Project Report

On

Hotel Management System

Using VB.Net and MySQL

University	**:**	**Pokhara University**
College	**:**	**Citizen College**
Level	**:**	**Bachelor**
Faculty	**:**	**Science & Technology**
Program	**:**	**Bachelor of computer application (BCA)**
Subject code	**:**	**PRJ 141.2 Project (0-0-2)**
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RECOMMENDATION

This is to certify that the Project I Report

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And

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Entitled:

Hotel Management System using VB.Net and MySQL

Has been prepared as partial fulfillment of the requirement for the Bachelor's degree approved by Citizen College, Faculty of Science and Technology Citizen College. This project is forwarded for examination to Pokhara University.

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Pokhara University

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APPROVAL SHEET

The project I report entitled " Hotel Management System using VB.Net and MySQL"

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Degree of **Bachelor of Computer Application (BCA)**

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DECLARATION

We hereby declare that the project reported in this project entitled " Hotel Management System using VB.Net and MySQL " submitted to Citizen College, Pokhara University is done in the form of partial requirement for the degree of **Bachelor of Computer Application (BCA)** under the supervision of Er. Nishan Khanal, Coordinator, Head of BCA Faculty of Citizen College.

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ACKNOWLEDGEMENT

Frist of all, we would like to thank our all Gods for the grace in accomplishing our project I within the time.

We would like to express our heartfelt thanks to the principal Mr. Hari Krishna Aryal and Coordinator Er. Nishan Khanal of Citizen College for allowing us to undergo this project. We are greatly indebted to Er. Bikash T. Magar and Ms. Muna Bhusal for their kind support, guidance, constructive, supervision, instruction, providing us with valuable guidance and support.

Moreover, the project team is thankful to Hotel SSS for availing us with the valuable resources which were the most for undertaking our project work.

Last, but not the least we are thankful to our friends, family and others for their direct and indirect help, co-operation and encouragement.

Project Team

EXECUTIVE ABSTRACTS

As a partial fulfillment of Bachelors degree of BCA, the university has assigned every student of BCA to conduct a project regard programming languages in every even semester. So far as to conduct a project we have selected a hotel management system.

The major objective of this study is it is partial fulfillment of the requirement for the degree of Bachelor of Computer Application (BCA) as prescribed by Pokhara University. The general objective of the study is to access the theoretical knowledge in practical one. But the specific objective is to assess the position of the company in terms of profitability and identify the strength, weakness, opportunities, and threats of the proposed organization regarding the use of computers and the software.

It is one of the imagined Hotel and has strong goodwill in the market. Its main focus is to serve the customers delicious, hygienic dishes with the good room service. It doesn't have its branches but it is planning to enroll computerized system in hotel.

In our project we have introduced the imagined Hotel, Hotel SSS and the first phase imagined the general background about the hotel. In second phase we discussed about the possibilities that can be done or which are possible to bring on our team and discussed with the supervisor. In the third phase the project is done. In the fourth phase, presentation and analysis, issues and their findings are also included. Finally, In the fifth phase we have done the conclusion and recommendations are included.

Contents

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Chapter 1. Introduction and Background

1.1 Introduction of Project

The aim of every business is to achieve operational excellence and efficiency. The effectiveness of business processes today has been influenced by technology. However, as computing technology becomes increasingly vital to conducting business and communicating with associates, new and more complex issues must be resolved. Among them is the need to ensure that the benefits derived from using computers are not reduced due to accompanying information management inefficiencies or to the creation of new business risks.

A hotel is a building where travelers can pay for lodging, meals and other activities. Hotel Management involves combination of various skills like management, marketing, human resource development, and financial management, inter personal skills, dexterity, etc. Hotels are a major employment generator in tourism industry. Hotel management can be a very lucrative field, both in terms of annual revenues Furthermore, hotels are big attractions to businesses and associations looking to hold events. Booking an event means additional revenue for the use of a conference or banquet room, in addition to overnight guests who may use laundry and other concierge services. Work in the area of Hotel Management involves ensuring that all operations, including accommodation, food and drink and other hotel services run smoothly. Hotel management system goes a long way to assist hotels in achieving its aims.

Hotel management system as an automated system will enable hotels provide all round services to their various customers or stakeholders through digital or electronic means. The system will assist management in its day-to-day business activities, make decisions.

Hotel Management System is a software system where the management of entire hotel is computerized. The hotel management system is designed using VB.Net as the rich GUI for frontend and MySQL Server as the secured backend database.

In this Project the details are maintained like customer details, reservation details, booking details, food details, bill details and some others. The reservation process of reserving rooms for the customers, ordering the foods, billing process, etc. all are computerized and the management is done without any difficulty.

The reports can be viewed completely and the head of the management daily or weekly or monthly can review it. For company auditing it will be more useful. This system will be interactive, faster and user-friendly for the end users. Using the hotel management system, we can perform following activities:

- Food Management,
- Room Management,
- Guest Management,
- Booking,
- Reservation,
- Food Orders,
- Report Generating,
- Staff Management,
- Accountability,
- Room Services,
- Check In/ Out,

- Staff Attendance,
- Sales Management, etc.

1.2 Mission of the Project

The mission is to facilitate easy management and administration of a hotel with capabilities to do Bookings and Reservations of the rooms, Cancellation of the rooms, Cash billing, Room services, Restaurant services, Restaurant billing, etc. using the automated hotel management software. One can keep details records or info on an unlimited number of customers. The system lets the users know which all rooms are available for occupancy at any point of time. This makes the booking considerably faster. And thus helps the hotel in better management and reduce a lot of paper work as well as manpower.

1.3 Existing System

Hotel management involves maintaining various operations of the hotel like booking or reservation of the room, cash billing, cancellation of the rooms, room services, restaurant billing, total billing, travel arrangement etc. The existing system is a manual one and there is lot of issues like erroneous data, slow process, lack of security etc. Finding out the final payment amount completely relies on the hotel manager and if s/he is absent, it takes a long time to find out the details during check out and is prone to errors.

1.4 Drawbacks of The Existing System

- Manual entry consumes more time,
- It is difficult to maintain bulk of record in manual,
- Restrictions in the users,
- Not easy to prepare the daily reports,
- Lack of accuracy and error prone,
- Overall efficiency is less,
- Lot of paperwork,
- Non-secure,
- No perfect maintenance of report,
- No method to trace details,
- Human errors and paper based,
- The manual system is too slow,
- Searching is more time consuming,
  Etc.

1.5 Advantages of Developed System

The following are the objective and highlights of the developed system

- Secure data,
- Faster process,
- Error free,
- Better management,
- Save a lot of a manpower,
- Can easily make the daily reports,
- Elimination of paper works,
- High reliability and security,
- Fast and economical,
  Etc.

1.6 Modules

- Admin and User login mode,
- Food management
    - Add food items,
    - Edit food items,
    - Delete food item,
- Room management
    - Add room
    - Edit room
    - Delete room
- Guest management
    - Edit guest details
- Booking
- Reservation
- Checkout
- Reports

  Etc.

Chapter 2. Literature Review

In the literature review we consider and examine the work done by other scholars and researchers who have broached on this particular topic (Hotel management system).

Technology has made a considerable impact on the Hospitality industry in recent years and will continue to do so with the increasing use of computer, controlled equipment and the growth of information technology in general" (Jones and Lockwood, 1989, p.6) Really in the last two decades, technology has become far more advanced and far more widely used throughout all types of industry. The tourism and hospitality industry is no exception. Indeed, many tourism and leisure establishments rely on technological systems for the vast majority of their operations.

They use a range of computer programs from everything to bookings, communications, security and payments. If a hospitality establishment does not use some sort of advanced technological system in its operations, it is deemed to be out of date and disorganized. Indeed, James Bardi begins to outline the importance of these programs by claiming that "a well-organized reservation system allows hotels to ensure a steady flow of guests into their properties". Furthermore, "Profitable business ventures rely on effective marketing, which includes reviewing people who require hotel products and services, determining their specific needs, developing products and services that meet those needs, and making a profit on the sale of those products and services" (Bardi, 2010).

Part of the reason why hotels utilize technological systems in their operations is because it keeps them up to date in terms of where they are placed in the market. It makes work easier for staff members, allowing them to work more efficiently and taking away time consuming activities which can be carried out by the technology. In some hotels, the utilization of technological systems mean that fewer staff members are needed and this saves considerable costs. For others, especially luxury hotels, this is not the case but it means that the staff can be free to attend to customers on a more personal basis, thus upholding high standards. Therefore, it is understandable that 5-star hotels must ensure that they employ the most advanced technology available. This is because their priority is maintaining their position and status as a luxury brand, rather than cutting costs, which would be more of a priority for budget hotels which cater to a lower end market. Therefore, luxury tourist establishments rely on top quality technological systems. Jones and Lockwood (1989) noted "Companies have also been able to produce higher quality products because technology has developed that assists them to do so". For example, many 5-star hotels employ revenue managements systems which aim to ensure the maximizing of profits for perishable products. It entails that they must take into consideration the timing of the sale, to whom they are selling the product and what sort of product they are selling. Pizam illustrates its use by claiming that revenue management in hotel management is the "business practice of selling the right inventory to the right customer at the right price at the right time so as to maximize revenue, profit and market share" (Pizam, 2005, p. 551). With this in mind, hotels and hotel managers implement revenue management systems which are able to monitor how many rooms are being reserved and react to this information. If, for example, there is a short amount of time before the date approaches in which a number of rooms are not sold, managers can decide to offer discounts to entice people to fill these rooms (Phillips, 2005). A room which is unsold is more financially damaging to a business than a room which is sold for a reduced price, due to the perishable nature of the product. The predominant negative factor of RM systems is that they are extremely expensive and can therefore be costly for hotels to maintain. Indeed, Phillips explains that companies with "expensive and sophisticated revenue management systems are going bankrupt". This is why five-star hotels are often able to employ them while hotels which are lower down the market are not. (Phillips, 2005, p. 142).

It is clear that technology used in hospitality establishments it is also used to make customers' lives

more convenient. Peacock notes “automated hospitality enterprises will become an increasing feature of the industry, particularly at the budget end of the market, but the main use of information technology will be in enhancing customer service, rather than replacing it”. For example, many hotels use technological booking systems which make it easy for clients to book online and to have all the information they need about the rooms available to them. They also use technology within the hotel to benefit the customer during their stay. For example, many have advanced communications systems installed in the rooms which means that those on business trips can continues with their work while they are guests at the hotel. Once again, in 5-star hotels, it is all the more important to provide these facilities; customers pay a lot of money and so expect to have a certain number of facilities and quality additions provided for them (Peacock, 1995, p.21).

Chapter 3. Methodology

This section involves data gathering. Area of study, the data quality controls provided for the study. It also illustrates how the data was analyzed and presented.

3.1 Information Gathering

Information gathering and record keeping in the hotel system is a crucial aspect that is carried out in an organized way so that.

- No system details are left out.
- Right problems are identified
- Repetitive work is avoided
- Wrong or incomplete details are not collected.

To do this, a proper search algorithm must be incorporated; the method involves using specific search criterion to select information from sources. The overall methods which are used while gathering information are:

1. Interviewing
2. Record Inspection
3. Observation

These methods are used in system analysis and design stage.

1. Interviewing:

Interview allows the analyst to collect or gather the information from the individual or group who are generally the current user of the existing system or potential user of the proposed system. This is a basic source of qualitative and helpful information. It also allows the analyst or developer to discover areas of misunderstanding and problems. User interviews are conducted to determine the qualitative information. These interviews which were instructed interviews, provided opportunity to gather information from the respondents who are involved in the process for a long time.
These interviews provided information such as:

- Activities involved in process allocating room to customers
- Activities involved in the process of verification of rooms
- Preparing all the various reports
- Limitation of the existing system
- Problems faced by the user in the existing system.

2. Record review:

It is said to better to believe in records than in people. Thus, a good analyst always gets facts from documents. An existing system can be better understood by examining existing documents, forums and files. Records may include:

- Written policy manuals
- Rules and regulations
- Standard operating procedures used in Hotel Management System
- Forms and Documents

To gather details about hotel management System, many kinds of records and reports will be reviewed including: Standard operating procedure, Reports generated by the existing system, Document flow (input/output) of Hotel Management, Process of allocating of rooms to customers.

3. Observation:

Observation can bring in missed facts, new ways to improve the existing procedures, duplicate work done inadvertently. It can also bring in what other fact-finding methods cannot. But his task is delicate because some people do not like to be observed when they work. Observation gives analysts the opportunity to go behind the scenes in a hotel to learn how things work. Observation should look for:

- Operational inefficiencies
- Alternative routes and procedures
- Interruptions in normal flow of work
- Usages of files and documents
- Informal communication channels.

3.2 Method of System Development Lifecycle

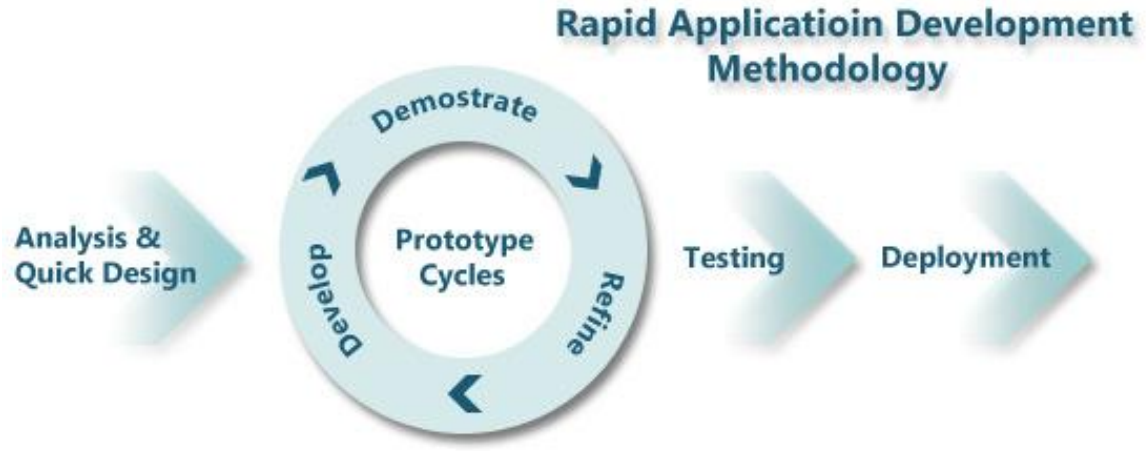


Figure 1: Rapid Application Development Methodology

This methodology focuses on developing products faster with higher quality. RAD approach to software development puts less emphasis on planning tasks and more emphasis on development. In contrast to the Waterfall model, which emphasizes rigorous specification and planning, RAD approach emphasizes the necessity of adjusting requirements in reaction to knowledge gained as the project progresses. This causes RAD to use prototypes in addition to or even sometimes in place of design specifications. RAD approaches also emphasize a flexible process that can adapt as the project

evolves rather than rigorously defining specifications and plans correctly from the start.

Rad methodology is a software design methodology that's designed to counter the rigidity of other traditional software development models–where you can't make changes easily after the initial development is complete.

RAD methodology is designed to be flexible to changes and to accept new inputs, like features and functions, at every step of the development process.

The term Rapid Application Development (RAD) was first coined by James Martin in his book, aptly named Rapid Application Development.

James Martin first developed the development approach in the 1980s when he was working with IBM. In 1991, he formally introduced it as a concept, which was built on the work of people like Barry Boehm.

However, there has been some recent confusion over how rapid application development methodology differs from Agile development methodologies.

Chapter 4 Tools

4.1 Microsoft Visual Studio

Microsoft visual studio is an integrated development environment (IDE) from Microsoft. It can be used to develop console and graphical user interface applications along with Windows Forms applications, web sites, web applications, and web services in both native codes together with managed code for all platforms supported by Microsoft Windows, Windows Mobile, Windows CE, NET framework, NET compact Framework and Microsoft Silverlight.

Visual studio includes a code editor supporting IntelliSense as well as code refactoring. The integrated debugger works both as source-level debugger and machine level debugger. Other built-in tools include a forms designer for building GUI applications, web designer, class designer, and database schema designer. It accepts plug-ins that enhance the functionality at almost every level-including adding support for source-control systems and adding new toolsets like editors and visual designers for domain-specific languages or tool sets for other aspects of software development life cycle.

Visual Studio supports different programming languages by means of language services, which allow the code editor and debugger to support (to varying degrees) nearly any programming language, provided a language specific service exists. Built in languages include; C/C++ (via visual C++). VB.NET (via Visual Basic. NET), C# (via Visual C#), and F# (as of visual Studio 2022). Support for other languages such as M, Python, and Ruby among others is available via language services installed separately. It also supports XML/XSLT, HTML/XHTML, JavaScript and CSS individual language-specific versions of Visual Studio.

4.2 .Net Framework Platform Studio

Microsoft visual studio programs run on the .NET framework, an integral component of Windows that includes a virtual execution system called the common language runtime (CLR) and a unified set of class libraries. The CLR is Microsoft's commercial implementation of the common language infrastructure (CLI), an international standard that is the basis for creating execution and development environments in which languages and libraries work together seamlessly.

Source code written with Visual Basic is compiled into an intermediate language (IL) that conforms to the CLI specification. The IL code, along with resources such as bitmaps and strings, is stored on disk in an executable file called an assembly, typically with an extension of .exe or .dll. An assembly contains a manifest that provides information on the assembly types, version, and culture and security requirements. (MSDN, 2005)

When the program is executed, the assembly is loaded into the CLR, which might take various actions based on the information in the manifest. Then, if the security requirements are met, the CLR performs lust in time (JIT) compilation to convert the IL into native machine instructions. The CLR also provides other services related to automatic garbage collection, exception handling, and resource management. Code that is executed by the CLR is sometimes referred to as the managed code in contrast to unmanaged code which is compiled into native machine language that targets a specific system.

4.3 Microsoft Sql Server 2008

The Microsoft SQL server 2008 Database engine is the core service for storing, processing and securing data. The database engine provides controlled access and rapid transaction processing to meet the requirements for the most demanding data consuming applications within your enterprise. The Database Engine also provides rich support for sustaining high availability (MSDN, 2005).

4.4 Database Engine

XAMPP is an abbreviation where X stands for Cross-Platform, A stands for Apache, M stands for MYSQL, and the Ps stand for PHP and Perl, respectively. It is an open-source package of web solutions that includes Apache distribution for many servers and command-line executables along with modules such as Apache server, MariaDB, PHP, and Perl.

XAMPP helps a local host or server to test its website and clients via computers and laptops before releasing it to the main server. It is a platform that furnishes a suitable environment to test and verify the working of projects based on Apache, Perl, MySQL database, and PHP through the system of the host itself. Among these technologies, Perl is a programming language used for web development, PHP is a backend scripting language, and MariaDB is the most vividly used database developed by MySQL. The detailed description of these components is given below.

4.4.1 Components of XAMPP

As defined earlier, XAMPP is used to symbolize the classification of solutions for different technologies. It provides a base for testing of projects based on different technologies through a personal server. XAMPP is an abbreviated form of each alphabet representing each of its major components. This collection of software contains a web server named Apache, a database management system named MariaDB and scripting/ programming languages such as PHP and Perl. X denotes Cross-platform, which means that it can work on different platforms such as Windows, Linux, and macOS.

Chapter 5. System Analysis and Design

5.1 Introduction

In this chapter we are taking a look at the management system, the processes, and the steps taken to create the system. This approach will be used in order to overcome the challenges highlighted in the previous chapter.

The system is created as a form-based application to replace the current manual system of transaction. This Automated system requires full control on all hotel operations or activities. It is essential due to the fact that the electronic means is more efficient in utility than the manual system.

The Project work will ensure reservation of hotel rooms, staff management, and resource management. A “Use Case” scenario is the room search for room reservation. Users may face difficulties searching between available and booked rooms, but the automated system would search more efficiently with the proficient search algorithm. All details of the rooms are stored in the database servers and can be retrieved or modified with very little stress. Another “Use Case” is the accounts receivable and payable field of the F&A module. The accounts receivable simply captures all funds coming-in with their sources and dates while the accounts payable displays the money going-out of the organization with their destination. The business flow is quite simple; however, to accomplish all these tasks is burdensome for both the customer side and the hotel side without an efficient and integrated hotel management system.

With the HMS (Hotel Management System), Restrictions and access levels can be stipulated to prevent unauthorized or unwanted personnel from any point of operation i.e., workers cannot have access to areas not pertaining to their roles as set by the administrator. The administrator can also decide what operations can be carried out where on the application.

5.2 Requirement Analysis

In Order for the goals of the automated system to be achieved the design of the HMS takes the following into consideration:

- The system must make the hotel services fully known to the customer such as the room details and pricing.
- The system must be able to search databases or records to provide quick result for user's details.
- The system should ensure data consistency and no duplication of data no matter how small.
- The system must be accessed only by authorized persons and should indicate the user at any point in time (User Authentication).
- The design (Graphical) must be comprehendible and not clumsy to the user; easy to use, and easy to understand.
- The system should be able to generate reports and print out information on admin's demand.
- The system must carry out only actions specified by the user (modify, delete, add).

5.3 System Design

This is the process and art of defining the Architecture, components, modules, interface, and data for a system to satisfy specified requirements by the stakeholder or customer. The Project is designed in phases to ensure that all necessary fields are covered in the management of the Hotel system. The design entails room reservation which is a crucial aspect of the system, administrator operations which control the entire system, and user activities and data retrieval.

5.4 Data Flow Diagrams

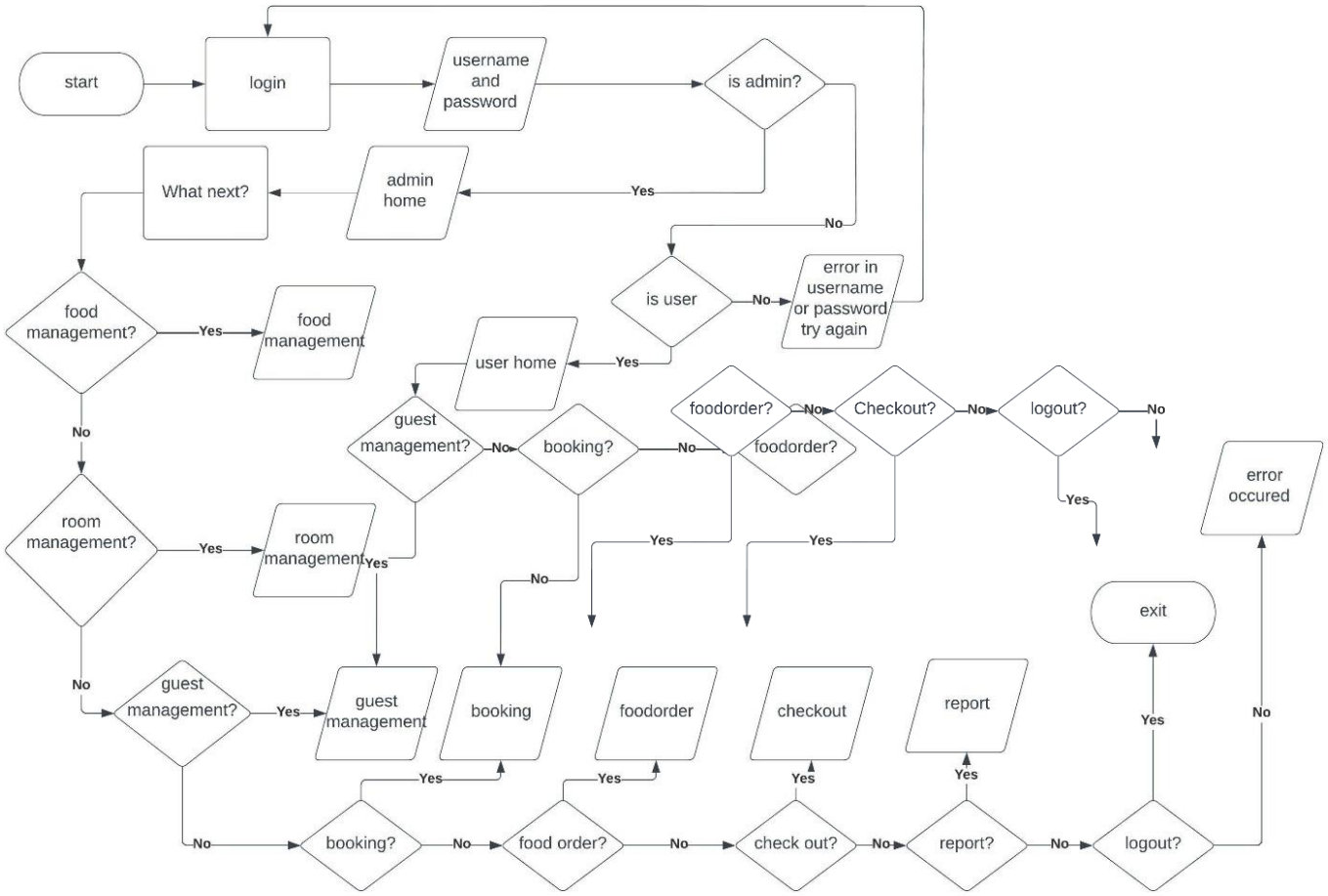


Figure 2: Data Flow Diagram

5.5 Use Case Diagram

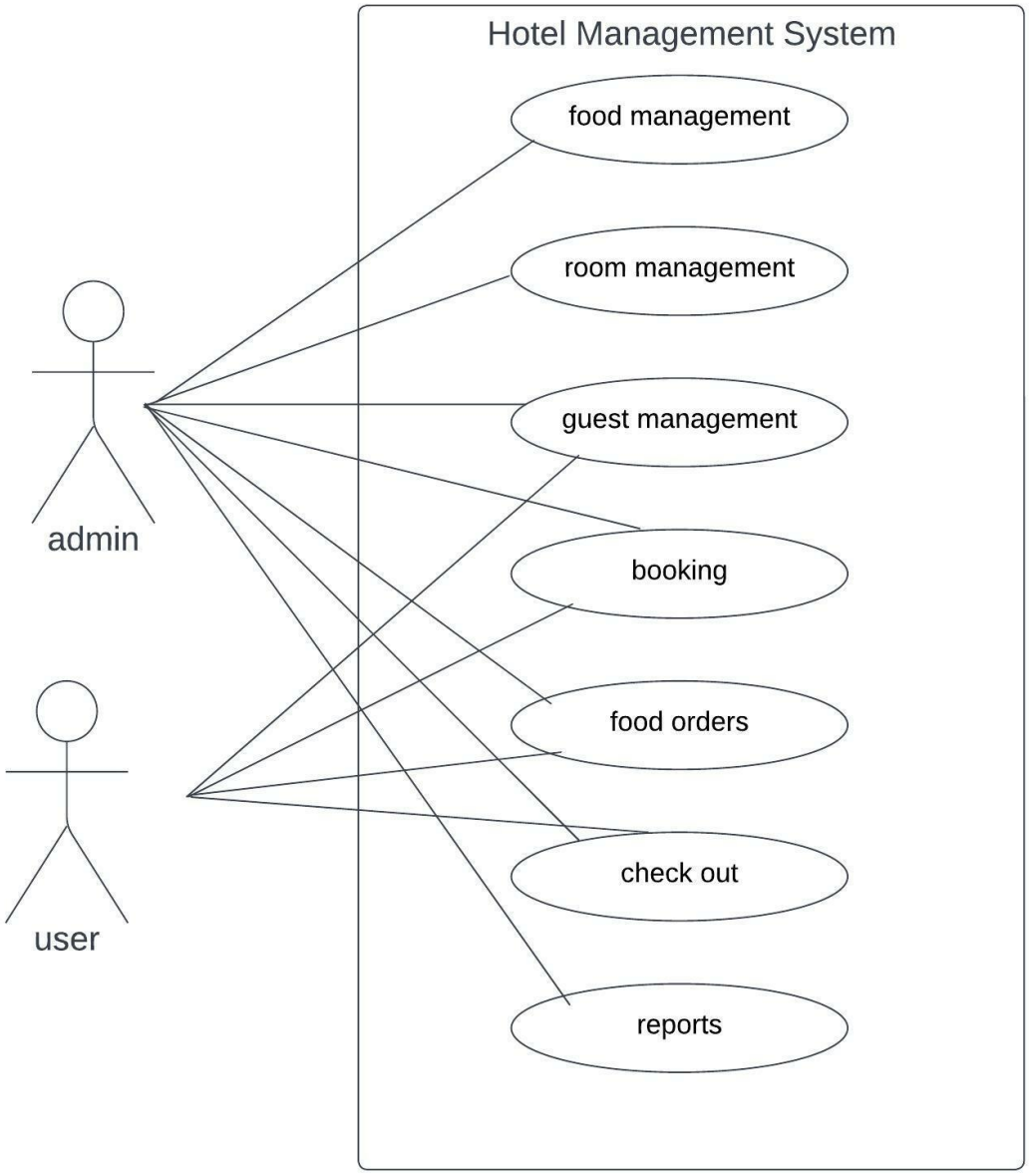


Figure 3: Use Case Diagram

5.6 Domain Model

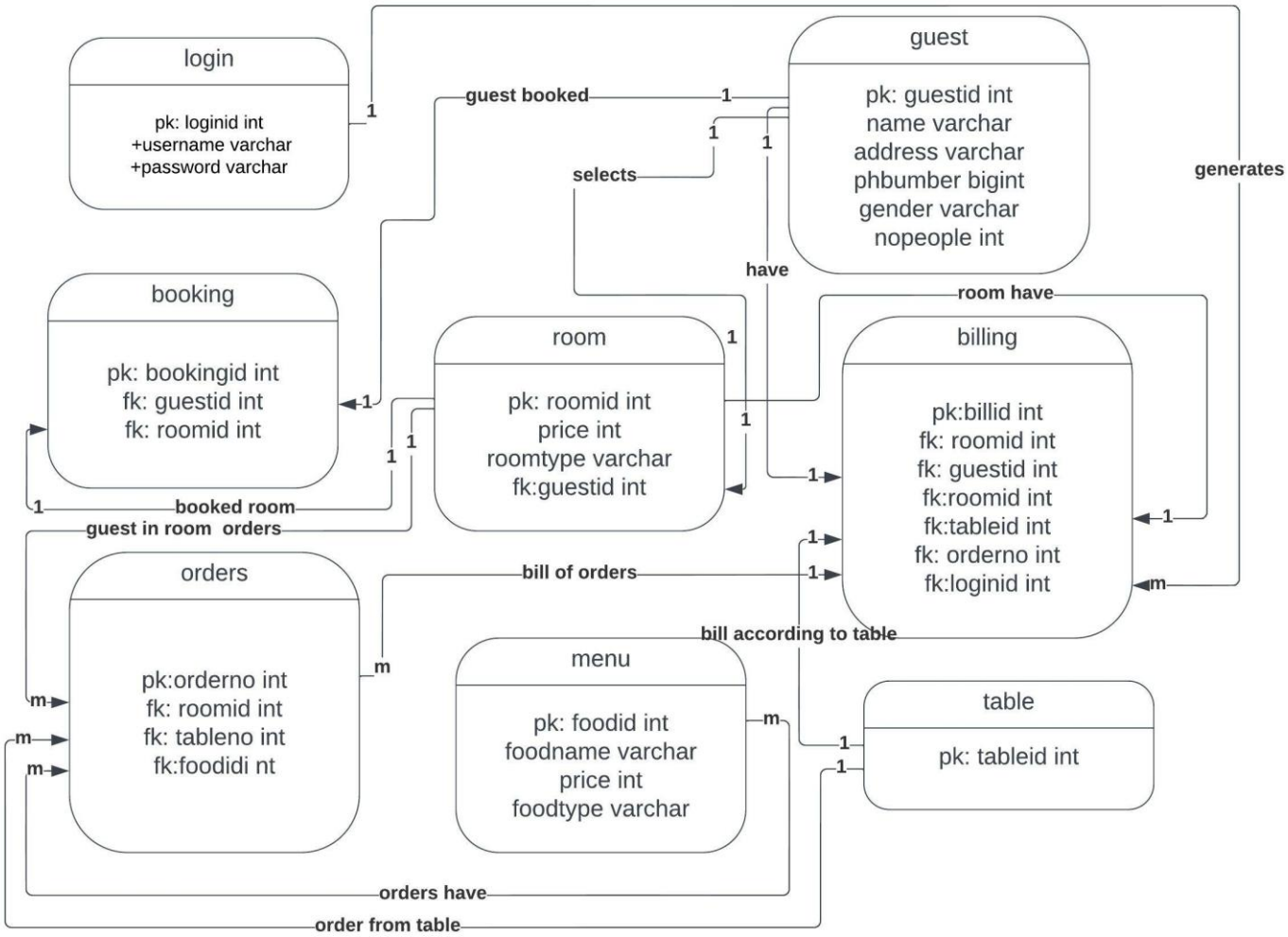


Figure 4: Domain Model

5.7 ER Diagram

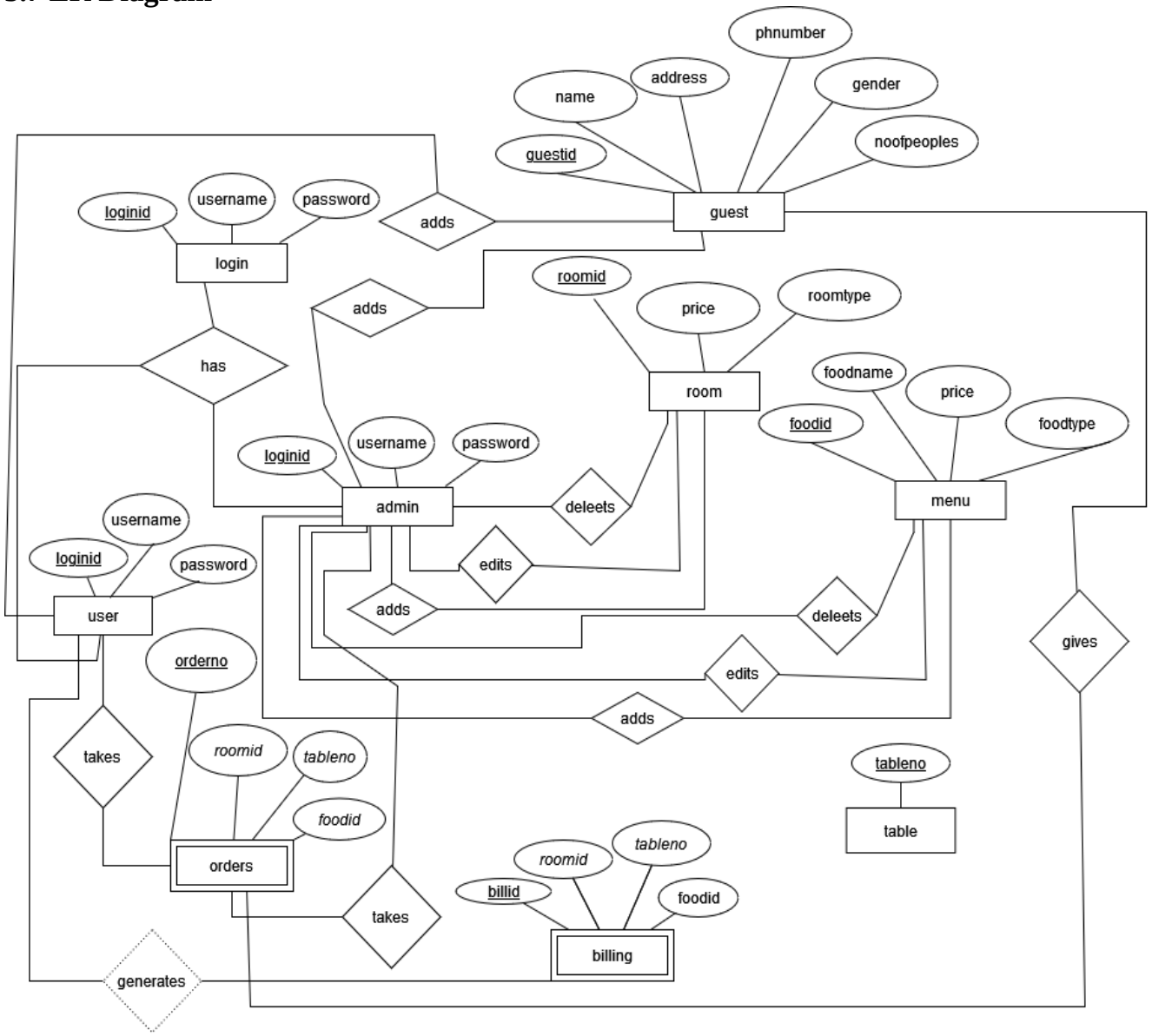


Figure5 : ER Diagram

Chapter 6 System Implementation

6.1 Hardware Requirements

The following are the necessary hardware requirements necessary for the proper implementation of the Hotel Management Information System:

- A 32-bit 2.2GHz processor
- Windows Xp and upwards operating system
- Web Browser (internet explorer recommended)
- 1 GB RAM processor

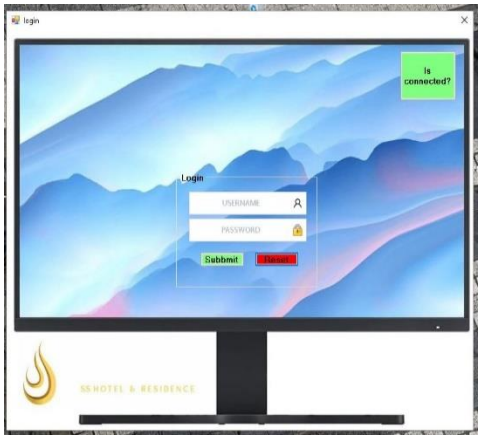
6.2 Implementation

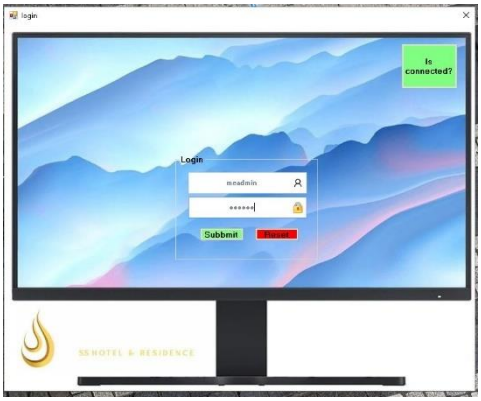
Implementation is the stage in the project where the theoretical design is turned into a working system. It involves careful planning, investigation of the current system and its constraints on implementation, design of methods to achieve the changeover, an evaluation of change over methods. Apart from planning major task of preparing the implementation are education and training of users. The implementation process begins with preparing a plan for the implementation of the system. According to this plan, the activities are to be carried out, discussions made regarding the equipment and resources and the additional equipment has to be acquired to implement the new system. In a network backup system, no additional resources are required. The most critical stage in a achieving a successful new system is giving the users the confidence that the new system will work and be effective. The system can be implemented only after thorough testing is done and is found to be working according to specification. This method also offers the greatest security since the old system can take over if the errors are found or there is an inability to carry out a certain transaction while using the new system.

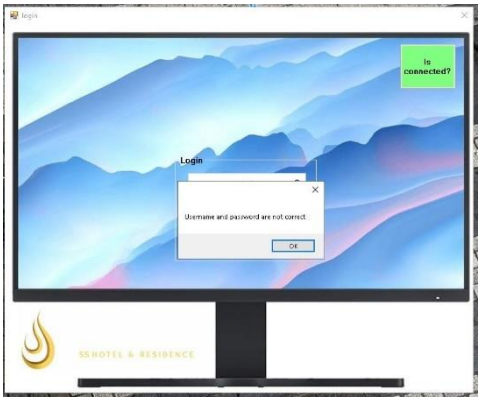
6.3 System Documentation

6.3.1 The "Log in" Page

The log in page for the hotel management system comprises of a dialog box which allows the user to input their Username and password. It also includes a log in button. It was developed using session (login) to check authorization. The input will be validated when user keys in a value for either of the three required values and when all are deemed correct or validated it advances to the menu page of the admin or user else a message stating that the username and/or password will be displayed.

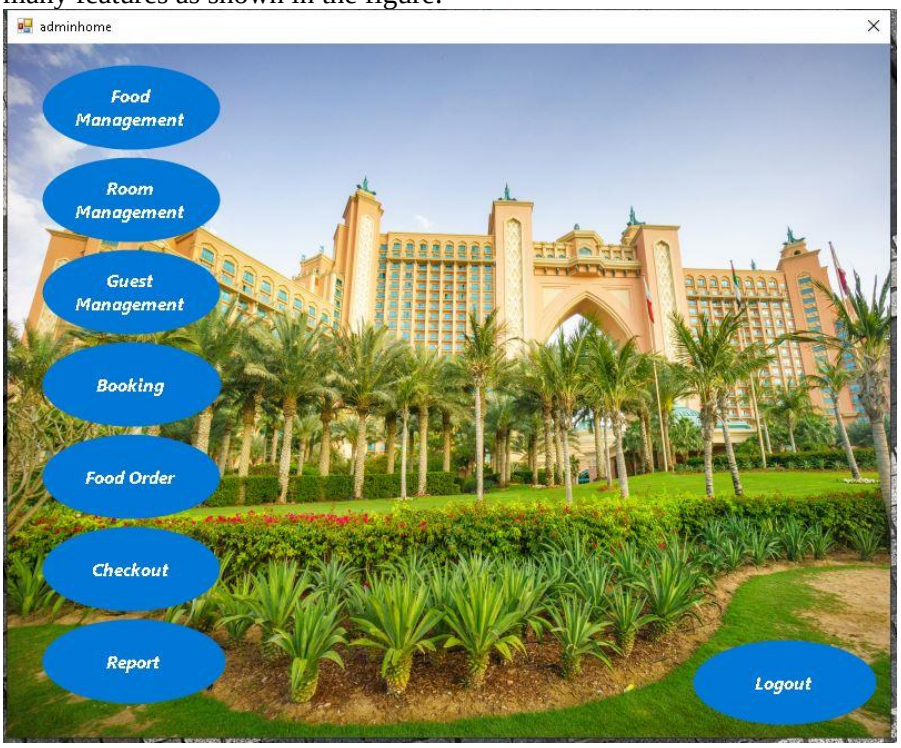






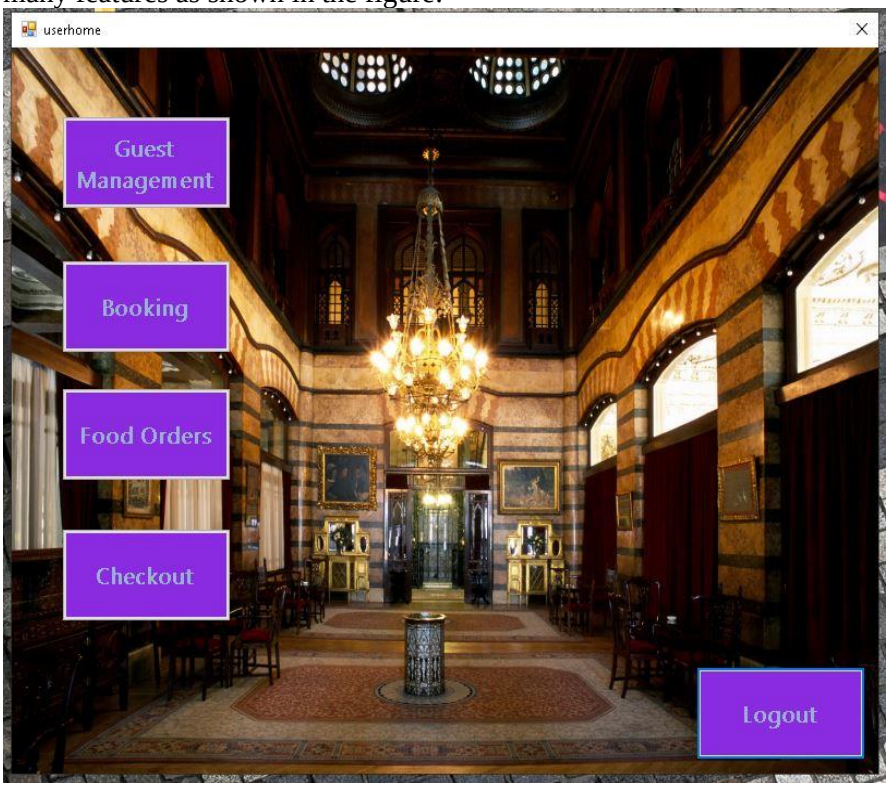
6.3.2 The Home Page (Admin)

The home page of admin for the hotel management system comprises of a screen which includes many features as shown in the figure:



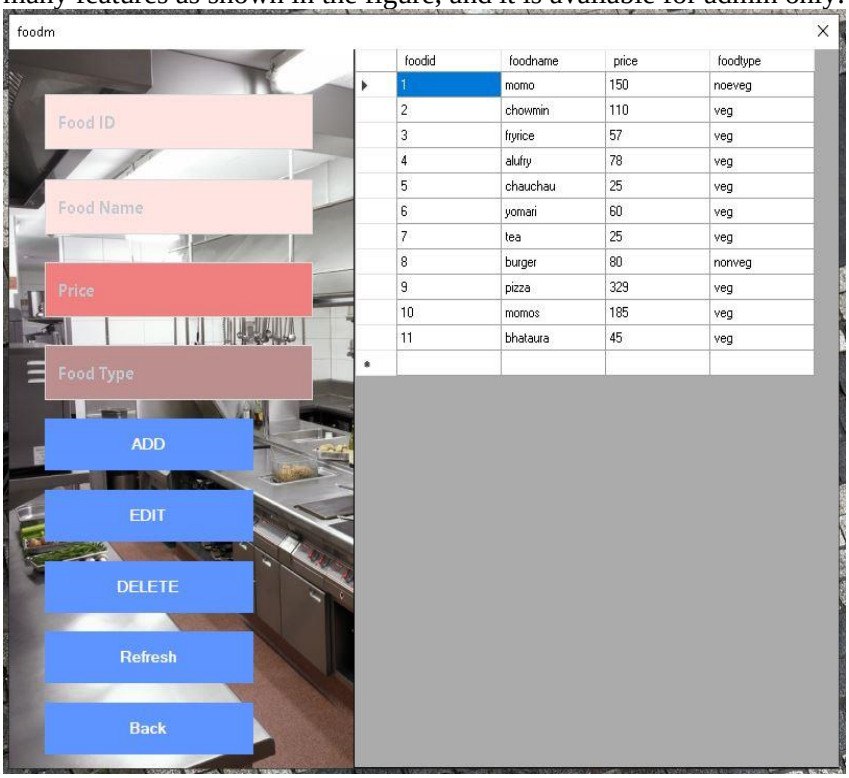
6.3.3 The Home Page (User)

The home page of user for the hotel management system comprises of a screen which includes many features as shown in the figure:



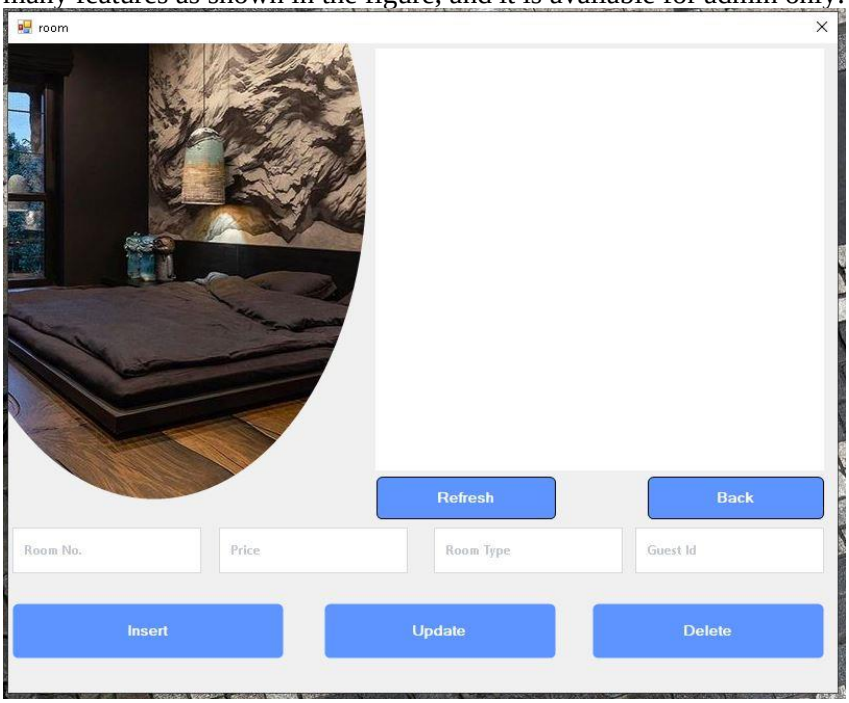
6.3.4 The Food Management

The food management page of the hotel management system comprises of a screen which includes many features as shown in the figure, and it is available for admin only:



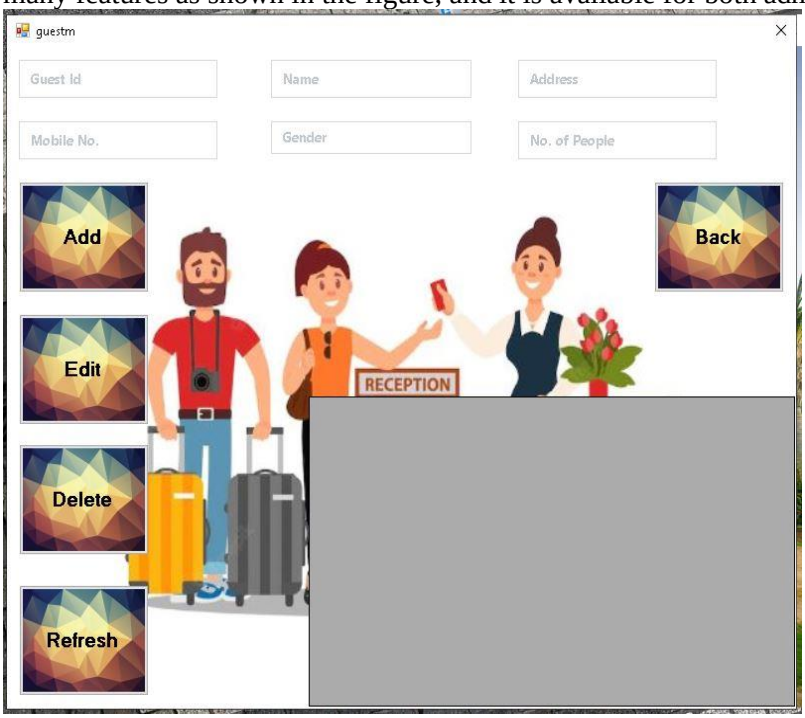
6.3.5 The Room Management

The room management page of the hotel management system comprises of a screen which includes many features as shown in the figure, and it is available for admin only:



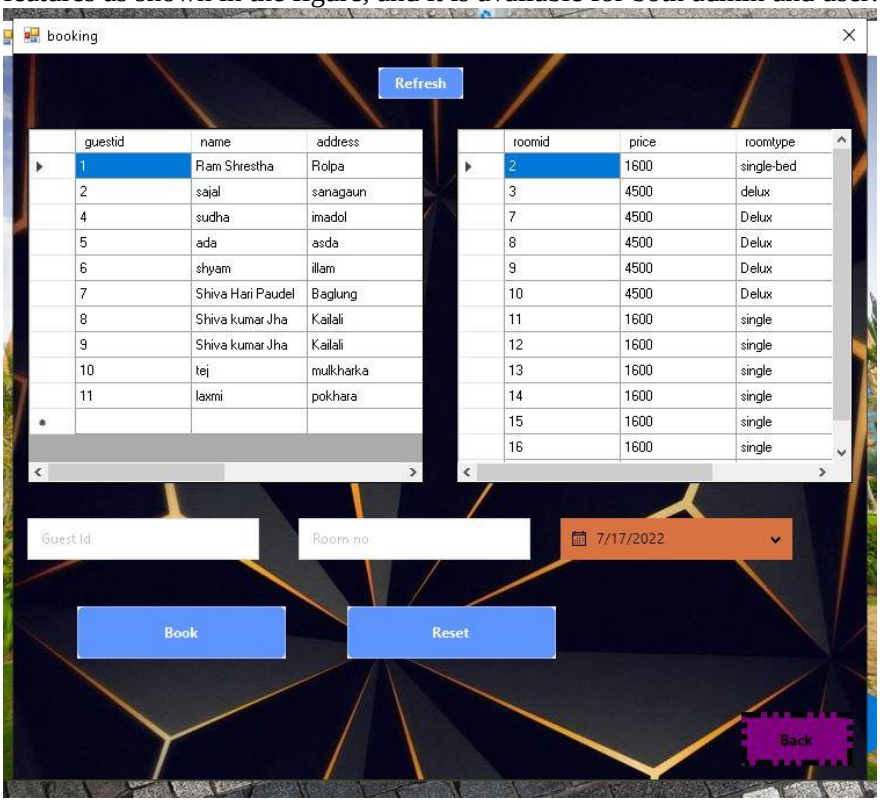
6.3.6 The Guest Management

The guest management page of the hotel management system comprises of a screen which includes many features as shown in the figure, and it is available for both admin and user:



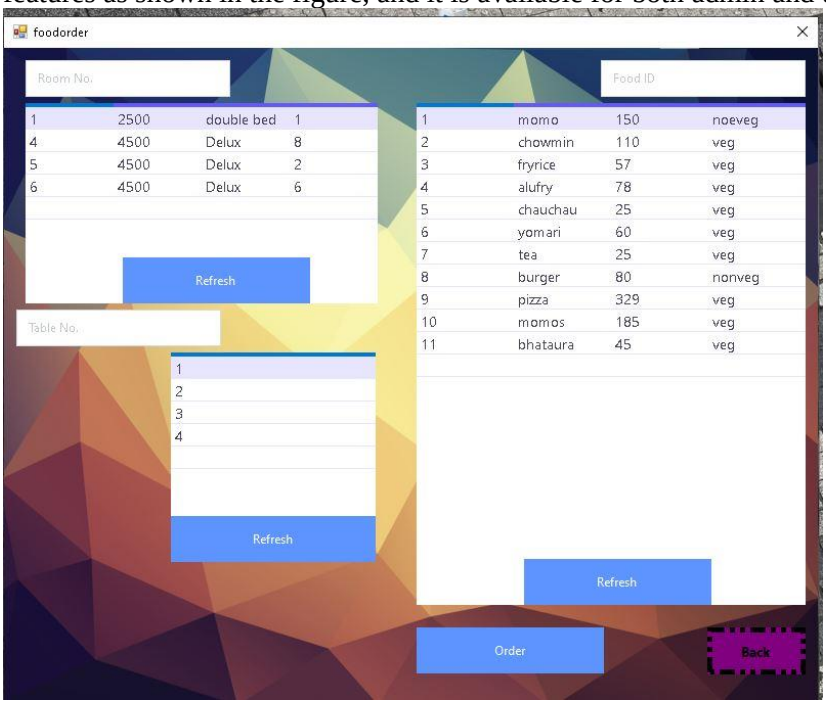
6.3.7 Booking

The booking page of the hotel management system comprises of a screen which includes many features as shown in the figure, and it is available for both admin and user:



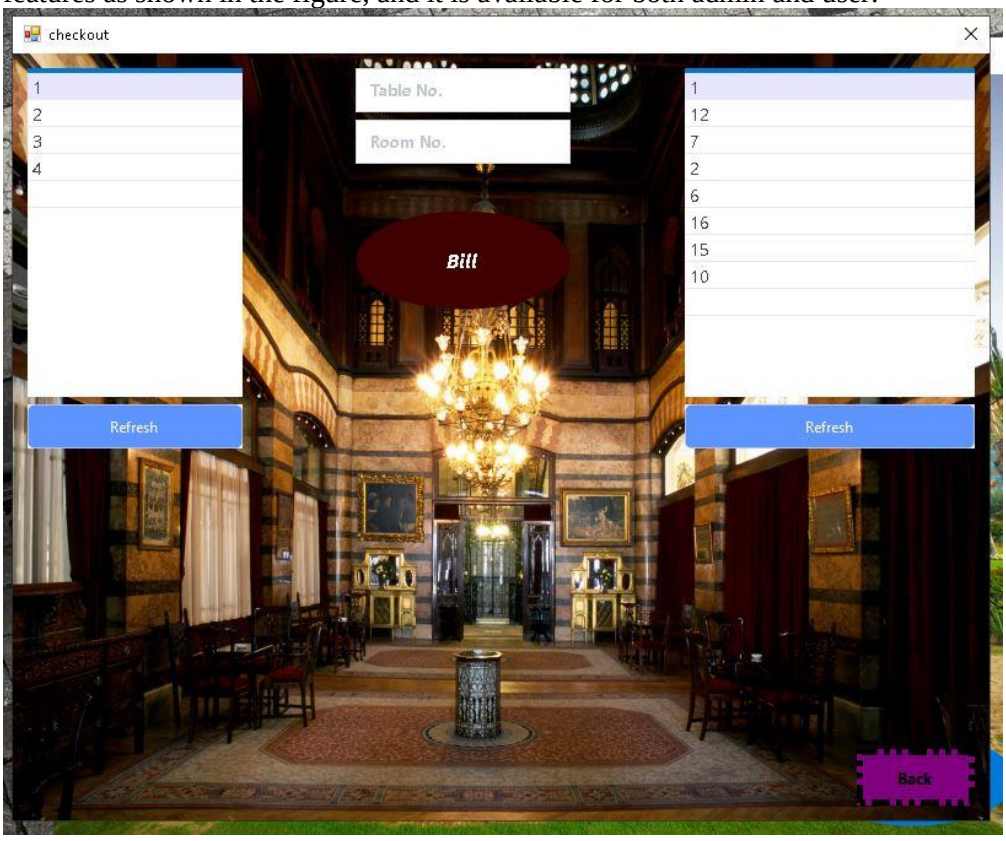
6.3.8 food Order

The food order page of the hotel management system comprises of a screen which includes many features as shown in the figure, and it is available for both admin and user:



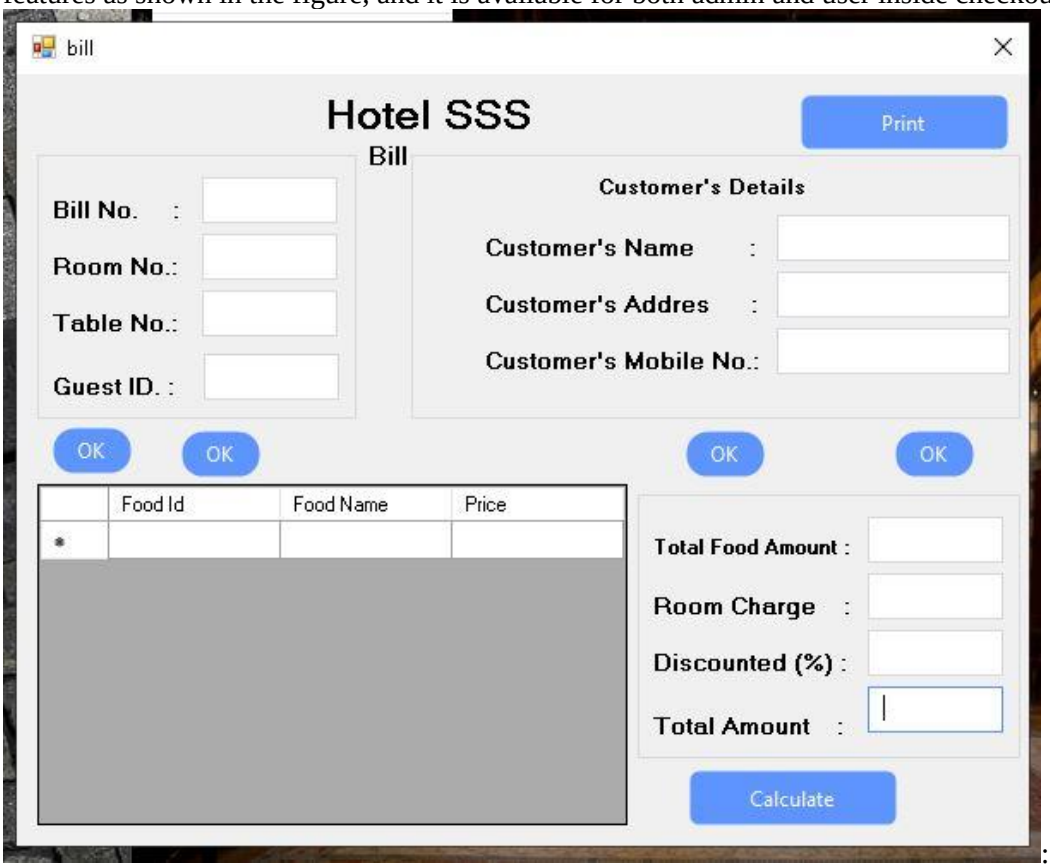
6.3.9 Check Out

The check-out page of the hotel management system comprises of a screen which includes many features as shown in the figure, and it is available for both admin and user:



6.9.10 Bill

The bill page of the hotel management system comprises of a screen form which includes many features as shown in the figure, and it is available for both admin and user inside checkout



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6.4 Application And System Testing

System testing is the stage of implementation which is aimed at ensuring that the system works accurately and efficiently before live operation commences. Testing is the process executing the program with the intent of finding errors and missing operations and also a complete verification to determine whether the objectives are met and the user requirements are satisfied. The ultimate aim is quality assurance. Tests are carried out and the results are compared with the expected document. In case of erroneous results, debugging is done. Using detailed testing strategies, a test plan is carried out on each module. The various tests performed are unit testing, integration testing and user acceptance testing.

6.4.1 Unit Testing

The software units in a system are modules and routines that are assembled and integrated to perform a specific function. Unit testing focuses first on modules, independently of one another, to locate errors. This enables us to detect errors in coding and logic that are contained within each module. This testing includes entering data and ascertaining if the value matches to the type and size supported by .net. the various controls are tested to ensure that each performs its actions as required.

6.4.2 Integration Testing

Data can be lost across any interface, one module can have an adverse effect on another, sub functions when combined, may not produce the desired major functions. Integration testing is a systematic testing to discover errors associated within the interface. The objective is to take unit tested modules and build a program structure. All the modules are combined and tested as a whole. Here the Server module and Client Module options are integrated and tested. This testing provides the assurance that the application is well integrated functional unit with smooth transition of data.

6.5 System Maintenance

Maintenance involves the software industry captive, typing up system resources. It means restoring something to its original condition. Maintenance follows conversion to the extent that changes are necessary to maintain satisfactory operations relative to changes in the user's environment. Maintenance often includes minor enhancements or corrections to problems that surface in the system's operation. Maintenance is also done based on fixing the problems reported, changing the interface with the other software or hardware enhancing the software. Any system developed should be secured and protected against possible hazards. Security measures are provided to prevent unauthorized access to the database at various levels. An uninterrupted power supply should be so that the power failure or voltage fluctuations will not erase the data in the files. Password protections and simple procedures to prevent the unauthorized access are provided to the users. The system allows the user to enter the system only through proper user name and password. After designing and coding the application it only runs in the visual studio environment in order to make the application stand alone and employable to other computer systems it needs to be compiled into an executable format (.exe). Visual studios have an inbuilt program that allows for a one-click solution for this.

6.6 Analysis of Results from The Implementation of The Work

The work was designed based on the methodology stated in the previous chapters and the implementation is based on the requirement for a hotel management system. The project work has four major aspects which include the food management, room management, guest management, orderings, bill generating activities.

Chapter 7 Scheduling and Feasibility Study

7.1 Project Task

The project schedule has been designed as per requirement and constraints involved. This project is schedule to be completed in about 3 months. Requirements analysis has been given more emphasis. Research and database management is to be done first and well document. Debugging and testing is to be done prior to the completion of project.

TASKS	APPROX DURATION (in days)
Requirement Analysis and Specification	12
Undertake Analysis of the System	8
Design System	30
Procedure Requirement Specification	12
Coding	12
Test System Modules	4
Overall System Test	4
Develop Documentation	6

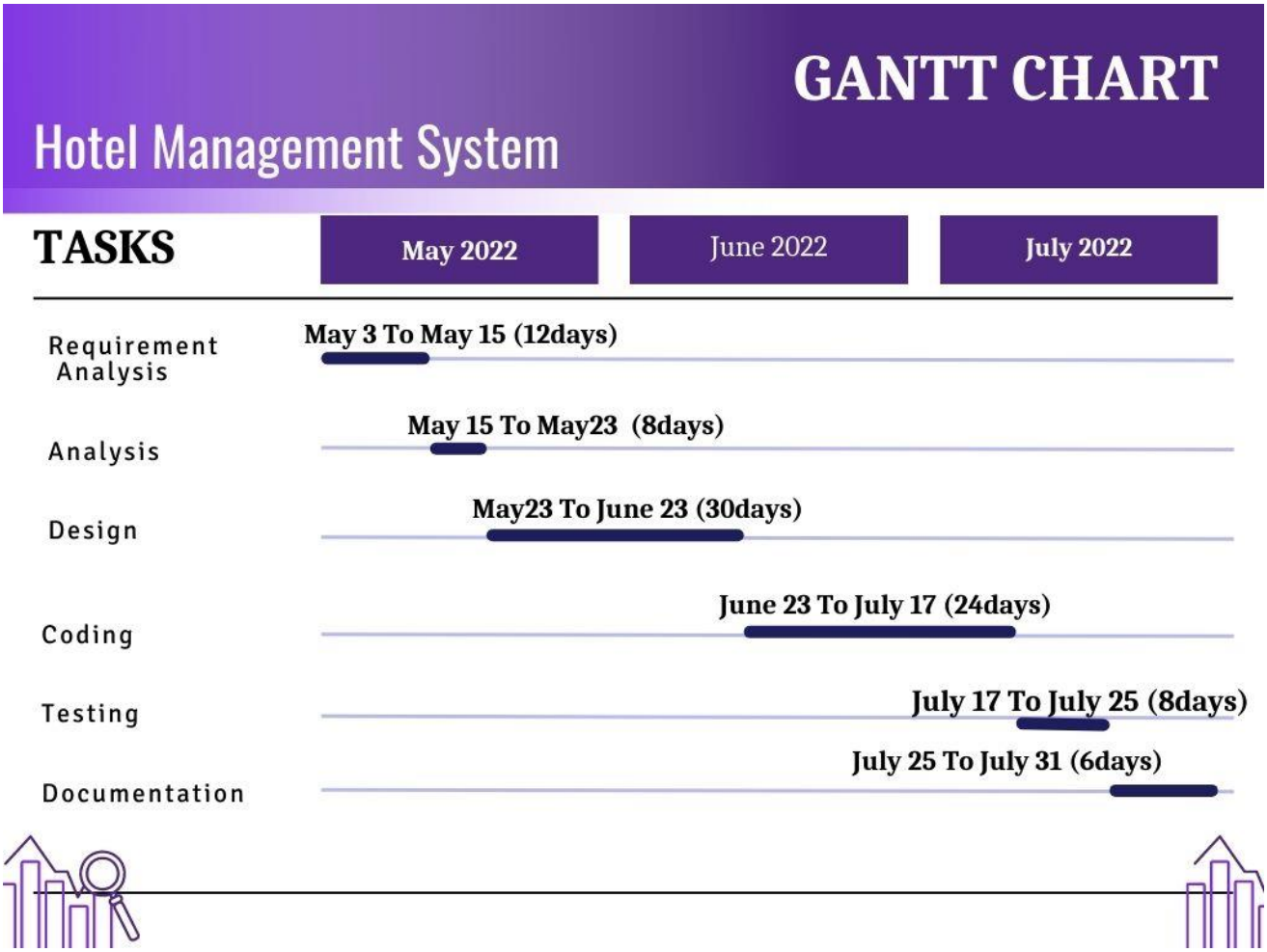
Table: Project task and time schedule

7.2 Team members and Divided Roles

Names	Roles	Responsibilities
Sajal Rokka	• Database Administrator, • End User Documentation, • Project Management.	• Develop maintain and implement policies, procedures necessary to ensure the security and integrity of the database, • Develop the documentation file, • Participate in testing, • Manage risk and issues in ongoing project tasks, • Review and repetitive testing, • Responsibility to keep project on track.
Sudha Shrestha	• UI/UX Designer, • System Developer, • Project Management.	• Develop the user-friendly Interface and work through design revision, • Testing the system Interface, • Define and execute development requirement, • Discuss and determine the good workflow, • Manage risk and issues, • Responsibility to keep project on track.

Table: Team members and Divided Roles

7.3 Gantt Chart:



7.4 Feasible Study

A feasibility studies main goal is to assess the economic viability of the proposed business. The feasibility study needs to answer the question: **"Does the idea make economic sense?"** The study should provide a thorough analysis of the business opportunity, including a look at all the possible roadblocks that may stand in the way of the cooperative's success. The outcome of the feasibility study will indicate whether or not to proceed with the proposed venture. If the results of the feasibility study are positive, then the cooperative can proceed to develop a business plan.

If the results show that the project is not a sound business idea, then the project should not be pursued. Although it is difficult to accept a feasibility study that shows these results, it is much better to find this out sooner rather than later, when more time and money would have been invested and lost.

It is tempting to overlook the need for a feasibility study. Often, the steering committee may face resistance from potential members on the need to do a feasibility study. Many people will feel that they know the proposed venture is a good idea, so why carry out a costly study just to prove what they already know? The feasibility study is important because it forces the FOOD SEFETY to put its ideas on paper and to assess whether or not those ideas are realistic**.** It also forces the FOOD SEFETY to begin formally evaluating which steps to take next. The FOOD SEFETY's organizers will typically hire a consultant to conduct the feasibility study. Because the consultant is independent of the cooperative, he or she is in a better position to provide an objective analysis of the proposed venture. The consultant should have a good understanding of the industry as well as the new generation cooperative model of business. He or she should have previous experience in directly related work. To get an estimate of the costs of a feasibility study, prepare a rough outline of the work needed to be done. Contact several consultants and provide them with a copy of this rough draft to see what sort of estimates they give. When the time comes to hire a consultant, prepare a formal request for proposals that outlines the information that is needed and send this to several consultants. It might be tempting to choose the lowest-cost consultant or a personal acquaintance of one of the FOOD SEFETY's organizers, but always remember that quality work is the most important factor when choosing a consultant. Make sure that the consultant can provide an independent assessment of the business opportunity. For instance, hiring an engineering firm or an equipment manufacturer to conduct market analysis may lead to biased results in favor of proceeding with the venture. Engineering firms and equipment manufacturers may have an incentive to show positive results so they can obtain contracts with the cooperative once it chooses to start up operations. Engineering firms and equipment manufacturers are needed in order to provide information about equipment requirements and costs, but an independent consultant should conduct the overall feasibility study. A feasibility study should examine three main areas: market issues, technical and organizational requirements, financial overview.

7.4.1 Economic Feasibility

Economic feasibility is often referred cost-benefit analysis and department able to pay all the expenses of the project and also used methods for evaluating the effectiveness of the new system. More commonly known as cost/benefit analysis, the procedures are to determine the benefit a savings that are expected from a candidate system and compare them with cost. Economic analysis is the most frequently used method for evaluating the effectiveness of a new system. More commonly known as cost/benefit analysis, the procedure is to determine the benefits and savings that are expected from a candidate system and compare them with costs. If benefits outweigh costs, then the decision is made to design and implement the system. An entrepreneur must accurately weigh the cost versus benefits before taking an action.

Cost-based study: It is important to identify cost and benefit factors, which can be categorized as follows:

1. Development costs

and

2. Operating costs.

This is an analysis of the costs to be incurred in the system and the benefits derivable out of the system.

Time-based study: This is an analysis of the time required to achieve a return on investments. The future value of a project is also a factor.

7.4.2 Political Feasibility

Political the system evaluating the key stakeholders within the organization agreed the proposed system and there is no compliance from them.

7.4.3 Legal and Contractual Feasibility

Both legally and contractually the project is feasible because there are no legal and contractual issues that makes impossible for the development of the project. Determines whether the proposed system conflicts with legal requirements, e.g., a data processing system must comply with the local Data Protection Acts.

7.4.4 Technical Feasibility

Development group must understand of the possible target hardware, software, and operating environment as well as system size and scope.

7.4.5 Operational Feasibility

Operationally, the project is feasible because at least it will increase the performance and will attain the desired the goal also will reduce the current problems as soon as possible. Operational feasibility is a measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development.

7.4.6 Schedule Feasibility

Time the project end will fit the organizational deadlines if it takes long to be completed before it is use full, typically this means estimating how long the system will take to develop, A project will fail if it takes too long to be completed before it is useful. Typically, this means estimating how long the system will take to develop, and if it can be completed in a given time period using some methods like payback period. Schedule feasibility is a measure of how reasonable the project timetable is. Given our technical expertise, are the project deadlines reasonable? Some projects are initiated with specific deadlines. You need to determine whether the deadlines are mandatory or desirable.

Chapter 8 Summary, Conclusion And Recommendations

8.1 Summary

Traditionally hotel management is done using pen and papers. Hotel Management System is required to assist in the management of data and records in the hospitality sector. The system automates the entire process of managing foods, rooms, and billing system. This new system also helps with easy reservation of rooms to the hotel teams by using computerized system.

The study revealed that several software systems exist for Hotel Management, some of which includes “Guest Point”, “FrontdeskAnywhere”, “SKYWARE Hospitality Solution” and much more. A scalable hotel management system can be developed and implemented to suit the environment in which it is to be used.

Furthermore, it can be concluded from the above discussion that a reliable, secure, fast, and efficient system has been developed replacing the manual and less reliable system the Hotel management system can be implemented in hotels for better results regarding the management of customer’s data, other metadata.

8.2 Conclusion

In conclusion we believe this project if properly utilized will save time, reduce the amount of work the administration has to do, and will replace the stationery material with electronic apparatus. The system should also serve as a major tool to improving the efficiency in hotel management. Hence a system with expected results has been developed but there is still room for improvement.

In terms of experience gained through the duration of this project study, the students have been able to have broader knowledge about the management of hotel organization using manual and automated procedures. The students have also been able to improve their knowledge in developing enterprise applications. We believe this project will serve the university efficiently in their efforts to automate the Hotel management process of the imagined hotel “Hotel SSS”.

8.3 Limitations

As earlier mentioned, the project study covers accommodation, finance and account, food ordering, room management and general services transactions in the Hotel management.

However, the project has limitations based on these facts

- The “finance and account” aspect of the hotel management system will not capture the budget function; it only captures the accounts receivables and accounts payable.
- Another limitation of the system is that customer’s signature will not be captured. This process might make procedures cumbersome, which is what the study hopes to eliminate; however, it captures full details of the customer.
- The system does not have an online payment option on the online room reservation menu.
- There are only admin and user
- The system is designed to run off-line.
- Due to time constraints certain fields were not included; the software was therefore reduced to covering critical aspect of hotel management.

These limitations were encountered in the course of the study, and appropriate techniques have been applied to ensure the system functions properly thereby eliminates the “stale mate”

8.4 Recommendations

Various benefits associated with this work and the results of the implemented system make it suitable for any hotel. Therefore, it is recommended for any hotel especially those with a large turnout of customers and where loss of customer's information is common. This will protect the interest of the Hotel owners and enhance good performance of the services provided.

Due to the fact that there will always be an increase in the expectations and demand of customers and Hotel owners and administrators will always demand greater effectiveness and efficiency of any system and prevention of unauthorized access into the system it is recommended that constant research be carried out and regular updates made to increase the reliability of the present system.

The growth of a hotel organization also depends on how well their resources (Human, Assets) are managed, how well they treat their customers (Hospitality) leading to large turn-up, quality of service rendered to customers and efficiency of the system in use. It is therefore recommended to always put these factors into consideration when implementing any policies within the organization.

8.5 Future Enhancements

- Biometric measures such as fingerprint, retinal scan etc. should be included in the system to ensure good security of the system thereby avoiding impersonation and unauthorized access to stored data thereby preventing loss of vital information.
- Implementation of a multi modal hotel management control system in delivery of service to customers.
- Implementation of more modern online facilities that might help prospective customers interact (limitedly) more with the system and the Hotel in general such as PayPal for making online transactions.
- Adequate provision should be made for customers to interact with authorized users of the hotel for reservation using their mobile phones.
- Online Registration, Online booking.
- Payment's modes
- Profit calculation

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