the joins specifies either a Web server program or a Web page that calls a Web server program. In a few cases, the program plays out a static address, for case, retrieve all information required from the Stock. This address doesn't require any client input, because the results changes depending on when the request is made. The request is made when the client can click a button, rather than a hyperlink, the web server program commonly uses the structure inputs to create an address.

For instance, the client may choose five books to be bought and what's more, at that point yield the commitment to the web server program. The web server program at that point, at that point, administrates the arrange, making a effective Web page response to assert the trade. In either case, the web server is liable for sorting out the inquiry results by including HTML labels. The web server program at that point, sends the program's yield back to the customer's program as a Web page.

**Website page Programming Options**

As all other Ecommerce stages this web application can make data-based Web pages by using

server side and client side taking care of advancements or a half breed of the two. With server-

side preparing, the web server gets the interesting Web page demand, performs all processing

critical to create the page, and a short time later sends it to the client for appear within the

client's program. Client side dealing with is done on the client workstation by having the client

program execute a program that collaborates directly with the database.

**Technologies acquired:**

HTML which is the standard markup language is utilized to develop the application forms. HTML components structure the website, everything being equal. Is use to make interactive forms. It gives a way to make organized documents by indicating primary semantics. It can insert scripts written in dialects, for example, JavaScript which influence the conduct of HTML pages.

CSS was expected to permit to isolate content from design so HTML could perform a greater amount of the capacity that it was initially based on the markup of content, without stress over the plan and layout. CSS are the specialized specification for a design. A stylesheet for a Web page fills a similar need, yet with the added functionality of likewise telling the web browser how to deliver the document being seen.

What recognizes PHP from something like client-side JavaScript is that the code is executed on the server, producing HTML which is then shipped off the client. The client would get the consequences of running that content, however would not know what the underlying code was. Can even arrange the web server to handle all the HTML documents with PHP, and afterward it's absolutely impossible that the client can determine what have at the disposal.

Methodology used

Source Code Editor

Frameworks

# **Chapter 2 Background and Problem Statement**

## **Introduction**

The primary mode of travel services marketplace and management in happyholidayss agency is done manually and in order to gain more profit and add efficiency for the transaction purposes, the clients decided to come up for a automated system to manage the marketplace and public online booking to increase the accuracy in placing reservations and managing it. This chapter basically analyze the existing relevant literature about online travel and accommodation platforms and ecommerce.

**2.1.2 Background**

The web has been favored by increasingly individuals for its high effectiveness and abundance, and e-commerce has emerged. The online travel services marketplace may be a shape of e-commerce and reservation deals industry in one shape, it has numerous improvements, Ninety-one percent of U.S. consumers use the Internet to book travel online, rather than going to a physical travel agency, due to the speed, time, convenience, and satisfaction of using it. The Internet offers consumers the advantage of making travel purchases online by dealing directly with travel suppliers (Hashim, Ismail, Awang, & Safri, 2014). Internet travel sales totaled over $ 565 billion in 2016 (Agag & El-Masry, 14 2017). Internet sales will increase continuously over time; as more and more businesses adopt Internet application systems (Del Chiappa, 2013). Economic growth and IT development are driving high demand among international travel customers (Wei-Lin & Hsin-Pin, 2012). Travelers actively search various websites (e.g., Expedia, Priceline, and Airbnb) on the internet to meet their travel needs and find deals. The travel industry has faced drastic changes when it comes to B2B e-commerce and B2C e-commerce as many people purchase travel products and services over the internet (Siddiqui & Khan, 2016). Travel agencies should adopt e-commerce technology to increase their competitive advantage and boost their marketing efforts (Menon & Yao, 2017). Information and communication technologies, e-commerce applications have a great influence on businesses around the world. Internet application systems such as e-commerce and B2B have grown since 2011.

At present, an enormous applications and websites can be found easily regarding the Travel ecommerce field. Simply by giving a click to a web browser, can be easily navigated in to a variety of websites.

Every famous travel reservation system available in Sri Lanka consist of public portals which includes stay, tour bookings, search filtering, online pay options, user profile management. Thus, for the development of the provided solution for happyholidayss the functionalities of few travel service providers systems were examined. Without examining the nature of the prevailing systems, it would be much hard to develop the system. When it comes to the internal portals of all systems the services managements, service type, reports, tracking of reservation is a must. Was able to come up with solutions to include the features of travel and accommodation system in to the happyholidayss solution as well. But comparing to the very well-known applications, the requirements of the happyholidayss client is less as well as the functionalities which have developed is less. However, the functionalities which have been designed and developed for happyholidayss is perfectly required and relevant to their medium business.

Because the study of existing systems helped to gather requirements and to limit the project by identifying most important features requested by client that the system should consisted by eliminating various scope creeps and requirement anomalies.

## **Literature Review**

Present the ‘state-of-the-art’ of product/systems in this area. You should organize this in some other way than by company or by date in order to show your understanding!

During the last decade, technological innovations have changed people’s lives and the way that owners conduct business (Dash, Bhusan, & Samal, 2014). Since 2013 Travel agents use the Internet to market products and services, provide customer service and support, perform electronic transactions, and gather information. The Internet is an electronic platform whose users seek to implement technological innovations, establish new business practices, and change the competitive advantage of many industries, including the travel and tourism industry.

(Xiang et al., 2014).

**Introduction to E-Business**

E-business improves efficiency, productivity, and performance in many businesses and industries around the world (Sun & Ifeanyi, 2014). E-business enhances revenue generation for small and large firms (Franco, Santos, Ramalho, & Nunes, 2014). Many leaders are developing business models to evaluate the effect of e-business (Wynn, Martin, & Lau, 2013). E-business can reach customers globally and can promote success in business operations (McElheran, 2015). Leaders who implement e-business in their firms must reorganize and restructure continuously, and teach their employees how to implement an IT strategy (Chong, Ooi, Bao, & Lin, 2014). Internet technology affects business processes by moving physical activities online or making physical activities more cost effective than traditional methods for suppliers and customers (Porter, 2001). E-commerce has dominated the travel industry worldwide and has allowed businesses to grow and provide for customers’ needs (Akaka, Vargo, & Schau, 2015). Many consumers are leaving traditional brick-and-mortar travel agencies and turning to e-commerce websites or OTAs to plan and book personal and leisure travel (Bilgihan, 2016). In 2016, online travel sales exceeded $565 billion because of Internet travel commerce (Agag & El-Masry, 2017). In 2016, 36.7 million U.S. customers purchased travel products and services over the Internet using electronic devices, an increase of 16.0 million since 2012 (Law, Leung, Lo, Leung, & Fong, 2015). Internet technologies and applications allow customers to acquire and purchase travel and tourism products directly from travel suppliers (Morosan, 2014). Consumers are looking for cost savings when shopping for travel.

E-commerce and e-business are both prime components of business strategy and very important for economic development (Georgiadis & Chau, 2013). When implementing business processes and technologies into their organizations, leaders in traditional travel agencies should ensure that processes flow effectively, and that information is available to meet customers’ needs (McElheran, 2015). Business owners who adopt e-commerce technology into their organizations generate more revenue than business owners who do not adopt technology (Khan, Liang, & Shahzad, 2014). Many travel agencies, retail, and wholesale companies implement the same business structure. The stakeholders are similar: customers or travelers and technology providers; suppliers; and intermediaries (i.e., retail travel agencies and wholesalers); (Soto-Acosta, Colomo-Palacios, & Popa, 2014). The retail, wholesale, and travel and tourism companies also procure the same e-commerce business models. Wholesale travel agencies use the B2B business model, retail travel agencies use the B2C business model and agencies who conduct business as travel marketplace platform use the C2C business model (Tussyadiah, 2015). C2C signifies a market environment in which one customer purchases Products from another customer using a third-party platform to facilitate the transaction. (Traver, 2020) In this happyholidayss (Pvt)Ltd. Study, this agency is using C2C business model by enabling people to lease or rent short-term lodging including homes and tours.

**Customer-to-Customer E-Commerce**

In 2010, the travel and tourism industry saw a dramatic increase in travel and online bookings, thanks to advanced Internet technology and networks (Vladimirov, 2015). C2C e-commerce is the process of making transactions between customers and client entities over the Internet or the World Wide Web. C2C marketing has gained popularity with the advent of the Internet and companies such as Airbnb, Agoda homes, Booking.com. (C2C Guide, 2020) Global networks and emerging delivery models are the main drivers of C2C e-commerce (Hanna, 2016). The C2C marketplace is becoming increasingly popular with sellers looking to maximize their sales potential by connecting with customers they might not otherwise be able to reach using traditional selling methods. In the United States, 2019 saw over 100 million visits to the leading C2C and buy / sell. (C2C Guide, 2020)

**Customer-to-Customer Model**

The C2C market has evolved since the late 1990s largely thanks to the Internet and e- commerce.

The C2C model predicts transactions between consumers. Here, a consumer sells directly to another consumer. Booking.com and Airbnb are common examples of online Travel Marketplace websites that provide an opportunity for a consumer to advertise and sell their product online to another consumer. However, it is important that both the seller and the buyer register on the website. Usually, the seller has to pay a fixed percentage of the amount to the website when he rents a product to another consumer, the buyer should also pay a specific percentage to the website to make this transaction possible through the online platform. The site brings the buyer and seller together to do business. Figure 1 shows two consumer (consumer 1 and consumer 2) and a website that provides space for advertising. Customer 1 places an ad on the website about the products they want to sell, and Customer 2 visits the website to find the products they want to buy. The transaction between customers continues until payment is made and the product is delivered. (Dane, 2019)

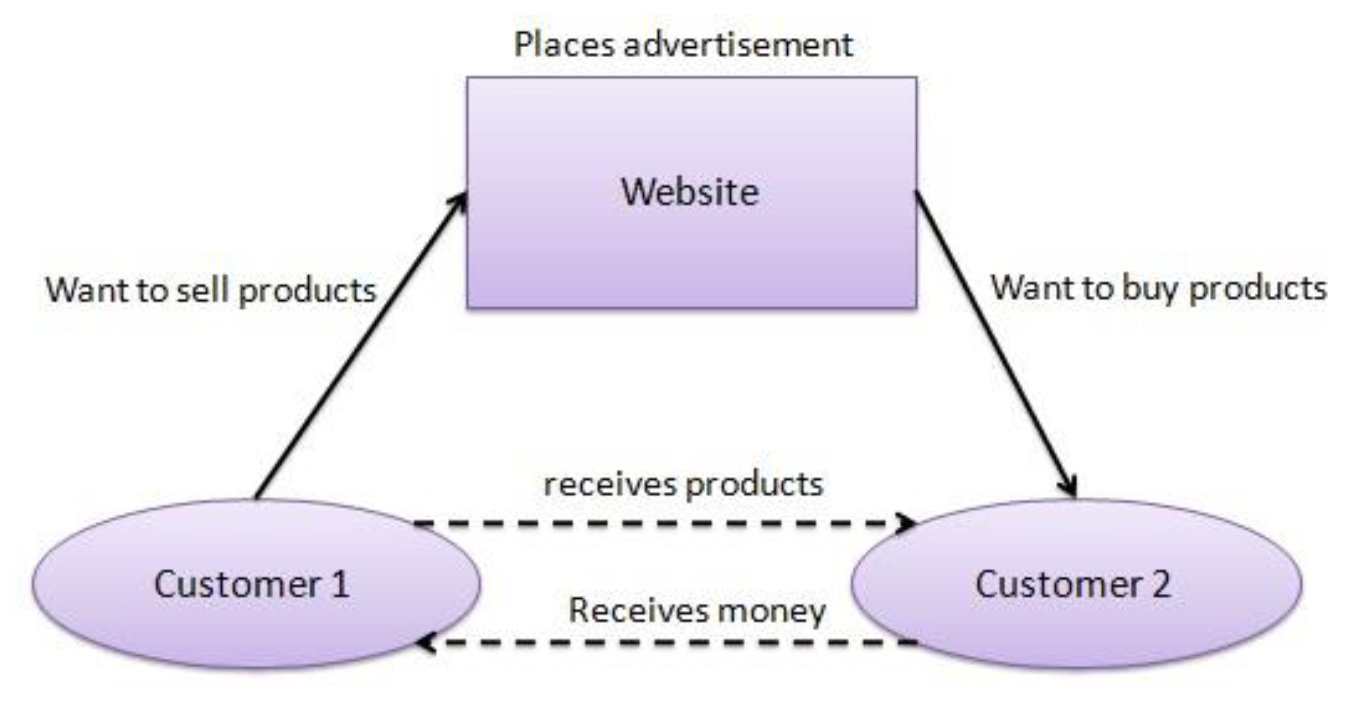


Figure 4 C2C business model (Dan, 2019)

**The Role of Travel Agencies**

The role of travel agents working in traditional brick and mortar retail agencies is diminishing, due to the emergence of the Internet and new innovative information technologies. Travel agents face challenges to reinvent roles and increase sales and revenue due to online travel agencies and travel intermediaries that have emerged in the global market (Zare & Chukwunonso, 2015). E-commerce offers consumers the ability and freedom to search for travel online, compare prices to popular destinations, and book leisure and business travel online, without using the services of traditional travel agencies. (Bandara and Silva, 2016).

**E-Commerce Adoption**

Traditional brick-and-mortar retail companies, threatened by online e-commerce retailers, are establishing themselves in online markets (Siddiqui & Khan, 2016). In 2017, consumers in the U.S. spent more than $760 billion in online travel purchases. Statistics revealed that 80% of customers who use the Internet and purchase products online are less than 30 years old (Siddiqui & Khan, 2016).

Abou-Shouk, Lim, and Megicks (2013) and Roma, Zambuto, and Perrone (2014) reported that travel agencies must find another approach to reach customers and increase profits. The researchers determined that adopting e-commerce could provide travel agencies with the knowledge and flexibility to survive in the industry. E-commerce adoption can be initiated from the slow adoption stage and progress to the final stage by using advance technology to perform electronic processing (Abou-Shouk, Lim, & Megicks, 2013). E-commerce adoption consists of various stages and different levels. The adoption process includes three stages: (a) adoption, (b) implementation, and (c) post-implementation. Studies have shown that productivity growth increases five times higher for organizations that decide to adopt e- commerce processes into business models than companies who decide not to adopt e- commerce (Abebe, 2014).

E-commerce adoption has a positive effect on customers and businesses because they can conduct financial transactions online without having to walk into physical locations. Adopting e-commerce has made businesses and consumers lives easier and productive.

**The Major Modules of The System**

Booking through the TAMS provides access to supply arrangements for:

* Home reservations
* Tour reservations

Tours and Homes Reservations

homes and Tour reservation has made reserving the homes and Tours easier and thus made the homes and Tours a lot more popular. There is availability of homes and Tours almost at all times. It is not like the Hotel Booking that are most of the times busy. The TAMS online house and tour reservation facility is a great advancement for making the reservation easy for one and all. Now, one can save the time and energy which he/she would need to invest in going to the company and reserving the unique homes or tour. One thing that one has to do is to search for the website of the travel company that provides the services necessary to travel. This has made the online home and tour reservation easy for the customers. On the website, customers will be asked to fill up a form for reservation. On the website itself, the information about what all the chargers and the services are gotten. As the booking and the transaction are online, the payment has to be done with debit card or bank transfer. Customers can also change their plans and cancel the reservation in online. HappyHolidayss (Pvt) Ltd portal will charge reservation prices from the customers.

**Reserving an Accommodation**

Prior to internet, travelers could write, telephone the accommodation service provider directly, or have to use a happyholidayss travel agent to make reservation. Nowadays, our travel agent has pictures of rental properties, information on prices and deals, and even information on local resorts. Online home reservations are also helpful for making last minute travel arrangements. Online TAMS also provide Homes and Tour reservations to most travelers and allow for management of lodging locations and allow date amendments and cancellations online. The location information of the property is listed on the property description page. All the information regarding the property and service provider is listed on the description page. All the information regarding the property (such as facilities and rates) is also located on each property’s web page.

Likewise, when travelers are planning for a vacation, it’s important to consider where they are going to stay. It is essential to always consider the place where they will stay during the rest of your vacation to prevent hassle and inconveniences. Property reservation and booking of some is time consuming. For them, doing such is very tiring, that is why they usually have a hard time dealing with these things. Usually, customers may contact the hotel directly 24hours after they have made their online booking, to confirm that the booking has appeared in the travel agent’s local computer system. The ultimate service provided by TAMS to the partners and the online travelers is that it provides a single database from which all reservation sources draw immediate room availability and rates. Travelers need to understand that property renting rates vary. So, to get the best, they will need to spend some time researching and may need to negotiate price when making reservations. Whether the property is booked, the destination and travel dates are filled to see a list of available properties. After making reservations, the traveler will always receive a confirmation e-mail with all the details and contact information for the booked property.

**The Need for Travel and Accommodation Management System**

TAMS offer direct access to variety of choices including Different types of Homes and Tours. This allows one to see any deals and alternatives available, and gives the opportunity to choose the best package according to available budget and travel needs.

For travelers to be able to tweak their own travel plan to suit their personal needs is particularly important. This is something that HappyHolidayss (Pvt)Ltd explicitly recognizes and conveniently works to provide for their customer. With offline manual bookings, this is not the case.

One of the greatest benefits of using TAMS is the ability of a traveler being able to arrange trips in his/her own time, at their own pace and without any sort of pressure or human influence. Another beneficial aspect of the system is the flexibility offered to customers which collocate with the service offered by HappyHolidayss (Pvt)Ltd. HappyHolidayss is restricted to office opening hours, but there are no time constraints with TAMS. One can make reservations any time of the day, any day of the week (24/7).

**Existing Travel and Accommodations Service platform’s**

A travel and accommodations service platforms are business that operates as the intermediary between the travel industry (supplier) and the traveler (purchaser). Part of the role of the travel agency is to market prepackaged travel tours and holidays to potential travelers. The agency can further function as a broker between the traveler and hotels, car rentals, and tour companies (Westcott, 2020). Travel agencies can be small and privately owned or part of a larger entity. There few applications currently active in Sri Lanka which provides good service although it does not support to low budget reservations. The Applications are shown below;

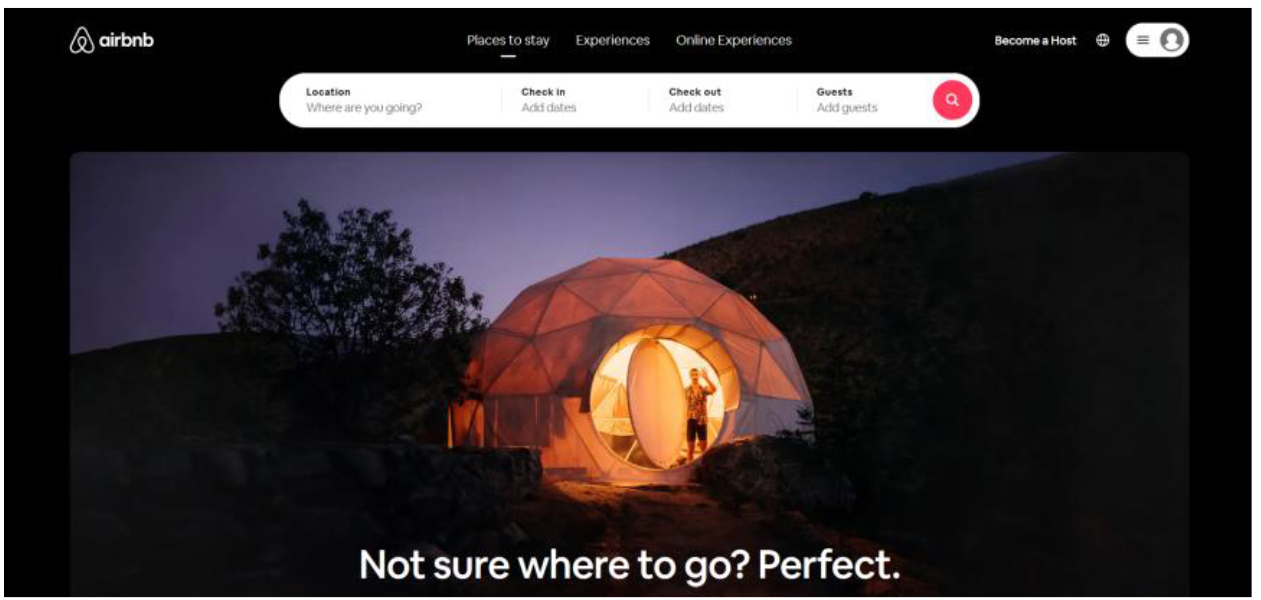


Figure 5 Airbnb (airbnb.com,2022)

**Booking.com**

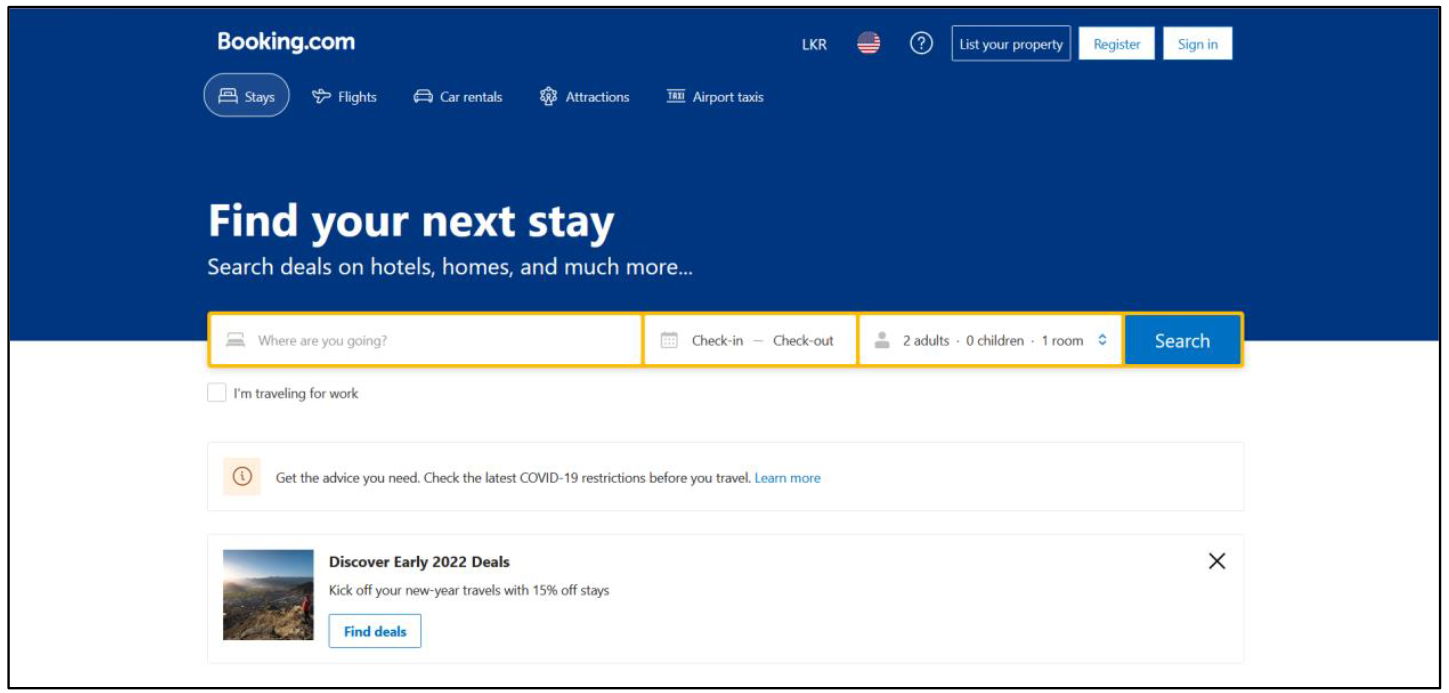


Figure 6 Booking.com (booking.com,2022)

**Agoda**

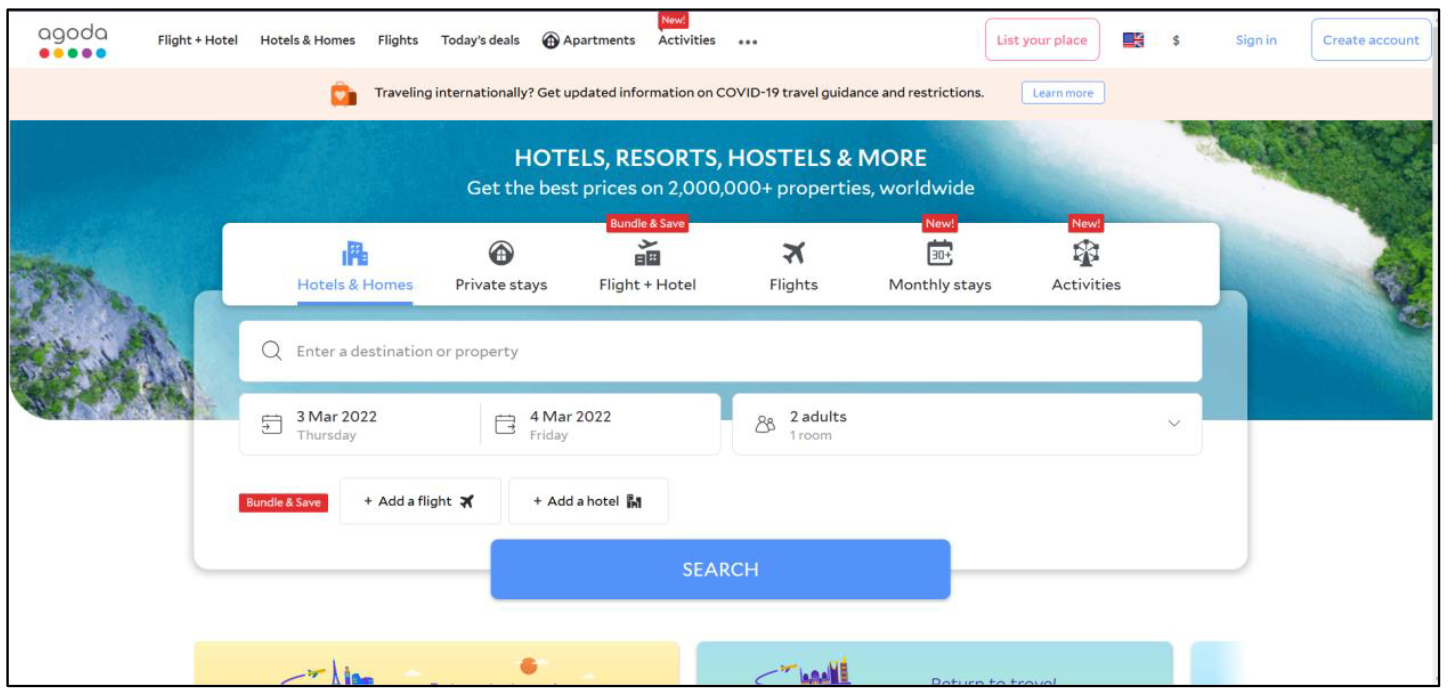


Figure 7 Agoda (agoda.com,2022)

## **Problem Statement**

Since HappyHolidayss (Pvt) Ltd has a manual system for booking and managing customer transactions, they face some issues in issuing customer reservation requests. Everything necessary things for the reservation is done in paper format. As a result, it has become very difficult for staff to keep the records up to date. For example, if customers need to change their arrival date, it becomes difficult for them to find the customer reservation details to update because there are so many customer reservations records. Again, with the current system, customers can't provide feedback online, and staff can't respond quickly either. Additionally, tourists from other countries and towns should call directly for reservations. Therefore, they may not be able to view apartment rooms or hotel rooms before booking.

As it stands, the management of HappyHolidayss (Pvt) Ltd has attracted a few clients over the years due to errors inherent in the manual system. It is no longer a novelty that the loss of customer contact details, the reasons are not far-fetched. Due to this manual procedure involved in booking and processing transactions, customers have no choice but to be at the mercy of these error-prone procedures. The method of storing information in the company is poor. This limits the number of official documents that can be accessed by clients as the manual system cannot handle old information that might be useful to be a client at all times. There is little or no security control system to protect client documents and confidential client information from unauthorized access.

A much-known reality is that human work which are powerless can cause blunders and will be a diversion for the clients moreover due to the exhausted or else inept group individuals. This automated framework will still require a human interaction but it diminishes a number of problems. The web application will perform the demands and it is more productive since it is less inclined to form any botches. With the physical interaction with the HappyHolidayss agency, it is unable to protect time and it'll take time to book a stay or list the property. The time for book a stay and property listing can be decreased by means of this online web application, with a few clicks without any help of human since all features are virtual rather than physical. In spite of the forthright costs for the establishment of the application and the equipment’s, it spares the benefit over time on the staff differentiating with the manual procedures.

**Proposed solution for the given problem statement**

To overcome the existing issues regarding managing and booking stays/tours, this project aims to reduce the issues while saving both time and effort of the users. The system will be designed for any kind of users with a user-friendly access to the system through some brainstorm sessions conducted with the client. The system information will be stored and analyze interactively and will be only accessed with an online internet connection. The system which is to be designed have following features like;

* Accessibility to the system at anywhere by anyone with simple internet connection.
* Accuracy and flexibility to handle data at any time.
* Faster retrieval and better storage system and rapid system response time.
* Application needs to store information about new entries of homes, tour packages, partners, customers bookings and etc...
* Application needs to guarantee the access to the internal staff to manage the partners and booking status and all.

It’s clear to see how this approach might be a very good way to address the existing issues they’re currently facing. if this problem is solved local and foreign tourists can easily reserve stays and travel activities on the website with more information’s which would help them to get best decision on their travel plan. In addition, happy holidays (Pvt) Ltd. business process with accommodation service partners can become both easier and more effective with this travel and accommodation booking web-application. As a result, this would create new opportunities to many accommodation providers also it benefits happyholidayss (Pvt) Ltd. so considering mentioned solutions to the problems.

Since the proposed system is a web application it should be developed for the best execution including the graphical user interfaces for navigating among the application, must consist of dynamically configurable system interfaces and pictorial representation for better system attraction from customer and partner accesses.

# **Chapter 3 project management**

The project management is the process on which the project development is carried on starting from finding the client up to deploying the service. According to (ultimatesdlc, 2015), management of any project is setting up clear planning, controlling and organizing and reporting phases up to the successful completion of the project. This chapter consist of the overview and the deliverables involved in the project management and the importance is on the efficient execution of the modules and its components and the improvements which took place. The end result was enhanced with quality by creating efficiency for the happyholidayss staff and the public users.

## **Approach**

The planning of the project took place after the project proposal approval. Several researches were taken in this background because travel and accommodation systems can be seen and accessed everywhere these days. Since HappyHolidayss agency is a medium scale and is a growing business, a well-suited application is planned to design and develop according to the client requirements.

The project topic was chosen when selecting a real client at the same time considering about the problem domain of the client. Then after the project topic approval, requirement gathering and analysis is done to furthermore build up the project proposal. Project proposal was very much essential to be done before the commencement of the project to outline the modules, data flows and other architectural components of the system. As per the guidance and deadlines set up the initial proposal was made. At this stage, the methodology which is needed to the system design and implementation, data flow diagrams, architectural diagrams and other UML diagrams were identified and designed for further system clarification. Researches and comparison researches were undertaken while designing the system initial plan.

A wise plan had to be undertaken when selecting the most suitable development model since the real client business is a small scale and need an efficient system to manage their components. As the developer and need to interact with the real client to get satisfactory feedbacks, to create new modules after each phase the model which is iterative SDLC model have to be chosen.

The system implementation phase is planned after all the designing and analysis phases are done. First the sketches and prototypes were analyzed before putting those to direct implementation. Front end designs were developed and at the same time the back end of the system was also started to develop. There was a breakage of the initial project plan due to lack of time maintenance (mentioned in 3.3) and was able to be on track to develop the system. The execution has been finished utilizing PHP. PHP has been utilized to associate with the backend data base. In this execution, MySQL Server has been utilized as the backend RDBMS. PHP processes the data sources or commands given by the client and interprets them in the orders reasonable to the backend database. The yield delivered by the backend data base is additionally dealt with by PHP which then showed on the Browser screen.

The system testing which includes Blackbox and Whitebox testing together with a user acceptance testing was carried out to ensure that all requirements in the design specification is met.

The technical background will be defined in this report with the design, implementation and testing backgrounds while the basic descriptions and essential functionalities are mentioned in the proposal. Moreover, a user manual will be handed over to the client which consist of the information regarding the operations and system information.

## **Initial Project Plan**

System analysis and requirement gathering specifications regarding the software, hardware, users, functional and non-functional requirements are gathered and documented on the project proposal and have presented and have done according to the form Gantt chart. After gathering requirements, the architectural plan and the logical instructional flows of the system to be made was designed. The architectural, ERD, sequence, DFDs, flowcharts, use case, activity diagrams are outlined for further purposes when implementing the system and documenting.

After the designing stage, author started to implement the system. First the databases were designed for the relevant objects of the system. Moreover, quick researches for the implementation of the system were taken by the author because of the selection of the languages. It was tough when identifying and implementing relevant codes for the system interface implementation. Prototyping the system was done but changes keep happening in the prototype designs as well. The below Gantt chart is the former milestone chart mentioned in the project proposal

Initial project Gantt chart

Evidently, not every task as mentioned in the former Gantt chart is fine and that is why the author had to take a decision to expand the time, giving a thought to the amount of time remaining.

## **Problems and Changes to the Plan**

Identify problems you faced that caused you to change the plan, and justify the changes.

## **Final Project Record**

Show your final project plan in the form of a Gantt chart and a brief description, showing actual dates.

# **Chapter 4 feasibility study**

Terms, a feasibility study involves taking a judgment call on whether a project is doable

Introductory Paragraph

## **Time feasibility**

Time Feasibility is the most important for project success. A project will fail if not completed on time.

## **Cost feasibility.**

Helps organizations assess the viability, cost, and benefits associated with projects before financial resources are allocated

## **Scope feasibility**

Scope of Feasibility Studies are in depth technical evaluations of your **objectives**

## **Technical feasibility.**

There will be high possibilities of implementing the propose system

## **Economic feasibility**

Analysis of a project's costs and revenues in an effort to determine whether or not it is logical and possible to complete

# **Chapter 5 design**

Introductory paragraph

## **Introduction your choice of proposed network system**

## **Hardware and software requirements**

## **Evaluating of solutions**

Solution evaluation in project analysis is the assessment of existing, or potential solutions. Discuss how well your solution solves the problem.

# **Chapter 6 implementation**

Introductory paragraph

Implementation is the carrying out, a method, or any design, idea, model, specification, and standard or for doing project. (E.g. firewall configurations, any configurations). Then if you want to include screenshot for the document. You can include screenshots.

# **Chapter 7 testing and verification**

You must include test plan and test cases for this task.

# Chapter 8 EVALUATION and CONCLUSION

You must include critically EVALUATION and CONCLUSION from your project. (Summaries the project and your solution in one or two paragraphs.

# References

Include a list of references cited in the report here. Either use the [numbered] or [name’date] convention

# Appendices

Interim Progress Reports

Company letter.

Progress approval form and Project commencement meeting sheet.