HOSTEL MANAGEMENT SYSTEM PROJECT.

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AN
INTERNSHIP REPORT
ON
HOSTEL MANAGEMENT SYSTEM PROJECT
BY

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Date: 2022/10/05

HOSTEL MANAGEMENT SYSTEM

ABSTRACT

As the name specifies “HOSTEL MANAGEMENT SYSTEM” is a software developed for managing various activities in the hostel. For the past few years the number of educational institutions are increasing rapidly. Thereby the number of hostels are also increasing for the accommodation of the students studying in this institution. And hence there is a lot of strain on the person who are running the hostel and software’s are not usually used in this context. This particular project deals with the problems on managing a hostel and avoids the problems which occur when carried manually.

Identification of the drawbacks of the existing system leads to the designing of omputerized system that will be compatible to the existing system with the system Which is more user friendly and more GUI oriented. We can improve the efficiency of the system, thus overcome the drawbacks of the existing system.

· Less human error

· Strength and strain of manual labour can be reduced

· High security

· Data redundancy can be avoided to some extent

· Data consistency

· Easy to handle

· Easy data updating

· Easy record keeping

· Backup data can be easily generated

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1.1 OVERVIEW OF THE PROJECT

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INTRODUCTION

1. INTRODUCTION

1.1 Overview of the Project

We have got nine hostels in our university, which consist of four boy's hostel and five girl's hostel. All these hostels at present are managed manually by the hostel office. The Registration form verification to the different data processing are done manually.

Thus there are a lot of repetitions which can be easily avoided. And hence there is a lot of strain on the person who are running the hostel and software's are not usually used in this context. This particular project deals with the problems on managing a hostel and avoids the problems which occur when carried manually.

Identification of the drawbacks of the existing system leads to the designing of computerized system that will be compatible to the existing system with the system which is more user friendly and more GUI oriented. We can improve the efficiency of the system, thus overcome the drawbacks of the existing system.

1.1.1 Problem Definition

Registration Form:

This section provides an online form to the students which can be filled by them, and a copy of the filled page can be taken in the printed form. This is later submitted to the Hostel authorities which can be verified by them before aloting them to the respective hostels.

Notice Board:

All the 9 hostels have their Notice boards. Any change in the Hostel fee, mess fee will be shown in this. It can be also used for different notifications.

Administrator Login

The Administrator can :

1. Allot different students to the different hostels.
2. Vacate the students for the hostels.
3. Control the status of the fee payment.
4. Edit the details of the students & modify the student records.

Allotment of the hostels:

Their will be pre-defined criteria for the admission to the hostels. He checks the attested application forms of the students obtained from the internet and verify it with the student database. If the students are found eligible then they are allotted to the hostel.

Vacating the rooms:

As the student's course is over they will vacate their rooms. So it is required for the administrator to remove their records from the database tables. This section includes the option for the room vacation and the deletion of the particular record from the database.

SYSTEM CONFIGURATION

1.2. SYSTEM CONFIGURATION

1.2.1 Hardware Specifications:

PROCESSOR	**:**	**PENTIUM IV**
SPEED	**:**	**2.4 GHZ**
RAM	**:**	**512MB (DDRRAM)**
HARD DISK	**:**	**80 GB**
MONITOR	**:**	**VGA COLOR**
KEYBOARD	**:**	**104 KEYS**
MOUSE	**:**	**OPTICAL**

1.2.2 Software Specifications:

OPERATING SYSTEM	**:**	**WINDOWS XP**
PLATFORM	**:**	**VB.NET 2005**
BACK END	**:**	**MS ACCESS**

1.2.3 Software Selection

Windows XP

Windows XP brings with new features, improved programs, and tools. See what's new; take an entertaining tour; learn about the programs Windows XP contains, including systems, accessories, and communications and entertainment programs. Read articles containing full descriptions for performing key tasks from start to finish. Look up unfamiliar terms in the glossary. Learn the benefits of registering your copy of Windows XP online.

Windows XP provides many ways for you to communicate with friends, co-workers, and with the rest of the world. Learn how to set up and use e-mail, including instant messaging. Explore the World Wide Web safely and in a secure environment. Unlock the powerful advantages of networking - linking computers at home or in a small business. Windows XP explorer and internet explorer and web based resources integrated in a single view:

- Improved Web Features
- Internet Connection Wizard
- Internet Connection Sharing
- Active Desktop

Remote Desktop

Whether you're telecommunicating from home or traveling away from the office, Windows XP helps you work where you are. Learn how to connect to your office from home or another location, and to change your settings depending on where you are and what you need to do.

Security and Administration

Windows XP is loaded with new tools and programs that ensure the privacy and security of your data, and help you operate your computer at peak performance. Learn how to assign a password, lock your computer, back up files and folders, and more to protect the contents of your computer. Discover how to manage computer components, services, and system tools; and how to work with disk management and encryption features

Windows File Protection

In versions of Windows prior to Windows 2000, installing software in addition to the operating system might overwrite shared system files such as dynamic-link libraries (.dll files) and executable files (.exe files). Disk Management Overview

The Disk Management snap-in is a system utility for managing hard disks and the volumes, or partitions that they contain. With Disk Management, you can initialize disks, create volumes, format volumes with the FAT, FAT32, or NTFS file systems, and create fault-tolerant disk systems. Disk Management enables you to perform most disk-related tasks without shutting down the system or interrupting users; most configuration changes take effect immediately.

Permissions on a File Server

One possible scenario for working with permissions is when you must assign permissions for the files on a file server. For example, suppose you need to Set file permissions on a server used by a small department. The file server includes an applications folder, home folders for each of the department's users, a public folder where users can share files, and a drop folder where users can file confidential reports that only the group manager can read.

Protecting Against Viruses and Trojan Horses

In today's computing world, you must prevent intentional instruction into your computer and network that take the form of viruses and Trojan horses. Follow these tips to help prevent virus outbreaks and Trojan horse attacks.

Computer Administrator Account

The computer administrator account is intended for someone who can make system wide changes to the computer, install programs, and access all files on the computer. Only a user with computer administrator account has full access to other user accounts on the computer.

Task Manager Overview

Task Manager provides information about programs and processes running on your computer. It also displays the most commonly used performance measures for processes. You can use Task Manager to monitor key indicators of your computer's performance. You can also assess the activity of running processes using as many as fifteen parameters, and see graphs and data on CPU and memory usage.

Open Database Connectivity

We can use Data Sources Open Database Connectivity (ODBC) to access data from a variety of database management systems. For example, if you have a program that accesses data in a SQL database, Data Sources (ODBC) will let you use the same program to access data in a Visual FoxPro database. To do this, you must add software components called drivers to your system. Data Sources (ODBC) helps you add and configure these drivers.

Improved Reliability

Windows XP improves computer's reliability by introducing new wizard utilities and resources that helps you to keep your system running smoothly:

- Widows update
- System file checker
- Scan Disk
- Registry checker
- Back up

Faster Operating System

Windows XP includes tools that help your computer run faster. Without adding new hardware, Windows XP includes the suit of programs designed to optimize our computer's efficiency especially when used together:

- Maintenance wizard
- Drive Converter
- Disk defragmenter

The learning edition allows programmer to create powerful application MS-windows operating systems.

1.2.3 Software Selection

Microsoft Visual Basic 6.0

Visual Basic (VB) is an ideal programming language for developing Sophisticated professional applications for Microsoft Windows. It makes use of Graphical User Interface for creating robust and powerful applications. The Graphical User Interface as the name suggests, uses illustrations for text, which enable users to interact with an application. This feature makes it easier to comprehend things in a quicker and easier way.

Coding in GUI environment is quite a transition to traditional, linear programming methods where the user is guided through a linear path of execution and is limited to small set of operations. In GUI environment, the number of options open to the user is much greater, allowing more freedom to the user and developer. Features such as easier comprehension, user-friendliness, faster application development and many other aspects such as introduction to ActiveX technology and Internet features make **Visual Basic** an interesting tool to work with.

Visual Basic (VB) was developed from the BASIC programming language. In the 1970s, Microsoft started developing ROM-based interpreted BASIC for the early microprocessor-based computers. In 1982, Microsoft QuickBasic revolutionized Basic and was legitimized as a serious development language for MS-DOS environment. Later on, Microsoft Corporation created the enhanced version of BASIC called Visual Basic for Windows.

IMPORTANCE FEATURES OF VISUAL BASIC (VB)

- Response to mouse and keyboard actions
- Clipboard and printer access
- Full array of mathematical, string handling, and graphics functions
- Can handle fixed and dynamic variable and control arrays
- Sequential and random access file support
- Useful debugger and error-handling facilities
- Powerful database access tools
- ActiveX support
- Package & Deployment Wizard makes distributing your applications simple

VISUAL BASIC PROFESSIONAL EDITION

The professional Edition provides computer professionals with a full featured set of tools for developing solutions for others. It includes all the features of the learning edition, plus additional Active X controls, the internet information server application designer, integrated data tools and data environment, active data objects, and the dynamic HTML page designer. Documentation provides with the professional edition includes the visual studio professional features book plus Microsoft developer network CD's containing full online documentation.

VISUAL BASIC LEARNING EDITION

The Visual Basic Learning Edition allows Programmers to easily create powerful applications for Microsoft Windows and Windows NT®. It includes all intrinsic controls, plus grid, tab and data-bound controls. Documentation provided with this edition includes Learn VB Now (a multimedia CD-ROM title), plus Microsoft Developer Network CDs containing full online documentation.

VISUAL BASIC CONCEPT

In order to understand the application development process, it is helpful to understand some of the keys concepts upon Which Visual Basic is a Windows Development language, some familiarity with the Windows

Programming, you need to be aware of some fundamental differences between programming for Windows versus other environments.

INTEGRATED DEVELOPMENT ENVIRONMENT ELEMENTS

One of the most significant changes in Visual Basic 6.0 is the Integrated Development Environment (IDE). IDE is a term commonly used in the programming world to describe the interface and environment that we use to create our applications. It is called integrated because we can access virtually all of the development tools that we need from one screen called an interface. The IDE is also commonly referred to as the design environment, or the program.

The Visual Basic IDE is made up of a number of components

- Menu Bar
- Tool Bar
- Project Explorer
- Properties window
- Form Layout Window
- Toolbox
- Form Designer
- Object Browser
- Code editor

In previous versions of Visual Basic, the IDE was designed as a Single Document Interface (SDI). In a Single Document Interface, each window is a free-floating window that is contained within a main window and can move anywhere on the screen as long as Visual Basic is the current application. But, in Visual Basic 6.0, the

IDE is in a Multiple Document Interface (MDI) format. In this format, the windows associated with the project will stay within a single container known as the parent. Code and form-based windows will stay within the main container form.

MENU BAR

This Menu Bar displays the commands that are required to build an application. The main menu items have sub menu items that can be chosen when needed. The toolbars in the menu bar provide quick access to the commonly used commands and a button in the toolbar is clicked once to carry out the action represented by it.

TOOLBOX

The Toolbox contains a set of controls that are used to place on a Form at design time thereby creating the user interface area. Additional controls can be included in the toolbox by using the Components menu item on the Project menu.

PROJECT EXPLORER

Docked on the right side of the screen, just under the toolbar, in the Explorer window. The Project Explorer as shown in figure server as a quick reference to the various elements of a project namely *form*, *classes* and *modules*

PROPERTIES WINDOW

The Properties Window is docked under the Project Explorer window. Properties Window exposes the various characteristics of selected objects. Each and every form in an application is considered an object. Now, each Object in Visual Basic has characteristics such as color and size.

OBJECT BROWSER

The Object Browser allows us to browse through the various properties, events and methods that are made available to us. It is accessed by selecting Object Browser from the View menu or pressing the key F2. The left column of the Object Browser lists the objects and classes that are available in the projects that are opened and the controls

those have been referenced in them. It is possible for us to scroll through the list and select the object or class that we wish to inspect.

THE TOOL BAR

The toolbar provides quick access to commonly used commands. These will be explained later in the manual. The Toolbar provides the user quick access to the most commonly used functions of a program. A toolbar can be used stand-alone or as a complement to the program's menu structure.

FORM LAYOUT WINDOW

This shows the Form Layout Window, which lets you determine the starting position of your form relative to the screen.

CODE EDITOR

Visual Studio, like any other IDE, includes a code editor that supports syntax highlighting and code completion using IntelliSense for not only variables, functions and methods but also language constructs like loops and queries. IntelliSense is supported for the included languages, as well as for XML and for Cascading Style Sheets and JavaScript when developing web sites and web applications.

FORM DESIGN WINDOW

This is where you design your form. A form is what you will present to a user of your application. A form could be an introduction screen, it could be a dialog box giving the user options, it could be a box containing a warning. All of your VB programs will revolve around a number of forms.

VISUAL BASIC CONTROLS

POINTER

Provides a way to move and resize the controls form.

PICTURE BOX

Displays icons/bitmaps and metafiles. It displays text or Acts as a visual container for other controls.

TEXT BOX

Used to display message and enter text.

FRAME

Serves as a visual and functional container for controls.

COMMAND BUTTON

Used to carry out the specified action when the user chooses it.

CHECK BOX

Displays a True/False or Yes/No option.

OPTION BUTTON

Option Button control which is a part of an option group allows the user to select only one option even it displays multiple choices.

LIST BOX

Displays a list of items from which a user can select one.

COMBO BOX

Item from the dropdown List Box, or to type in a selection in the Text Box. Contains a Text Box and a List Box. This allows the user to select

H SCROLL BAR, V SCROLL BAR

These controls allow the user to select a value within the specified range of values.

TIMER

Executes the timer events at specified intervals of time.

DRIVE LIST BOX

Displays the valid disk drives and allows the user to select one of them.

DIR LIST BOX

Allows the user to select the directories and paths, which are displayed.

FILE LIST BOX

Displays a set of files from which a user can select the desired one.

SHAPE

Used to add shape (rectangle, square or circle) to a Form.

LINE

Used to draw straight line to the Form.

IMAGE

Used to display images such as icons, bitmaps and Metafiles. But less capability than the Picture Box .

DATA

Enables the use to connect to an existing database and display information from it.

OLE

Used to link or embed an object, display and manipulate Data from other windows based applications.

LABEL

Displays a text that the user cannot modify or interact With.

Microsoft Access

Microsoft Access is an application used to create small and midsize computer desktop databases for the Microsoft Windows family of Operating systems. It can also be used as database server for a web-based Application. It is also supported by ADO, ODBC, and the .NET Framework, etc.

This web site provides lessons on how to use Microsoft Office Access 2007 to create and manage databases. The lessons follow a step-by-step format with practical examples.

To follow these lessons, you must have Microsoft Office Access 2007 installed on your computer. The lessons are listed on the left side of this age. Below, thelessons are presented as topics.

Access stores data in its own format based on the Access Jet Database Engine. It can also import or link directly to data stored in other Access Databases, Excel, Share Point lists, text, XML, Outlook, HTML, dBase, Paradox, Lotus 1-2-3, or any ODBC-compliant data container, including

Visual objects used in forms and reports expose their methods and properties in the VBA programming environment, and VBA code modules may declare and call Windows operating system functions. VBA with .NET Framework can be considered a successor to Access in the sense that it can produce web front-ends for databases and includes much of the functionality of VBA in Access.

FUNCTION

Microsoft Access is a database software program that makes manipulating data manageable for users of many skill levels. You can input data and sort, filter or group information according to your needs. It's particularly useful when there are thousands of records and sorting through them individually would take hours. Access allows you to obtain the information quicker by providing a few commands to tell the program what is being sought. Reports can be created, too, that pull information out of the database according to the project parameters. For example, information on a customer's age, sex, marital status, address, email address, phone number and cell phone number may be listed in your database. However, demographics about the client may be the only thing necessary to complete a given project. You can then build a report that will extract customers by age, sex and marital status.

BENEFITS

Flexibility is the key with Access. Knowing that not everyone is skilled at making databases, Microsoft created basic templates that a user can go and use immediately. However, a database can be built from scratch or the templates can be tweaked as needed to fit your needs. Rather than inputting each record every time a project is started, Access holds thousandsof records for you to revisit whenever needed, making it a time-saver, too. This is great becausenot only is the information there, but it can be used alongside other Microsoft programs such as Word. Simply create a mail merge with thousands of letters and join it together with the Access database. All contacts will be pulled from Access and dumped into each letter separately. Interaction between MS Outlook is possible too. Import contacts from your MS Outlook contact book into Access or export contact information in Access and save it as a contact in Outlook

PROTECTION

Microsoft Access offers several ways to secure the application while allowing users to remain productive. The most basic is a database password. Once entered, the user has full control of all the database objects. This is a relatively weak form of protection which can be easily cracked.

A higher level of protection is the use of workgroup security requiring a user name and password. Users and groups can be specified along with their rights at the object type or individual object level. This can be used to specify people with read only or data entry rights but may be challenging to specify. A separate workgroup security file contains the settings which can be used to manage multiple databases. Workgroup security is not supported in the Access 2007 ACCDB database format, although Access 2007 still supports it for MDB databases. Databases can also be encrypted.

SPLIT DATABASE ARCHITECTURE

Microsoft Access applications can adopt a split database architecture. The database can be divided into a front end database that contains the application objects (queries, forms, reports, macros, and modules), and is linked to tables stored in a back end shared database containing the data. The 'back-end' database can be stored in a location shared by many users, such as a file server.

The 'front-end' database is distributed to each user's desktop and linked to the shared database. Using this design, each user has a copy of Microsoft Access installed on their machine along with their application database. This reduces network traffic since the application is not retrieved for each use, and allows the front end database to contain tables with data that is private to each user for storing settings or temporary data.

This split database design also allows development of the application independent of the data. When a new version is ready, the front end database is replaced without impacting the data database. Microsoft Access has two Built-in utilities, Database Splitter and Linked Table Manager, to facilitate this architecture.

2. Analysis of the System

2.1 SCOPE OF THE SYSTEM

This Project work is designed with the following scopes.

- The system is able to provide complete information about the college Administarion and Students Details.
- The System is also able to maintain all the information even in critical circumstances
- It is designed in a user friendly manner, in order to help the end user to avoid errors.
- Precise and standard reports are generated according to the user wish.

2.2 Existing System

For the past few years the number of educational institutions are increasing rapidly. Thereby the number of hostels are also increasing for the accommodation of the students studying in this institution. And hence there is a lot of strain on the person who are running the hostel and software's are not usually used in this context.This particular project deals with the problems on managing a hostel and avoids the problems which occur when carried manually Identification of the drawbacks of the existing system leads to the designing of computerized system that will be compatible to the existing system with the system which is more user friendly and more GUI oriented. We can improve the efficiency of the system, thus overcome the following drawbacks of the existing system.

· more human error.
· more strength and strain of manual labour needed
· Repetition of the same procedures.
· low security
· Data redundancy
· difficult to handle
· difficult to update data
· record keeping is difficult
· Backup data can be easily generated

2.3 Proposed System

The system design is divided in to two portions. The Administrator section and the User(student's) section.

1. The Administrator can allot different students to the different hostels.
2.He can vacate the students for the hostels.
3.He can control the status of the fee payement.
4.He can edit the details of the students.He can change their rooms, edit and delete the student records.

A process of converting user originated inputs to a computer-based format. Input design is an important part of development process since inaccurate input data are the most common cause of errors in data processing. Erroneous entries can be controlled by input design. It consists of developing specifications and procedures for entering data into a system and must be in simple format**.** The goal of input data design is to make data entry as easy, logical and free from errors as possible. In input data design, we design the source document that
capture the data and then select the media used to enter them into the computer.

2.4 Feasibility Study

The project is feasible given unlimited resources and infinite time. It is both necessary and prudent to evaluate the feasibility of the project at the earliest possible time. Feasibility and risk analysis is related in many ways. If project risk is great, the feasibility listed below is equally important.

The following feasibility techniques has been used in this project

- Operational Feasibility
- Technical Feasibility
- Economic Feasibility

Operational Feasibility

Proposed system is beneficial since it turned into information system analyzing the traffic that will meet the organizations operating requirements in security, the file is transferred to the destination and the acknowledgement is given to the server. Bulk of data transfer is sent without traffic.

Technical Feasibility

Technical feasibility centers on the existing computer system (hardware, software, etc.) and to what extent it can support the proposed addition. For example, if the current computer is operating at 80% capacity. This involves, additional hardware (RAM and PROCESSOR) will increase the speed of the process. In software, language that is VB 6 and Access is used. We can also use in Linux, Windows operating system.

The technical requirement for this project are Windows Operating System as software and normal hardware configuration is enough ,so the system is more feasible on this criteria.

Economic Feasibility

Economic feasibility is the most frequently used method for evaluating the effectiveness of a candidate system. More commonly known as cost / benefit analysis, the procedure is to determine the benefits and saving that are expected from a candidate and compare them with the costs. If the benefits outweigh cost then the decision is made to design and implement the system. Otherwise drop the system.

This system has been implemented such that it can be used to analysis the traffic. So it does not require any extra equipment or hardware to implement. So it is economically feasible to use.

SYSTEM DESIGN

3.1 Input Design

Input design is a process of converting user orientation into a computer based format. Input data are collected and organized into groups similar data. The goal of designing input data is to make data entry as easy, logical and free from error as possible.

Once the input data are identified appropriate input media are selected for processing. The major approaches for entering data into computer are.

- **Links**
- **Forms**
- **prompts**

Among these links and forms are used in the proposed system. Links are used to provide a selection list that simplifies computed data access or entry. A form is pre-designed templates that request the user to enter data in the appropriate location. Input and designs are considered as the heart of the system. Input design forms are developed using visual basic in user friendly manner

3.2 DATABASE DESIGN

DATABASE MANAGEMENT

Database Management System (DBMS) is a set of computer programs that controls the creation, maintenance, and the use of the database with computer as a platform or of an organization and its end users. It allows organizations to place control of organization-wide database development in the hands of database administrators (DBA) and other specialists. A DBMS is a system software package that helps the use of integrated collection of data records and files known as databases. It allows different user application programs to easily access the same database. DBMS may use any of a variety of database models, such as the network model .

It's an organized collection of data. A database management system (DBMS) such as Access, FileMaker Pro, Oracle or SQL Server provides you with the software tools you need to organize that data in a flexible manner. It includes facilities to add, modifyor delete data from the database, ask questions (or queries) about the data stored in the database and produce reports summarizing selected contents.

When we use work with data in a Microsoft Access database, user must first create a connection to a Database file. The easiest way to create a connection to a Microsoft Access file is to create a data environment using the Data Environment designer.

CHARACTERISTICS OF DATABASE MANAGEMENT SYSTEM:

- It represents complex relationships between data.
- Keeps all light control of data redundancy.
- Enforces user-defined rule to ensure the integrity of table data has a centralized data dictionary for the storage of information pertaining to data and its manipulation.
- Ensure that data can be shared across application.
- Enforces data access authorization have automatic, intelligent backup and recovery procedures for data.

DATABASE DESIGN

When we design a database, first decide what tables we need, what type of goes in each table, who can access each table and so on. As you create and work with tables, you continue to make more detailed decisions about them.

The most efficient way to create a table is to define every a table is to define everything you need in the table at one time, including its data restrictions andadditional components. However, you can also create a basic table, add some data to it,and then work with it for a while. This approach gives you a chance to see what types of transactions are most common and what types of data are frequently entered.

Before you commit to firm design by adding constrains, indexes, defaults, rules and other objects.

3.3 Process Design

Process design plays an important role in project development. In order to understand the
working procedure, process design is necessary. Data Flow Diagram and System Flow chart are the tools used for process design. System Flow Chart is a graphical representation of the system showing the overall flow of control in processing at the job level; specifies what activities must be done to convert from a physical to logical model. Data Flow Diagram is the logical representation of the data flow of the project. The DFD is drawn using various symbols. It has a source and a destination. The process is represented using circles
and source and destination are represented using squares. The data flow is represented using arrows. One reader can easily get the idea about the project through Data Flow Diagram.

3.4 OUTPUT DESIGN

In output design, the emphasis is on producing a hard copy of the information request or displaying the output on the CRT screen in a pre-defined format.

Computer output is the most important and direct source of information to the user. Efficient, intelligible output design improves the system relationship with the user and helps in decision making.

The output design mainly contributes towards the reports generated for making the decision .by checking the desired condition, the reports are generated.

TESTING AND IMPLEMENTATION

4.1 Testing

The goals of verification and validation activities are to access and improve quality of the work products generated during development is “Are we building the product right?” and validation is “Are we building the right product?”

4.1. 1 System Testing:

Software once validate must be combined with other system elements. System testing verifies that all the elements miss properly and that overall system function performance is achieved. It also tests to find discrepancies between system and its original current specification and system documentation.

4.1.2 Unit testing

Starting from the bottom, the first level of testing is component testing some time it is called unit testing specified in the component correctly. In theory an independent tester should do this. But in practice the developer does it as they people to understand how a component works. The problem with a system, which may not have been built it. To overcome component is that it performs only a small part of functionality of a system and it relies on cooperating with other parts of this developer either built or usesspecial software to make it accurately.

Black box testing is the most important testing to ensure that users of the application have a flawless and satisfying experience. Because black box testing is to identifying contradictions in function specification from the user’s perspective, having a tool that brings efficiency to your testing process is essential.

Testing anywhere gives the power and organization to gain efficiency in the block box testing, with tools that make test creation and management a breeze for

anyone. Automate the test with intuitive tools that make testing quickly and effective allowing for quicker development. The purpose of any security testing method is to ensure the robustness of the system in the face of malicious attacks or regular software failure.

The white box testing is performed based on the knowledge of how the system is implemented. White box testing includes analyzing data flow, control flow, information flow, coding practices exception and error handling within the system.

To testing the intended and unintended software behavior. White box testing can be performed to validate whether code. Implementation follows intended design, to validate implemented security functionality and uncover exploitable vulnerabilities.

4.1.3 Integration Testing:

Integration testing address issues associated with the dual problem of verification and program construction. After the software has been integrates a set of high-order tests are conducted.

The main objective of this testing process is to take unit tested modules and build a program structure that has been dictated by design.

The following are the types of integration testing,

- Top-down integration
- Bottom-Up integration

4.1.4 Output Testing:

This system developed and give the different types of inputs and tested the required outputs are displayed.

4.2 IMPLEMENTATION

The Hardware Sales and Service system developed may be totally new, replacing an existing system. Proper implementation is essential to provide a reliable system to meet organization requirements. Implementation is the stage of the project when the theoretical design is turned into an actual working system.

The process of implementation involves:

- Training the implementation to learn the system. Careful planning and method to implementation
- Making necessary changes to the system as desired by the user.
- Testing the developed program with adequate sample data.

Maintenance hold the software industry captive, typing up programming resources; analyst and programmers spend for more time maintaining programs that they do write them.

Maintenance is not as rewarding as exciting as developing system, few tools and techniques are available for maintenance a good test plan is lacking. Maintenance covers a wide range of activities, including correcting coding and design errors,updating user support.

Maintenance hold the software industry captive, typing up programming resources; analyst and programmers spend for more time maintaining programs that they do write them. Maintenance is not as rewarding as exciting as developing system, few tools and techniques are available for maintenance a good test plan is lacking. Maintenance covers a wide range of activities, including correcting coding and design errors, updating user support.

5. CONCLUSION

It is an excellent tool for the maintenance of the Garment Management.

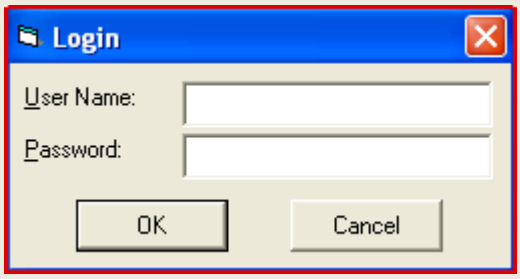
The development stages follows system analysis and design approach. This system has undergone testing techniques and bugs have been removed in this project. Input entries can be updated and maintained in several other systems. It is also very useful for Performing day to day management activities. It is menu driven and user-friendly.

POSSIBILITIES OF ENCHANCEMENTS:

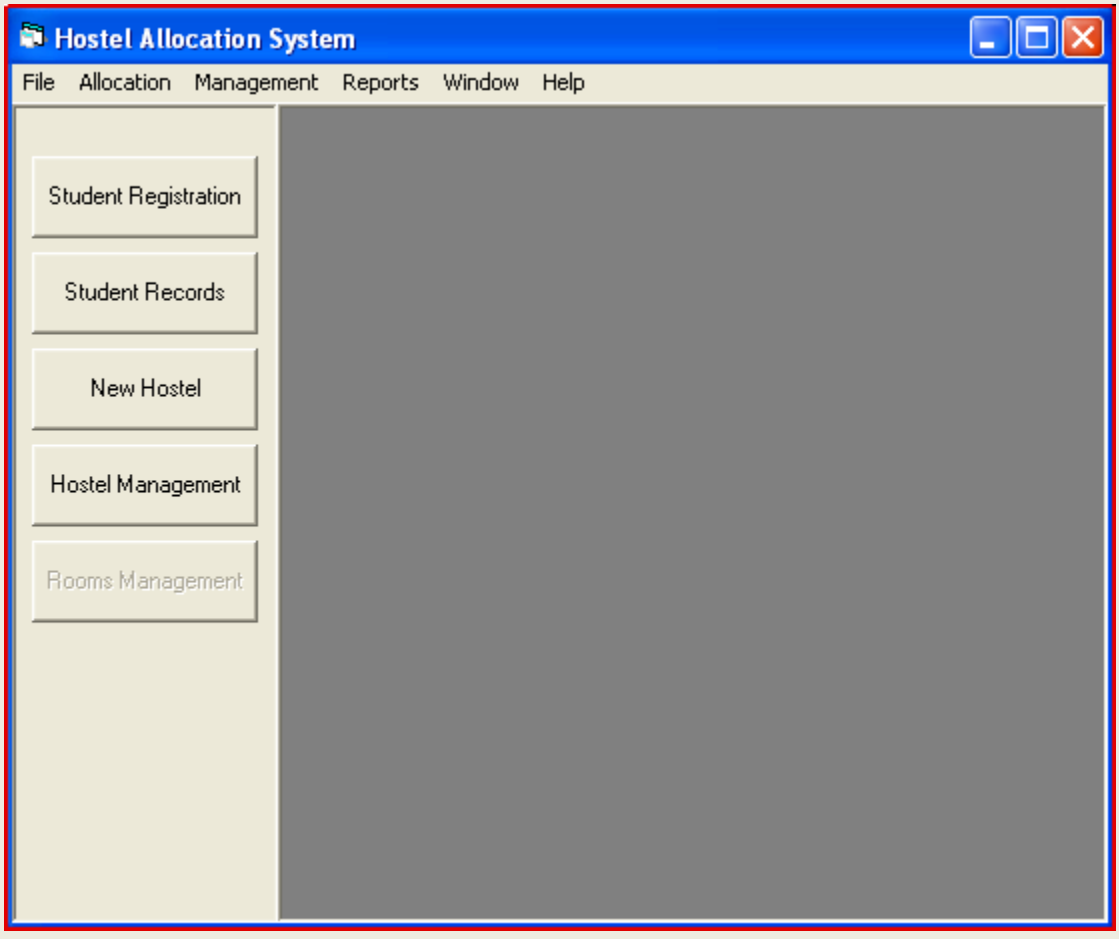
Our aim is to make future enhancement To the Software Tool For The Additional Business Logic. A website can be established with support of our system and the transactions can be performed from remote access. The development stages follows system analysis and design approach. This system has undergone testing techniques and bugs have been removed in the forms. It is very useful for performing day to day management activities. Employee details and account number can also be maintained in this project. Employee pay role can also be an Enhancement

6.2. Screen Layouts

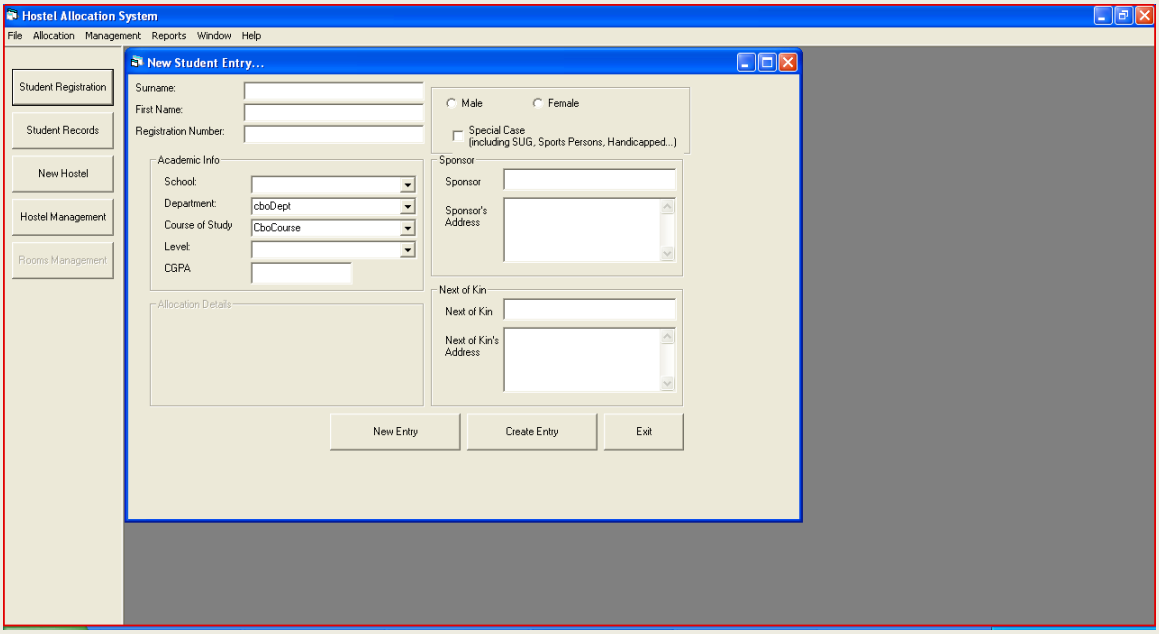
Login Form :



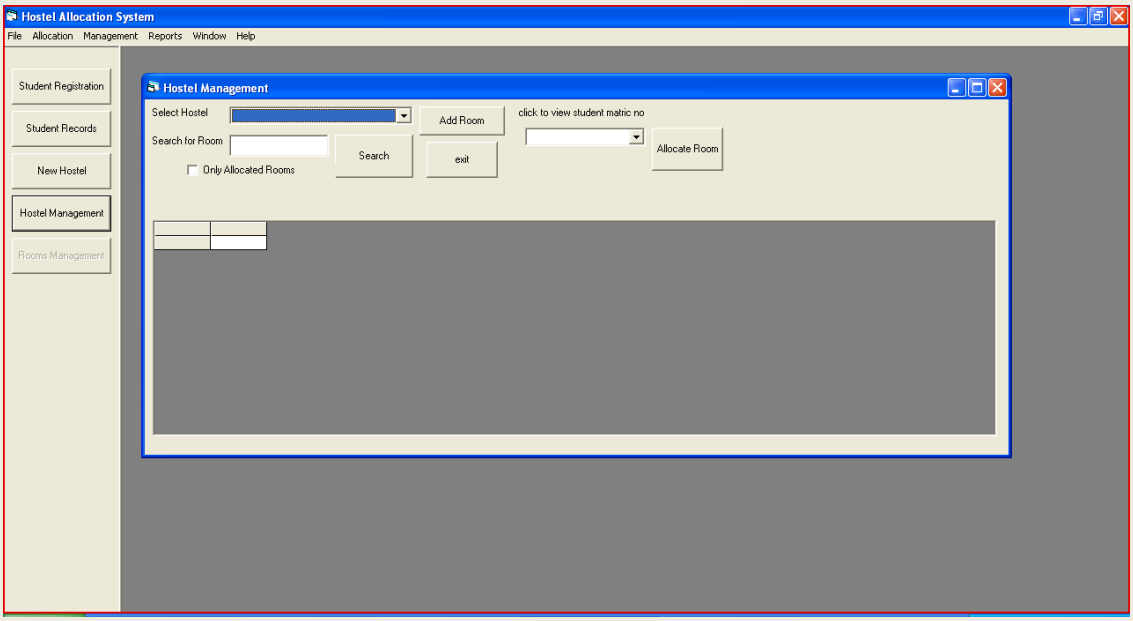
Main Form :



Student registration:



Hostel management:



6.3. Source Code

Login coding

```
Dim rsLogin As New Recordset

Private Sub cmdCancel_Click()
    'set the global var to false
    'to denote a failed login
    LoginSucceeded = False
    Unload Me
End Sub

Private Sub cmdOK_Click()
    'check for correct password
    sSQL = "select * from users where username = '" & txtUserName & "'"
    Set rsLogin = cn.Execute(sSQL)

    If rsLogin.EOF And rsLogin.BOF Then
        MsgBox "Invalid Username, try again!", , "Login"
        txtUserName.SetFocus
        SendKeys "{Home}+{End}"
        Exit Sub
    End If
```

```
    If rsLogin.Fields("password") <> txtPassword Then
        MsgBox "Invalid Password, try again!", , "Login"
        txtPassword.SetFocus
        SendKeys "{Home}+{End}"
        Exit Sub
    End If

    'password correct
    frmMain.Show
    Unload Me
End Sub

Private Sub Form_Unload(Cancel As Integer)
    Unload frmSplash
End Sub
```

Main Form Coding:

```
Private Sub Command1_Click()
    frmStudReg.Show
End Sub

Private Sub Command2_Click()
    frmStudRec.Show
End Sub

Private Sub Command3_Click()
```

```
    frmAddHostel.Show
End Sub

Private Sub Command4_Click()
    frmHostelMgt.Show
End Sub

Private Sub Command6_Click()
DataReport5.Show
End Sub

Private Sub mnuAbout_Click()
    frmAbout.Show 1
End Sub

Private Sub mnuAllocate_Click()
    MsgBox "Automatic Allocation wiating for Supervisor Recommendation!", vbInformation

End Sub

Private Sub mnuCascade_Click()
    Me.Arrange vbCascade
End Sub

Private Sub mnuCreateHostel_Click()
    frmAddHostel.Show
End Sub
```

```
Private Sub mnuDocumentation_Click()
    frmBrowser.Show
End Sub

Private Sub mnuExit_Click()
    Unload Me
End Sub

Private Sub mnuRptHostels_Click()
    frmRptHostel.Show
End Sub

Private Sub mnuHostelMgt_Click()
    frmHostelMgt.Show
End Sub

Private Sub mnuMgtStudent_Click()
    frmStudRec.Show
End Sub

Private Sub mnuNonHND2_Click()
    DataReport9.Show
End Sub

Private Sub mnuReg_Click()
    frmStudReg.Show
```

```
End Sub

Private Sub mnuRptAllUn_Click()
    DataEnvironment1.Command4_Grouping
    DataReport2.Show
End Sub

Private Sub mnuRptFully_Click()
    DataEnvironment1.Command5_Grouping
    DataReport3.Show
End Sub

Private Sub mnuRptHos_Click()
    frmRptHostel.Show
End Sub

Private Sub mnuRptPartial_Click()
    DataEnvironment1.Command3_Grouping
    DataReport1.Show
End Sub

Private Sub mnuRptStudDept_Click()
    DataReport6.Show
End Sub

Private Sub mnuRptStudDeptF_Click()
DataReport7.Show
```

```
End Sub

Private Sub mnuRptStudDeptM_Click()
    DataReport10.Show
End Sub

Private Sub mnuRptStudSpc_Click()
DataReport8.Show
End Sub

Private Sub mnuRptViewAll_Click()
    DataEnvironment1.Command7_Grouping
    DataReport4.Show
End Sub

Private Sub Picture1_Click()
End Sub
```

CREATE HOSTEL :

```
Dim sSQL As String

Private Sub Command1_Click()
    On Error GoTo ErrorHandler

    cn.BeginTrans
```

```
    sSQL = "insert into hostelname(HostelName, HostelNickname, Sex, Prefix, Capacity, CapacityUsed) values ('" & txtHostelName & "','" & txtNickname & "','" & cboSex & "','" & txtPrefix & "', " & CInt(txtCapacity) & ", 0)"


    cn.Execute sSQL
    MsgBox "Hostel " & txtHostelName & " created.", vbInformation
    cn.CommitTrans
    Exit Sub
ErrorHandler:
    cn.RollbackTrans
    MsgBox "Hostel " & txtHostelName & " not created.", vbInformation
End Sub

Private Sub Command2_Click()
Unload Me
End Sub

Private Sub Form_Load()
    With cboSex
        .Clear
        .AddItem "Female"
        .AddItem "Male"
        .AddItem "Mixed"
    End With
End Sub

Private Sub txtHostelName_Change()
    txtPrefix = Left$(txtHostelName, 1)
```

```
    Command1.Caption = "Create Hostel '" & txtHostelName & "'"
End Sub
```

Adding room :

```
Dim rsHostel As New Recordset
Private Sub cboHostels_Click()
sSQL = "select sex from hostelname where hostelname = '" & cboHostels & "'"
Set rsHostel = cn.Execute(sSQL)
If LCase$(rsHostel.Fields(0)) = "male" Then
    txtRoomSex.Clear
    txtRoomSex.AddItem "Male"
ElseIf LCase$(rsHostel.Fields(0)) = "female" Then
    txtRoomSex.Clear
    txtRoomSex.AddItem "Female"
Else
    txtRoomSex.Clear
    txtRoomSex.AddItem "Male"
    txtRoomSex.AddItem "Female"
End If
End Sub

'dim
Private Sub cmdCancel_Click()
    Create_Room
    Unload Me
End Sub
```

```
Private Sub cmdCreateRoom_Click()
    Create_Room
    Clear_Fields
End Sub

Private Sub Command1_Click()
Unload Me
End Sub

Private Sub Form_Load()
    txtRoomSex.Clear
    txtRoomSex.AddItem "Male"
    txtRoomSex.AddItem "Female"

    sSQL = "select * from HostelName"
    Set rsHostel = cn.Execute(sSQL)
    rsHostel.MoveFirst
    cboHostels.Clear
    Do While Not rsHostel.EOF
        cboHostels.AddItem rsHostel.Fields(1)
        rsHostel.MoveNext
    Loop
End Sub

Sub Create_Room()
    Dim intCapacity As Integer
```

```
    Dim strRoomNumber, strSex As String

    strRoomNumber = Me.txtRoomNumber
    intCapacity = CInt(txtRoomCapacity)
    strSex = Me.txtRoomSex

    If strRoomNumber = "" Then
        MsgBox "please enter an entry for the room number"
        Exit Sub
    End If

    If intCapacity = 0 Then
        MsgBox "please enter an entry for the room capacity"
        Exit Sub
    End If

    If strSex = "" Then
        MsgBox "please enter an entry for the room sex"
        Exit Sub
    End If


    mess = MsgBox("create room entry - number:" & strRoomNumber & " capacity:" &
intCapacity & " members sex:" & strSex & " - in hostel:" & cboHostels.Text & "?", vbYesNo)
    If mess = vbNo Then
        Exit Sub
    End If
```

```
    sSQL = "select capacity from hostelname where hostelname = '" & cboHostels.Text & "'"
    Set rshotel = cn.Execute(sSQL)

    'insert room record
    sSQL = "insert into Hostels(RoomID, HostelName, RoomNumber, Capacity, Allocated, Sex) values ('" & Left$(cboHostels.Text, 1) & "-" & strRoomNumber & "','" & cboHostels.Text & "','" & strRoomNumber & "'," & intCapacity & ",0,'" & strSex & "')"
    cn.Execute sSQL

    sSQL = "select * from HostelName where HostelName='" & cboHostels & "'"
    Set rsHostel = cn.Execute(sSQL)

    Cap = CInt(rsHostel.Fields("capacity"))
    'update hostel parent record - total capacity
    sSQL = "update hostelname set capacity = " & Cap + CInt(intCapacity) & " where HostelName = '" & cboHostels & "'"
    cn.Execute sSQL
End Sub

Sub Clear_Fields()
    Me.txtRoomCapacity = ""
    Me.txtRoomNumber = ""
    Me.txtRoomSex = ""
End Sub
```

6.4 Table Structure

BRANCH_INFO

Field Name	Data Type	Size	Allow Nulls
BCODE	Text	50	False
BNAMEd	Text	50	False
DURATION	NUMBER		

FINE_DETAILS

regno	Data Type	Size	Allow Nulls
Student name	Text	50	False
hostel name	Text	50	False
Blocktype	Text	50	False
Blockdesc	Text	50	False
ROOM NO	Number		
Finedesc	Text	50	False
_fineamount	Currency		
dat	Date/time		False
FNO	Text	50	False

Hostel_fee

Field Name	Data Type	Size	Allow Nulls
Regno	Number		
name	Text	50	False
bcode	Number		
bname	Text	50	False
Hostel_name	Text	50	False
Blocktype	Text	50	False
roomno	Text	50	False
Roomdesc	Text	50	False
fees	Currency		

Hostel_info

Field Name	Data Type	Size	Allow Nulls

Hostel_name	Text	50	False
Blocktype	Text	50	False
blockdesc	Text	50	False
roomstart	Number		
roomend	Number		
NO_OF_PERSONS	Number		

ITEM_ALLOC

Field Name	Data Type	Size	Allow Nulls
REGNO	Number	50	False
STUD_NAME	Text	50	False
HOSTEL NAME	Text	50	False
BLOCK NAME	Text	50	False
BLOCK DESC	Text	50	False
ROOM NO	Number	50	False
ITEM NAME	Text		
ITEM CODE	Text		

ITEM_DESC

Field Name	Data Type	Size	Allow Nulls
IT CODE	Text	50	False
ITEM NAME	Text	50	False

JOIN DETAILS

Field Name	Data Type	Size	Allow Nulls
Regno	Number	50	False
Date_of _joining	Date/time	50	False
Hostel name	Text	50	False
Block type	Text	50	False
Block desc	Text	50	False
Room no	Number	50	False
Fees paid	Text		
Fees_receip_no	Number		

ROOM _ALLOC

Field Name	Data Type	Size	Allow Nulls
APPLICATAION	Number	50	False
REGNO	Number	50	False
NAME	Text	50	False
SEX	Text	50	False
HOSTEL NAME	Text	50	False
BLOCK	Text	50	False
BLOCK DESC	Text	50	False
ROOM NO	Number		False
BRANCH	Text	50	False
HOSTELID	Text	50	False
YEAR	Number		False

ROOM_INFO

Field Name	Data Type	Size	Allow Nulls
Hostel name	Text	50	False
Room no	Number	50	False
Room desc	Text	50	False
No_of_person	Number	50	False

STUD_INFO

Field Name	Data Type	Size	Allow Nulls
App_no	Number	50	False
Reg_no	Number	50	False
Name	Text	50	False
Sex	Text	50	False
Marital status	Text	50	False
Father name	Text	50	False
Guardian name	Text	50	False
Permanent add	Text	50	False
Local add	Text	50	False
Blood group	Text	50	False
PHONE NO	Number		False

VACCATING_DETAIL

Field Name	Data Type	Size	Allow Nulls
REGNO	Number	50	False
NAME	Text	50	False
HOSTEL NAME	Text	50	False
BLOCK TYPE	Text	50	False
BLOCK DESC	Text	50	False
ROOM NO	Number	50	False
ITEM SERVICE	Text	50	False
FINE PAID	Text	50	False
DATE_OF_DELETING	Date/time		False

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