

BLOOD BANK MANAGEMENT SYSTEM

Project Report submitted in partial fulfillment of the requirements for the award of the degree of

BACHELOR OF COMPUTER APPLICATIONS (BCA)



Submitted By

YESHWANTH REDDY G 19CS2A1025

Under the guidance of

Prof. Dr. V.S Prakash

DEPARTMENT OF COMPUTER SCIENCE (UG)
BCA PROGRAMME
KRISTU JAYANTI COLLEGE (Autonomous)
K. Narayanapura, Kothanur P.O., Bangalore – 560077



DEPARTMENT OF COMPUTER SCIENCE (UG)

CERTIFICATE OF COMPLETION

This is to certify that the project entitled **BLOOD BANK MANAGEMENT SYSTEM** has been satisfactorily completed by **YESHWANTH REDDY G**, **19CS2A1025** in partial fulfillment of the award of the Bachelor of Computer Applications degree requirements prescribed by Kristu Jayanti College (Autonomous) Bengaluru (Affiliated to Bangalore University) during the academic year 2020 -21.

Internal Guide	Head of the Department	
Valued by Examiners		
1:	Centre: Kristu Jayanti College	
2:	Date:	



DECLARATION

Signature

Yeshwanth Reddy G

Bengaluru

Date:

ACKNOWLEDGEMENT

The success of the project depends upon the efforts invested. It's my duty to acknowledge and thank the individuals who has contributed in the successful completion of the project.

I take this opportunity to express my profound and whole hearted thanks to **Rev. Fr. Dr. AUGUTINE GEORGE, PRINCIPAL, KRISTU JAYANTI COLLEGE**, and **BANGALORE** for providing ample facilities made to undergo my project successfully.

I express my deep sense of gratitude and sincere thanks to our Head of the Department **Prof. SEVUGA PANDIAN** for his valuable advice.

I feel immense pleasure to thank my respected guide **Dr. V.S Prakash** for sustaining Interest and providing dynamic guidance in aiding me to complete this project immaculately and impeccably and for being the source of my strength and confidence.

It is my duty to express my thanks to all Teaching and Non-Teaching Staff members of Computer science department who offered me help directly or indirectly by their suggestions.

The successful completion of my project would not have been possible without my parent's Sacrifice, guidance and prayers. I take this opportunity to thank everyone for their continuous Encouragement. I convey my thankfulness to all my friends who were with me to share my happiness and agony.

Last but not the least I thank almighty God for giving me strength and good health throughout my project and enabling me to complete it successfully.

TABLE OF CONTENTS

S.No	Topic	Page No
1.	Introduction	01
1.1	Problem Definition	01
1.2	Scope of the Project	01
1.3	Modules of the Project	01
2	System Study	02
2.1	Existing System	02
2.2	Feasibility Study	02
2.3	Proposed System	03
3	System Design	03
3.1	ER Diagram	05
3.2	DFD[lev0, lev1]	09
3.3	Gantt Chart	15
3.4	Input / Output Design	18
4	System Configuration	45
4.1	Hardware Requirements	45
4.2	Software Requirements	45
5.	Details of Software	46
5.1	Overview Of Front End	46
5.2	Overview Of Back End	48
5.3	About The Platform	51
6	Testing	52
7	Conclusion And Future Enhancement	56
8	Bibliography	57
9	Appendices A-Screenshots	58
10	Appendices B-Structure	66
11	Appendices C-Sample Report Of Test	69

1.INTRODUCTION

1.1 PROBLEM DEFINATION:

Scarcity of rare blood, Unavailability of blood during emergency, Less awareness among people about blood donation and blood transfusion, Deaths due to lack of blood during operartions, The Blood Bank Management System project aims to make all the procedures automated and therefore with computer system it can be more fast and accurate.

1.2 SCOPE OF THE PROJECT:

This application is built such a way that it should suits for all type of bloodbanks in future. So, every effort is taken to implement this project in this blood bank, on successful implementation in this blood bank, we can target other bloodbanks in the city.

1.3 MODULES OF THE PROJECT:

This project has the following modules, to manage all the requirements of the blood bank.

- 1. Donor Details
- 2. Hospital Details
- 3. Outsider details
- 4. Equipment details
- 5.Blood Issued Details
- 6.Camp details
- 7.Stock Details
- 8.Reports

Donor Details:

This module will enable admin to add new donor to change their details.

Hospital Details:

This module will enable the administrator to add new Hospital Details, modify their details. The Hospital ID is generated automatically. He can also generate Hospital transaction and allows printing.

Outsider Details:

This module enables the administrator to add new outsider details modifytheir details. The Outsider ID is generated automatically. He can also generate Outsider transcation and allows printing.

Equipment Details:

19CS2A1025

This module enables the administrator to enter the equipments available in the blood bank and add the new equipment details . The equipment ID is generated automatically.

Blood issued Details:

This Module enables the administrator to find the issued date of the bloodand find how many blood bags are remaining blood bag is searched by various ID's of Blood Bag ID's.

Camp Details:

This Module enables the administrator to add the new camp details modify hteir details. The camp schedule ID is generated automatically.

Reports:

This module helps the administrator to generate the transaction reports of Donor, Hospital, Outsider.

2.SYSTEM STUDY

2.1 Existing System

In the manual system, firstly the Blood bank and its staff have to manage information regarding the donor details of all the donord manually. Doing this manual transaction was really tedious job. Secondly information regarding Hospital transactions, employee details was to be maintained. This process is timeconsuming and t requires a great manual effort.

Disadvantages:

- More time is consumed.
- More hard work to maintain all records.
- Bulk of paper is to be searched for a single search.

2.2 Feasibility Study

Feasibility is the determination of whether or not a project is worth doing .The process followed in making this determination is called feasibility study.Once it has been determined that the project is feasible keeping the benefit ofthe organization in mind, the analyst can go ahead and prepare the project specipication,which finalizes the project requirements.Different tests of feasibility are studied during the investigation.

Operational Feasibility

Operational feasibility deals with the human ascept of the organization, proposed projects are beneficial only if they can be turned into information systems that will meet the organizations requirements. This feasibility test asksn whether the system will work whwn developed and installed, the users need to be convinced about the advantages of new system.

19CS2A1025 2 | P a g e

Unless this done effectively,the system would not be implemented ven after its development and the old sstem would continue to be used.

2.3 Proposed system

Today on cannot afford to rely on the falible human beings to satnd against the Merciless competition where it is not wise to say "to err is human" no longer valid. It is outdated to rationalize your mistake, So, to kkeep pace with time, to bring about the best result without malfunctioning adn greater efficiencywe have to replace the unending heaps of files with a much sophisticated hard idsk of the computer. One has to use the data management software. Software has been an ascent in automation of various organizations. Many software products working are now in markets, which helped in making the organization has made their work faster and easier. Now only this software has to be loaded on the computer and work can be done. This prevents a time and money. The work become fully automated and any information regarding the organization can be obtained by clicking the button. Moreover, now it's age of computers and automating such an organization gives the better look.

The advantages of the proposed system as follows:

- To reduced the workload.
- To reduce the processing time.
- Easy accessibility to computerized report.

3.SYSTEM DESIGN

In this design phase the architecture is established. This phase starts with the requirement document delivered by the requirement phase and maps the requirement into an architecture.

The architecture defines the components, their interfaces and behaviors. The deliverable design document is the architecture. The design document describes a plane to implement the requirements. This phase represents the "how" phase. Details on computer programming languages and environments, machines, packages, application architecture, distributed architecture layering, memory size, platform algorithms, data structures, global type definitions, interfaces, and many other engineering details are established. The design may include the usage of existing components.

Analyzing the trade-offs of necessary complexity allows for many things to remain simple which, in turn, will eventually lead to a higher quality product. The architecture team also converts the typical scenarios into a test plan.

In our approach, the team, given a complete requirement document, must also indicate critical priorities for the implementation team. A critical implementation priority leads to a task that has to be done right. If it fails, the product fails. If it succeeds, the product might succeed. At the very least, the confidence level of the team producing a successful product will increase. This will keep the implementation team focused. Exactly how this information is conveyed is a skill based on experience more than a science based on fundamental foundations.

System design is the process of defining the architecture components, modules, interfaces, and data for a system to satisfy specified requirements. Systems design could be seen as the applications of systems theory of product development. There is some overlapped with the disciplines of system analysis, systems architecture and systems engineering.

If the broader topic of product development "blends the perspective of marketing, design, and manufacturing into a single approach to product development," then design is the

19CS2A1025 3 | P a g e

act of talking the marketing information and creating the design of the product to be manufactured. Systems design is therefore the process of defining and developing systems to satisfy specified requirements of the user.

Until the 1990s, systems design had a crucial and respected role in the data processing industry. In the 1990s, standardization of hardware and software resulted in the ability to build modular systems. The increasing importance of software running on generic platforms has enhanced the discipline of software engineering.

Object-oriented analysis and design methods are becoming the most widely used methods for computer system design. The UML has become the standard language in object-oriented analysis and design. It is widely used for modeling software systems and is increasingly used for high designing non-software systems and organizations.

Architecture design:

The architecture design of a system emphasizes the design of the system architecture that describes the structure, behavior and more views of that system and analysis.

Logical design:

The logical design of a system pertains to an abstract representation of the data flows, inputs and outputs of the system. This is often conducted via modeling, using an over-abstract (and sometimes graphical) model of the actual system. In the context of systems, designs are included. Logical design includes entity-relationship diagrams (ER diagrams).

Physical design:

The physical design relates to the actual input and output processes of the system. This is explained in terms of how data is input into a system, how it is verified/authenticated, how it is processed, and how it is displayed. In physical design, the following requirements about the system are decided.

- Input requirements,
- Output requirements,
- Storage requirements,
- Processing requirements,
- System control and backup or recovery.

Put another way, the physical portion of system design can generally be broken down into three sub-tasks:

- User interface design.
- Data design.
- Process Design.

User interface design is concerned with how users add information to the system and with how the system presents information back to them. Data design is concerned with how the data is represented and stored within the system. Finally, process design is concerned with how data moves through the system, and with how and where it is validated, secured and/or transformed as it flows into, through and out of the system, At the end of system design phase, documentation describing the three sub-tasks is produced and made available for use in the next phase.

Physical design, in this context, does not refer to the tangible physical design of an

19CS2A1025 4 | P a g e

information system. To use analogy, a personal computer's physical design involves input via a keyboard, processing within the CPU, and output via a monitor, printer, etc. It would not concern the actual layout of the tangible hardware, which for a PC would be a monitor, CPU, motherboard, hard drive, modems, video/graphics cards, USB slots, etc. It involves a detailed design of a user and a product database structure processor and a control processor. The H?S personal specification is developed for the proposed system.

3.1 E-R DIAGRAM

An entity relationship diagram(ERD) shows the relationships of entity sets stored in a database. An entity in this context is a component of adata. In other words, ER diagrams illustrate the lpogical structure of databases.

At first glance an entity ralationship diagram looks very much like a flowchart. It is the specialized symbols, and the meanings of those symbols, that make it unique. Because this ER tutorial focuses on beginners below are some tips that will help you build effective ER diagrams:

- Identify the relevant entities in a given system and determine the relationships among these entities. Easy accessibility to computerized report.
- En entity should appear only once in a particular diagram.
- Provide a precise and appropriate name for each entity,attribute and relationship in the diagram. Terms that are simple and familiar always beats vague, technical-sounding words. In naming entities, remember to use singular nouns. However, adjectives may be used to distinguish entities belonging to the same calss (part-time employee and full time employee, for example). Meanwhile attribute names must be meaningful, unique, system independent and easily understandable.
- Remove vague, redundant or unnecessary relationships between entities.
- Never connnect a relationship to another realtionship.
- Make effective use of colors. You can use coors to classify similar entities or to highlights key areas in your diagrams.

You can draw entity relationship diagrams manuallly, especially when you are just informally showing simple systems to your ppeers, However, for more comple systems and for external audiences, ou need diagramming software such as Creately's to craft visually engaging and precise ER diagrams. The ER Diagram Software offered by Creatively as an online service is pretty easy to useand is a lot more affordable than purchasing licensed software. It is also perfectly siuted for development tems because of its strong support for colliboration.

The History of Entity Relataionship Diagrams

Peeter Chen developed ERDs in 1976. Since then Charles Bachman and james Martin have added soem slight refinements to the basic ERD principles.

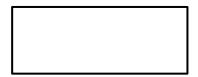
Structure of an Entity Relationship Diagram with Common ERD Notations

An entity relationship diagram is a means of visuvalizing hoe the information a system

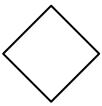
19CS2A1025 5 | P a g e

produces is elated. There are five main components of an ERD.

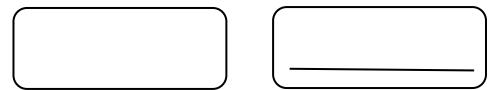
<u>Entities:</u> which are represented by rectangles. An entity is an object or concept about which you want to information. A weak entity is an entity that must defined by a foreign key relationship with another entity as it cannot be uniquely identified bybits own attributes alone. In the above diagram 9 entities can been seen



<u>Actions:</u>WHich are represented by diamond shapes, show how two entities share informatition in the database. In some cases, entities can be self-linked. For example, employees can supervise other employees. In the above diagram can the symbols are to represent relationship between two or more persons, items, etc...



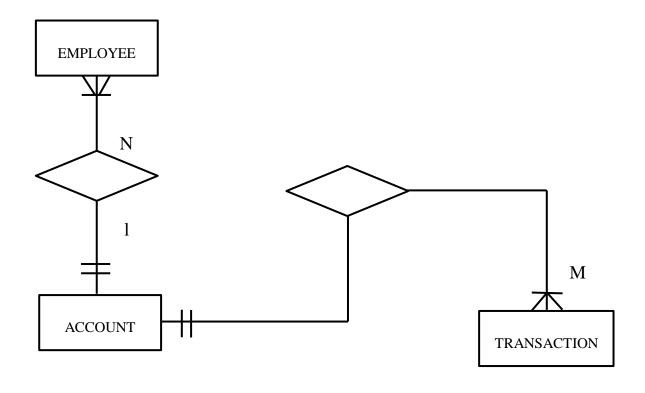
<u>Attributes:</u> Attributes ,which are represented by ovals. A ke attribute is the unique, distinguishing characteristic of the entity. The first diagram shows only the attributes of an entity where as in second diagram shows the attribute with primary key. For example, an employee's social security number might be the employee's key attributes.



<u>Connecting lines:</u> solid line sthat connect attributes to show the relationships of entities in the ER Diagram

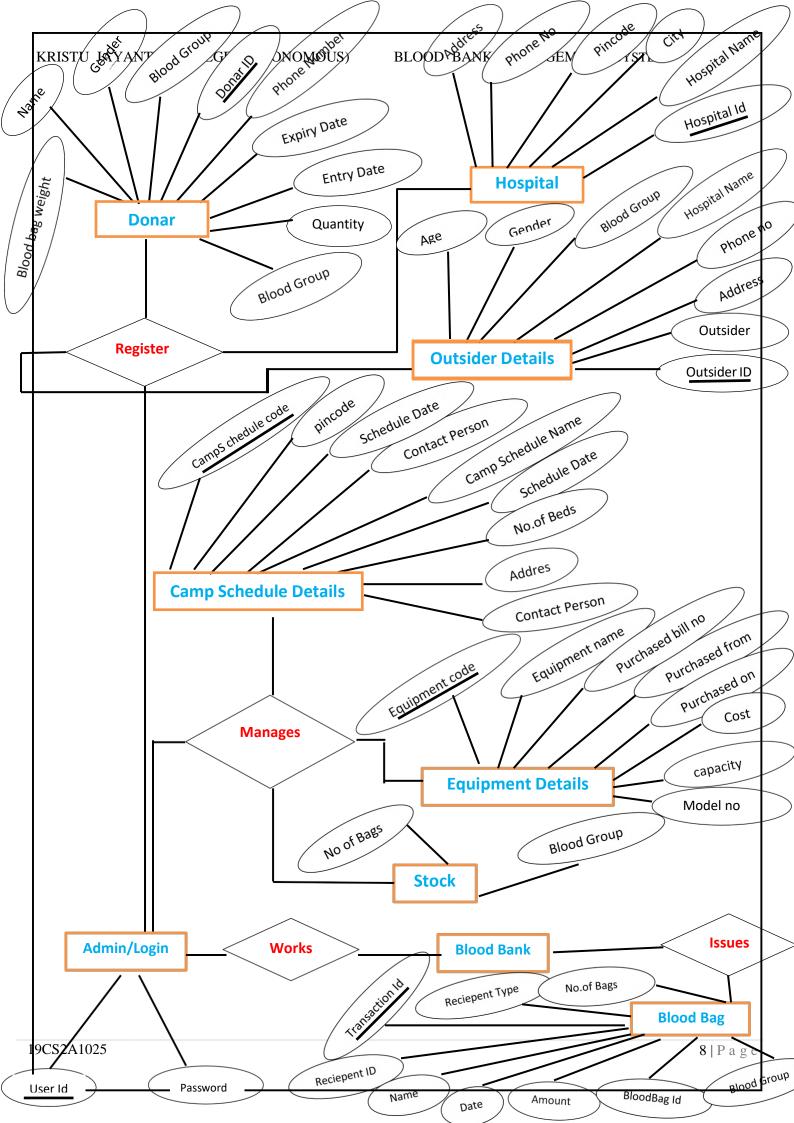
<u>Cardinality:</u>Specifies how many instances of an entity realte to one instance of another entity. Ordinally is also closely linked to cardinality. While cardinally specifies the occurences of a relationship, ordinally describes the relationship as either mandatory or optional. In other words, cardinally specifies the maximum number of relationships and ordinally specifies the absolute minimum number of relatioships.

19CS2A1025 6 | P a g e



E – R DIAGRAM FOR BLOOD BANK MANAGEMENT SYSTEM

19CS2A1025



3.2 DATA FLOW DIAGRAM (level 0 and level 1)

The Data Flow Diagrams (DFDs) are used for structure analysis and design. DFDs show the flow of data from external entities into the system. DFDs also show how the data moves and are transformed from one process to another, as well as its logical storage. The following symbols are used within DFDs.

A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system, modelling its process aspects. A DFD is often used as a preliminary step to create an overview of the system, which can later be elaborated. DFDs can also be used for the visualization of data processing (structured design).

A DFD shows what kind of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It does not show information about the timing of process or information about whether processes will operate in sequence or in parallel.

PHYSICAL VS LOGICAL DFD

A logical DFD captures the data flows that are necessary for a system to operate. It describes the processes that are undertaken, the data required and produced by each process, and the stores needed to hold the data. On the other hand, a physical DFD shows how the system is actually implemented, either at the moment (Current Physical DFD), or how the designer intends it to be in the future (Required Physical DFD).

Thus, a Physical DFD may be used to describe the set of data items that appear on each piece of paper that move around an office, and the fact that a particular set of pieces of paper are stored together in a filing cabinet. It is quite possible that a Physical DFD will include references to data that are duplicated, or redundant, and that the data stores, if implemented as a set of database tables, would constitute an un-normalized (or de-normalized) relational database. In contrast, a Logical DFD attempts to capture the data flow aspects of a system in a form that has neither redundancy nor duplication.

DATA FLOW SYMBOLS

Entities: which are represented by rectangles. An entity is an object or concept about which you want to store information. A weak entity is an entity that must defines by a foreign key relationship with another entity as it cannot be uniquely identified by its own attributes alone.

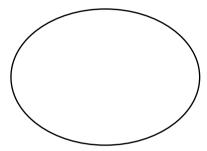
Source/Sink: Represented by rectangles in the diagram. Sources and sinks are external entities

9CS2A1025 9 | P a g e

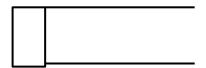
which are sources or destinations of data, respectively.



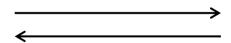
<u>Process:</u> Represents by circles in the diagram. Processes are responsible for manipulating the data. They take data as input and output an altered version of the data.



<u>Data Store</u>: Represented by a segmented rectangle with an open end on the right. Data Store are both electronic and physical locations of data. Example include databases, directories, files, and even filing cabinets and stacks of paper.



<u>Data Flow:</u> Represented by a unidirectional arrow. Data flows show how data is moved through the system. Data flows are labeled with a description of the data that is being passed through the system. Data flows are labeled with a description of the data that is being passed through it.



LEVEL-0 DFD

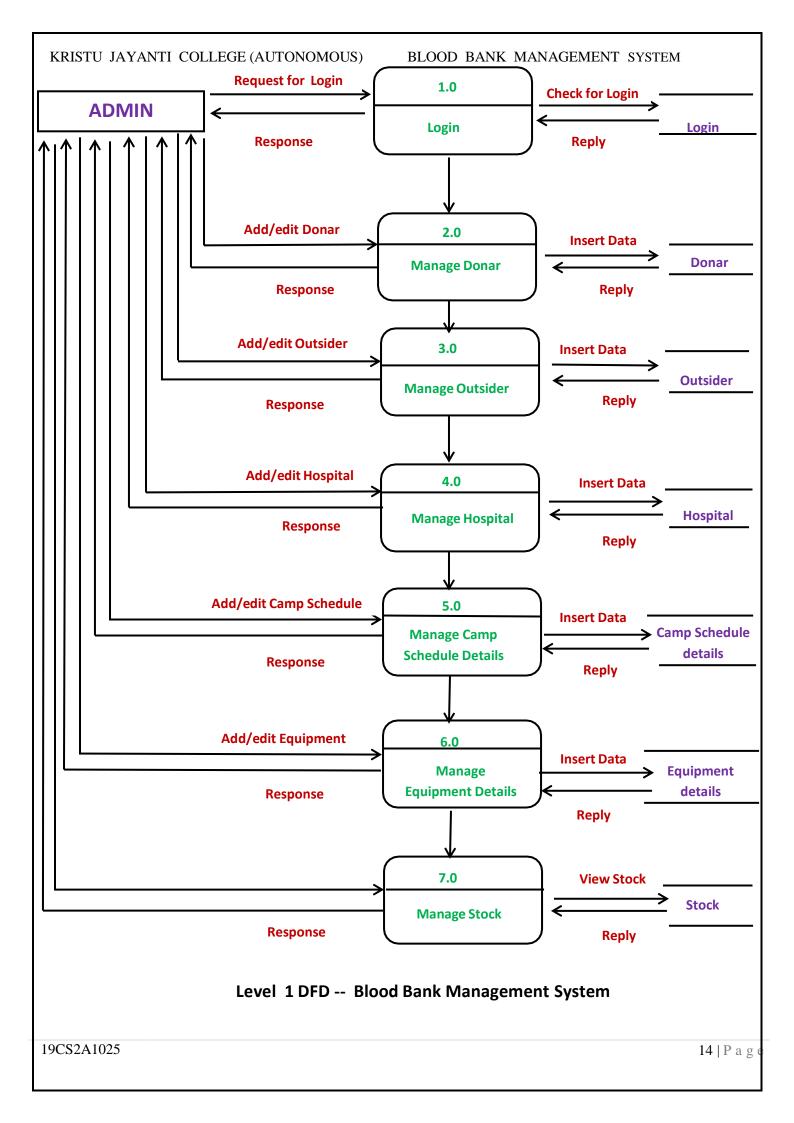
A level-0 DFD is the most basic form of DFD. It aims to show how the entire system works at a glance. There is only one process in the system and all the data flows either into or out of this process. Level-0 DFD's demonstrates the interactions between the process and external entities. They A level-0 DFD is the most basic form of DFD. It aims to show how the entire system works at a glance. There is only one process in the system and all the data flows either into or out of this process. Level-0 DFD's demonstrates the interactions between the process and external entities. Theydo not contain Data Stores.

9CS2A1025 11 | P a g e

LEVEL-1 DFD

Level 1 DFD's aim is to give an overview of the full system. They look at the system in more detail. Major processes are broken down into sub-processes. Level 1 DFD's also identifies data storesthat are used by the major processes. When constructing a Level 1 DFD, we must start by examining the Context Level DFD. We must break up the single process into its sub-processes and then pick outthe data stores from the text we are given and include them in our DFD. Like the Context Level DFD's, all entities, data stores and processes must be labelled. We must also state any assumptions made from the text.

9CS2A1025 13 | P a g e



3.3 GANTT CHART:

A Gantt chart is a type of a bar chart, devised by Henry Gantt in the 1910s, that illustrates a project schedule. Gantt charts ilustarte the start and finish dates of the terminal elements and summary elements of a project. Terminal elements and summary elements compraise the work breakdown structure of the project. Modern Gantt charts also show the dependency (i.e, precedure network) relationship between activities.

HISTORICAL DEVELOPMENT:

The first known tool of thiss type was developed in 1896 by Karol Adamesque, who called it a Harmon gram. Adamesque did not publish his cahrt until 1913, however, and only in polish, which limited both is adoption and recognition of the authorship. The chart is anmed after Henry Gantt(1861-1919), who designed hios chart around the years 1910-1915. One of the first major applications of Gantt charts was by united states during world war 1, at the instigition of General William Croath in the 1980s, personal compiuters allowed widespread creation of the complex and eleborate Gantt charts. The first desktop applications were intended for mainly project managers and project schedulers. With the advent of the internet and increased collaboration over networks at the end of the 1990s. Gantt charts became a common feature of web-based applications, including collaborative groupware.

GANTT CHART BENIFITS:

- <u>Clarity:</u> One of the biggest benifits of a Gantt chart is the tool's ability to boil down multiple tasks and timeless into single documet. Stakeholders troughout an organigation can easily understand where teams are ina process while grasping the ways in which independent elements come together toward project completition.
- <u>Commumnation:</u> Teams can use Gantt charts to replace metings and enhance other status updates. Simply calrifying chart positions offfer an easy, visual method to help team members understand task programs.
- <u>Motivatioan:</u> Some teams or team members become more efffective when faced with a form of external motivation. Gantt charts offer teams the ability to focus work at the front of a task timeline, or at the tail end of a chart segment. Both types of team members can find Gantt charts meningful as they plug their own work habits into the overall project schedule.
- <u>Coordination:</u> For project management and resource schedulers, the benifits of a
 Gantt Chart include the ability to sequence events and reduce the potential for
 overburdening team members Some project management even use combinations of
 charts to rea down projects into more manageable sets of tasks.
- <u>Creativity</u>: Sometiems ,a lack of time resources forces project manajers and teams to find creative solutions. Seeing how individual tasks intervine on Ganttt charts often encourages new partnerships and collaboration that mingle not have evloved under traditional task assignement systems.

19CS2A1025 15 | P a g e

- <u>Time Management:</u> Most managers egard scheduling as one of the major benefits of Ganttt charts in a creative environment. Helping teams understand the overall impact of project dealys can faster stronger collaboration while encouraging better task organization.
- **Flexibility:** Whether you use Excel to generate Gantt charts or you load tasks into more precise chart generator, the ability to issue new charts as your project evolves lets you react to unexcepted cahnges in project scope or timeline. While revising your project scope or timeline. While revising your project schedule too frequently can eliminate some of the other bebefits of Gantt charts, offeiring a realistic view of a project can help team members recover from setbacks or adjust to other changes.
- Managebility: For project managers handling complex assignemnts, like software
 publishing or event planning, the benefits for maximum eficiency. For instance, while
 one team member waits on the outcome of three other tasks before starting a
 crucial piece of the assignmennt, he or she can perform other project
 tasks, Visuvalising resource usage during projects allows managers to make better use
 of people, places, and things.
- Efficiency: Another on of the benefits of the Gantt charts is the ability for teams members to leverage each other's deadlines for maximum efficiency. For instance, while one team member waits on the outcome of three other tasks before starting a crucial piece of the assignment, he or she can perform other project tasks. Visuvalizing resource usage during projects allows managers to make better use fo people, places and things.
- <u>Accountability:</u> When project team faces major organizational change, documenting
 efffort and outcomes becomes crucial to career success. Using Gantt charts during
 critical projects allows both project manajers and participants to track team
 progress, highlights both big wins and major failures during professional review
 periods; team members who frequently exceed expectations can leaverge this
 documentation into large raises or bonuses.

Gantt chart Importance:

The prijects summary and terminal elements.which combine to form the project's internal structure, are shown on the Gantt chart, many charts will also depict the precedence rankings and dependencies.] of various tasks within the project. The charts can illustrate the start and finish project terminal elements in project management. IT can also shown summary elements and terminal dependencies. The smallest task tracked as part of the project effort is known as terminal element. Gantt chart represents the tasks in most modern project scheduling packages. However other management applications use simpler communicton tools such as message boards, to-do lists and simple scheduling etc. therefore, they do not use Gantt charts as heavily.

The way to create this chart begins by determining and listing the necessary activities. Net, sketch out

The way to create this chart begins by determining and listing the necessary activities. Net, sketch out how you except the chart to loook. List which items depend on others and what activities take place when. For each activity. Iist how many man hours it will requuire, and who is

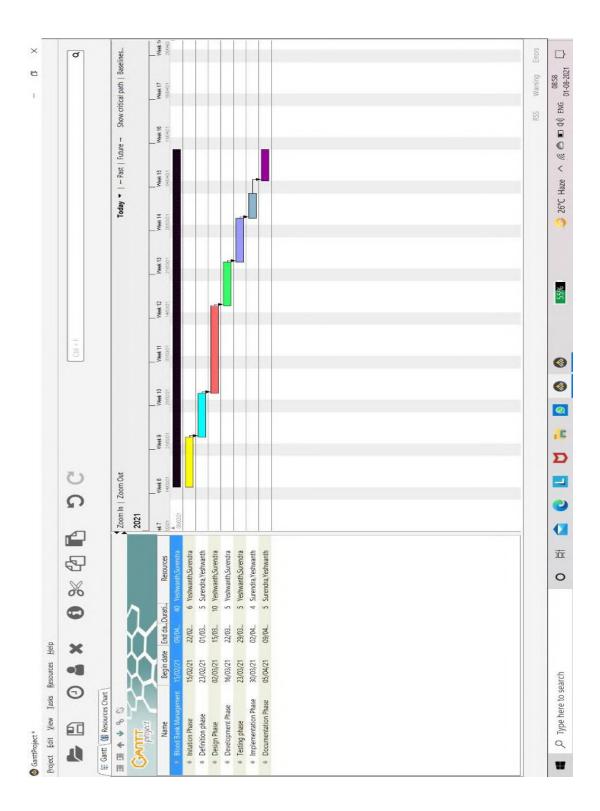
19CS2A1025 16 | P a g e

KRISTU JAYANTI COLLEGE (AUTONOMOUS)

SYSTEM

responsible.Lastly,determine the throughput time.

This technique's primary advantageis its good graphical overview that is easy to understand for naearly all project participants and stakeholders. Its primary disadvatage is its limited applicability for many projects, since projects are often more complex that can be effectively communicated with this chart.



19CS2A1025 17 | P a g e

3.4 INPUT OUTPUT DESIGN

```
Input/Output Desig
```

Login

```
Imports System.Data
Imports System.Data.SqlClient
Public Class Login
    Private Sub Form2 Load(sender As Object, e As EventArgs) Handles
MyBase.Load
    End Sub
Private Sub Button2 Click(sender As Object, e As EventArgs) Handles
Button2.Click
        Application.Exit()
 End Sub
Private Sub Button1 Click(sender As Object, e As EventArgs) Handles
Button1.Click
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Dim cmd As SqlCommand = New SqlCommand("select * from blood
where userID='" + TextBox1.Text + "'and password='" + TextBox2.Text
+ "'", con)
        Dim adapter As SqlDataAdapter = New SqlDataAdapter(cmd)
        Dim dt As DataTable = New DataTable()
        adapter.Fill(dt)
        If (dt.Rows.Count > 0) Then
            MessageBox.Show("login sucess", "Information",
MessageBoxButtons.OK, MessageBoxIcon.Information)
            Dashboard.Show()
            Me.Hide()
        Else
            MessageBox.Show("login failed", "Information",
MessageBoxButtons.OK, MessageBoxIcon.Information)
        End If
    End Sub
End Class
```

Add New Donor

```
Imports System.Data
Imports System.Data.SqlClient
Imports System.Text.RegularExpressions
Imports System.IO
```

19CS2A1025

```
SYSTEM
```

```
Public Class Form4
    Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
    Dim cmd As New SqlCommand
    Dim adpter As New SqlDataAdapter
    Dim data As New DataSet()
    Sub autoId()
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            con.Open()
            Dim sql As String = "select Top 1 BloodGroupID from"
[dbo].[donordetails]order by
                              BloodGroupID desc"
            cmd = New SqlCommand(sql, con)
            Dim adapter As New SqlDataAdapter(cmd)
            Dim ds As New DataSet
            adapter.Fill(ds)
            If (ds.Tables(0).Rows.Count > 0) Then
                Dim tmp id =
ds.Tables(0).Rows(0)("BloodGroupID").ToString().Substring(1, 2)
                Dim new id As Integer = CInt(tmp id) + 1
                idtext.Text = "D" & new id.ToString("00")
            Else
                idtext.Text = "D01"
            End If
        Catch ex As Exception
            MsgBox(ex.Message)
        Finally
            con.Close()
        End Try
    End Sub
    Sub autoId1()
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            con.Open()
            Dim sql As String = "select Top 1 ID from
[dbo].[donordetails]order by
                               ID desc"
            cmd = New SqlCommand(sql, con)
            Dim adapter As New SqlDataAdapter(cmd)
            Dim ds As New DataSet
```

```
adapter.Fill(ds)
            If (ds.Tables(0).Rows.Count > 0) Then
                Dim tmp id =
ds.Tables(0).Rows(0)("ID").ToString().Substring(1, 2)
                Dim new id As Integer = CInt(tmp id) + 1
                TextBox1.Text = "B" & new id.ToString("00")
            Else
                TextBox1.Text = "B01"
            End If
        Catch ex As Exception
            MsgBox(ex.Message)
        Finally
            con.Close()
        End Try
    End Sub
    Sub evaluate()
        If txtnumber.Text.Length < 10 Then</pre>
            MsgBox("Phone numbers must be at least 10 digits long")
            txtnumber.Focus()
        End If
        If txtnumber.Text.Length > 10 Then
            MsgBox("Phone numbers must be of a maximum of 10 digits
long")
            txtnumber.Focus()
        End If
    End Sub
    Private Sub Form4 Load(sender As Object, e As EventArgs) Handles
MyBase.Load
        autoId1()
        autoId()
    End Sub
    Private Sub TextBox4 TextChanged(sender As Object, e As
KeyPressEventArgs) Handles txtnumber.KeyPress
        If txtnumber.Text.Length > 9 And txtnumber.Text.Length < 10</pre>
Then
            If e.KeyChar <> ControlChars.Back Then
                e.Handled = True
                MessageBox.Show("phonr No. should be 10numbers")
            End If
        End If
    End Sub
    Private Sub Button1 Click(sender As Object, e As EventArgs)
Handles Button1.Click
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
```

19CS2A1025 20 | P a g e

```
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            Dim cmd As SqlCommand = New SqlCommand("INSERT INTO
[dbo].[donordetails]([ID],[Name],[number],[Gender],[BloodGroup],[Add
ress],[BloodGroupID], [EntryDate],[ExpiryDate])values('" +
idtext.Text + "','" + txtname.Text + "','" + txtnumber.Text + "','"
+ txtgender.Text + "','" + txtblood.Text + "','" + txtaddress.Text +
"','" + TextBox1.Text + "','" + entry.Text + "','" + expiry.Text +
"')", con)
            con.Open()
            cmd.ExecuteNonQuery()
            con.Close()
            txtaddress.Clear()
            txtname.Clear()
            txtgender.ResetText()
            txtblood.ResetText()
            txtnumber.Clear()
            autoId()
            autoId1()
            MessageBox.Show("Data saved successfully")
        Catch ex As Exception
            MessageBox.Show(ex.Message)
        End Try
    End Sub
    Private Sub Button3_Click(sender As Object, e As EventArgs)
Handles Button3.Click
        Dashboard.Show()
       Me.Hide()
    End Sub
    Private Sub txtfathername TextChanged(sender As Object, e As
KeyPressEventArgs)
        If Not Char.IsLetter(e.KeyChar) And Not e.KeyChar =
Chr(Keys.Delete) And Not e.KeyChar = Chr(Keys.Back) And Not
e.KeyChar = Chr(Keys.Space) Then
            e.Handled = True
            MessageBox.Show("only letters are accepted")
        End If
    End Sub
    Private Sub txtname TextChanged(sender As Object, e As
KeyPressEventArgs) Handles txtname.KeyPress
        If Not Char.IsLetter(e.KeyChar) And Not e.KeyChar =
Chr(Keys.Delete) And Not e.KeyChar = Chr(Keys.Back) And Not
e.KeyChar = Chr(Keys.Space) Then
            e.Handled = True
            MessageBox.Show("only letters are accepted")
        End If
    End Sub
    Private Sub txtmothername TextChanged(sender As Object, e As
```

19CS2A1025

```
SYSTEM
```

```
KeyPressEventArgs)
        If Not Char.IsLetter(e.KeyChar) And Not e.KeyChar =
Chr(Keys.Delete) And Not e.KeyChar = Chr(Keys.Back) And Not
e.KeyChar = Chr(Keys.Space) Then
            e.Handled = True
            MessageBox.Show("only letters are accepted")
        End If
    End Sub
    Private Sub idtext TextChanged(sender As Object, e As
KeyPressEventArgs) Handles idtext.KeyPress
        If Not Char.IsNumber(e.KeyChar) And Not e.KeyChar =
Chr(Keys.Delete) And Not e.KeyChar = Chr(Keys.Back) And Not
e.KeyChar = Chr(Keys.Space) Then
            e.Handled = True
            MessageBox.Show("only numbrers are accepted")
        End If
    End Sub
    Private Sub Button4 Click 3(sender As Object, e As EventArgs)
Handles Button4.Click
        expiry.Value = DateTime.Now.AddDays(Integer.Parse(43))
    End Sub
End Class
```

Search and Edit Donor

```
Imports System.Data.SqlClient
Imports System.Data.DataTable
Public Class Edit
    Dim cmd As New SqlCommand
    Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
    Private Sub Form5 Load(sender As Object, e As EventArgs) Handles
MyBase.Load
        FilterData("")
        getdata()
    End Sub
    Sub getdata()
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            con.Open()
            Dim sql As String = "select * from [dbo].[donordetails]
            cmd = New SqlCommand(sql, con)
            Dim adapter As New SqlDataAdapter(cmd)
```

19CS2A1025 22 | P a g e

```
Dim ds As New DataSet
            adapter.Fill(ds)
            DataGridView1.DataSource = ds.Tables(0)
        Catch ex As Exception
            MsgBox(ex.Message)
        Finally
            con.Close()
        End Try
    End Sub
    Private Sub Button1 Click(sender As Object, e As EventArgs)
Handles Button1.Click
        Dashboard.Show()
        Me.Hide()
    End Sub
    Private Sub Button4 Click(sender As Object, e As EventArgs)
Handles Button4.Click
        Try
            Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
            Dim cmd As SqlCommand = New SqlCommand("delete from
[dbo].[donordetails] where ID='" + TextBox1.Text + "'", con)
            con.Open()
            cmd.ExecuteNonQuery()
            MessageBox.Show("data deleted successfully")
            con.Close()
        Catch ex As Exception
            MessageBox.Show(ex.Message)
        End Try
    End Sub
    Private Sub Button5_Click(sender As Object, e As EventArgs)
Handles Button5.Click
        Dim conn As New SqlConnection
        conn.ConnectionString = ("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Dim cmd As SqlCommand = New SqlCommand("update
[dbo].[donordetails] set [Name]='" + TextBox3.Text + "',[number]='"
+ TextBox7.Text + "',[Gender]='" + TextBox8.Text +
"',[BloodGroup]='" + TextBox10.Text + "',[Address]='" +
RichTextBox1.Text + "',[BloodGroupID]='" + TextBox2.Text +
"',[EntryDate]= '" + DateTimePicker1.Text + "', [ExpiryDate] = '" +
DateTimePicker2.Text + "'", conn)
        conn.Open()
```

19CS2A1025 23 | P a g e

```
cmd.ExecuteNonQuery()
        MessageBox.Show("data updated succeessfully", "informaton",
MessageBoxButtons.OK, MessageBoxIcon.Information)
    End Sub
    Public Sub FilterData(valueTOsearch As String)
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Dim searchquery As String = "select * from
[dbo].[donordetails] where
concat(Id,Name,Gender,BloodGroup,number)like '%" & valueTOsearch &
"%'"
        Dim command As New SqlCommand(searchquery, con)
        Dim adapter As New SqlDataAdapter(command)
        Dim table As New DataTable()
        adapter.Fill(table)
        DataGridView1.DataSource = table
    End Sub
    Private Sub Button3 Click 1(sender As Object, e As EventArgs)
Handles Button3.Click
        FilterData(TextBox1.Text)
    End Sub
    Private Sub DataGridView1 CellContentClick(sender As Object, e
As DataGridViewCellEventArgs) Handles DataGridView1.CellContentClick
       Try
            Dim index As Integer
            index = e.RowIndex
            Dim selectedrow As DataGridViewRow
            selectedrow = DataGridView1.Rows(index)
            TextBox4.Text = selectedrow.Cells(0).Value.ToString()
            TextBox3.Text = selectedrow.Cells(1).Value.ToString()
            TextBox7.Text = selectedrow.Cells(2).Value.ToString()
            TextBox8.Text = selectedrow.Cells(3).Value.ToString()
            DateTimePicker1.Value =
selectedrow.Cells(7).Value.ToString()
            DateTimePicker2.Value =
selectedrow.Cells(8).Value.ToString()
            TextBox10.Text = selectedrow.Cells(4).Value.ToString()
            TextBox2.Text = selectedrow.Cells(6).Value.ToString()
            RichTextBox1.Text =
selectedrow.Cells(5).Value.ToString()
        Catch ex As Exception
            MessageBox.Show(ex.Message)
        End Try
    End Sub
End Class
```

Hospital Details

19CS2A1025 24 | P a g e

```
Imports System.Data
Imports System.Data.SqlClient
Imports System.Text.RegularExpressions
Imports System.IO
Public Class Hospital Details
    Dim con str As String = "Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True"
    Dim con As New SqlConnection()
    Dim data As New DataSet()
    Dim cmd As New SqlCommand
    Dim adpter As New SqlDataAdapter
    Sub autoId()
        Using con = New SqlConnection(con str)
            Try
                con.Open()
                Dim sql As String = "select Top 1 HospitalId from
Hospital order by HospitalId desc"
                cmd = New SqlCommand(sql, con)
                Dim adapter As New SqlDataAdapter(cmd)
                Dim ds As New DataSet
                adapter.Fill(ds)
                If (ds.Tables(0).Rows.Count > 0) Then
                    Dim tmp id =
ds.Tables(0).Rows(0)("HospitalId").ToString().Substring(2, 2)
                    Dim new id As Integer = CInt(tmp id) + 1
                    TextBox1.Text = "HS" & new id.ToString("00")
                Flse
                    TextBox1.Text = "HS01"
                End If
            Catch ex As Exception
                MsgBox(ex.Message)
            Finally
                con.Close()
            End Try
        End Using
    End Sub
    Sub getdata()
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            con.Open()
            Dim sql As String = "select * from Hospital "
            cmd = New SqlCommand(sql, con)
            Dim adapter As New SqlDataAdapter(cmd)
```

19CS2A1025 25 | P a g e

```
Dim ds As New DataSet
            adapter.Fill(ds)
            DataGridView1.DataSource = ds.Tables(0)
        Catch ex As Exception
            MsgBox(ex.Message)
        Finally
            con.Close()
        End Try
    End Sub
    Private Sub Hospital Details Load(sender As Object, e As
EventArgs) Handles MyBase.Load
        FilterData("")
        autoId()
        DataGridView1.EnableHeadersVisualStyles = False
        DataGridView1.ColumnHeadersDefaultCellStyle.ForeColor =
Color.Orange
    End Sub
    Private Sub DataGridView1 CellContentClick(sender As Object, e
As DataGridViewCellEventArgs) Handles DataGridView1.CellContentClick
        Dim index As Integer
        index = e.RowIndex
        Dim selectedrow As DataGridViewRow
        selectedrow = DataGridView1.Rows(index)
        TextBox1.Text = selectedrow.Cells(0).Value.ToString()
        TextBox2.Text = selectedrow.Cells(1).Value.ToString()
        TextBox3.Text = selectedrow.Cells(2).Value.ToString()
        TextBox4.Text = selectedrow.Cells(3).Value.ToString()
        TextBox5.Text = selectedrow.Cells(4).Value.ToString()
        RichTextBox1.Text = selectedrow.Cells(5).Value.ToString()
    Private Sub Button1 Click(sender As Object, e As EventArgs)
Handles Button1.Click
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSOLLocalDB;AttachDbFilename=C:\Users\veshu\source
\repos\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            Dim cmd As SqlCommand = New SqlCommand("INSERT INTO
[Hospital]([HospitalId],[HospitalName],[City], [Pincode],[PhoneNO],
[Address])values('" + TextBox1.Text + "','" + TextBox2.Text + "','" + TextBox3.Text + "','" + RichTextBox1.Text
+ "')", con)
            con.Open()
            cmd.ExecuteNonQuery()
            TextBox2.Clear()
            TextBox3.Clear()
            TextBox4.Clear()
            TextBox5.Clear()
            RichTextBox1.ResetText()
```

19CS2A1025 26 | P a g e

```
autoId()
            getdata()
        Catch ex As Exception
            MessageBox.Show(ex.Message)
        End Try
    End Sub
    Private Sub Button4 Click(sender As Object, e As EventArgs)
Handles Button4.Click
        Dashboard.Show()
        Me.Hide()
    End Sub
    Private Sub Button5 Click(sender As Object, e As EventArgs)
Handles Button5.Click
        TextBox2.Clear()
        TextBox3.Clear()
        TextBox4.Clear()
        TextBox5.Clear()
        RichTextBox1.ResetText()
   End Sub
    Private Sub Button6 Click(sender As Object, e As EventArgs)
Handles Button6.Click
        FilterData(TextBox6.Text)
    End Sub
    Public Sub FilterData(valueTOsearch As String)
        Dim connection As New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Dim searchquery As String = "select * from
[dbo].[Hospital] where concat([HospitalId],[HospitalName],[City],
[Pincode] ,[PhoneNO], [Address] )like '%" & valueTOsearch & "%'"
        Dim command As New SqlCommand(searchquery, connection)
        Dim adapter As New SqlDataAdapter(command)
        Dim table As New DataTable()
        adapter.Fill(table)
        DataGridView1.DataSource = table
    End Sub
    Private Sub TextBox5 TextChanged(sender As Object, e As
KeyPressEventArgs) Handles TextBox5.KeyPress
        If TextBox5.Text.Length > 9 And TextBox5.Text.Length < 10</pre>
Then
            If e.KeyChar <> ControlChars.Back Then
                e.Handled = True
                MessageBox.Show("phonr No. should be 10numbers")
            End If
        End If
    End Sub
    Private Sub TextBox2 TextChanged(sender As Object, e As
KeyPressEventArgs) Handles TextBox2.KeyPress
```

19CS2A1025 27 | P a g e

```
If Not Char.IsLetter(e.KeyChar) And Not e.KeyChar =
Chr(Keys.Delete) And Not e.KeyChar = Chr(Keys.Back) And Not
e.KeyChar = Chr(Keys.Space) Then
            e.Handled = True
            MessageBox.Show("only letters are accepted")
    End Sub
    Private Sub Button3 Click(sender As Object, e As EventArgs)
Handles Button3.Click
        Dim conn As New SqlConnection
        Try
            conn.ConnectionString = ("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
            Dim cmd As SqlCommand = New SqlCommand("update
[Hospital] set [HospitalName]='" + TextBox2.Text + "',[City]='" +
TextBox3.Text + "',[Pincode]='" + TextBox4.Text + "',[PhoneNO]='" +
TextBox5.Text + "',[Address]='" + RichTextBox1.Text + "' ", conn)
            conn.Open()
            cmd.ExecuteNonQuery()
            MessageBox.Show("data updated succeessfully",
"information", MessageBoxButtons.OK, MessageBoxIcon.Information)
        Catch ex As Exception
            MessageBox.Show(ex.Message)
        End Try
    End Sub
    Private Sub Button2 Click(sender As Object, e As EventArgs)
Handles Button2.Click
        Try
            Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
            Dim cmd As SqlCommand = New SqlCommand("delete from
[dbo].[Hospital] where HospitalId='" + TextBox6.Text + "'", con)
            con.Open()
            cmd.ExecuteNonQuery()
            MessageBox.Show("data deleted successfully")
            con.Close()
        Catch ex As Exception
            MessageBox.Show(ex.Message)
        End Try
    End Sub
    Private Sub Button8 Click(sender As Object, e As EventArgs)
Handles Button8.Click
        Dim index As Integer
        index = DataGridView1.CurrentCell.RowIndex
        DataGridView1.Rows.RemoveAt(index)
```

19CS2A1025 28 | P a g e

```
End Sub
Private Sub Button9_Click(sender As Object, e As EventArgs)
Handles Button9.Click
    autoId()
    TextBox2.Clear()
    TextBox3.Clear()
    TextBox4.Clear()
    TextBox5.Clear()
    RichTextBox1.ResetText()
    getdata()
End Sub
```

Outsider details

```
Imports System.Data
Imports System.Data.SqlClient
Imports System.Data.DataTable
Public Class Outsider
    Dim con str As String = "Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True"
    Dim con As New SqlConnection()
    Dim data As New DataSet()
    Dim cmd As New SqlCommand
    Dim adpter As New SqlDataAdapter
    Sub autoId()
        Using con = New SqlConnection(con str)
            Try
                con.Open()
                Dim sql As String = "select Top 1 Outsider ID from
[dbo].[Outsider Detais] order by Outsider ID desc"
                cmd = New SqlCommand(sql, con)
                Dim adapter As New SqlDataAdapter(cmd)
                Dim ds As New DataSet
                adapter.Fill(ds)
                If (ds.Tables(0).Rows.Count > 0) Then
                    Dim tmp id =
ds.Tables(0).Rows(0)("Outsider_ID").ToString().Substring(3, 2)
                    Dim new id As Integer = CInt(tmp id) + 1
                    txtid.Text = "OUT" & new id.ToString("00")
                Else
                    txtid.Text = "OUT01"
                End If
            Catch ex As Exception
                MsgBox(ex.Message)
            Finally
```

19CS2A1025 29 | P a g e

```
con.Close()
            End Try
        End Using
    End Sub
    Sub getdata()
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            con.Open()
            Dim sql As String = "select * from
[dbo].[Outsider Detais] "
            cmd = New SqlCommand(sql, con)
            Dim adapter As New SqlDataAdapter(cmd)
            Dim ds As New DataSet
            adapter.Fill(ds)
            DataGridView1.DataSource = ds.Tables(0)
        Catch ex As Exception
            MsgBox(ex.Message)
        Finally
            con.Close()
        End Try
    End Sub
    Public Sub FilterData(valueTOsearch As String)
        Dim connection As New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Dim searchquery As String = "select * from
[dbo].[Outsider Detais] where
concat(Outsider ID,Outsider Name,Address,Age
,Phone_No,Hospital_Name,BloodGroup,Gender )like '%" & valueTOsearch
& "%'"
        Dim command As New SqlCommand(searchquery, connection)
        Dim adapter As New SqlDataAdapter(command)
        Dim table As New DataTable()
        adapter.Fill(table)
        DataGridView1.DataSource = table
    End Sub
    Private Sub Outsider Load(sender As Object, e As EventArgs)
Handles MyBase.Load
        autoId()
        FilterData("")
    End Sub
    Private Sub Button1 Click(sender As Object, e As EventArgs)
Handles Button1.Click
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
```

19CS2A1025 30 | P a g e

```
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            Dim cmd As SqlCommand = New SqlCommand("INSERT INTO
[dbo].[Outsider_Detais](Outsider_ID,Outsider_Name,Address,Age
,Phone_No,Hospital_Name,BloodGroup,Gender)values('" + txtid.Text +
"','" + txtname.Text + "','" + RichTextBox1.Text + "','" +
txtage.Text + "','" + Textnumber.Text + "','" + Texthospital.Text +
"','" + combogroup.Text + "','" + combogender.Text + "')", con)
            con.Open()
            cmd.ExecuteNonQuery()
            txtname.Clear()
            RichTextBox1.ResetText()
            txtage.Clear()
            Texthospital.Clear()
            Textnumber.Clear()
            combogroup.ResetText()
            combogender.ResetText()
            autoId()
            getdata()
            MessageBox.Show("Data Saved Successfully")
        Catch ex As Exception
            MessageBox.Show(ex.Message)
        End Try
    End Sub
    Private Sub Button4_Click(sender As Object, e As EventArgs)
Handles Button4.Click
        FilterData(TextBox1.Text)
    End Sub
    Private Sub Button2 Click(sender As Object, e As EventArgs)
Handles Button2.Click
        Dim conn As New SqlConnection
            conn.ConnectionString = ("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
            Dim cmd As SqlCommand = New SqlCommand("update
[dbo].[Outsider Detais] set Outsider Name='" + txtname.Text + "',
Address='" + RichTextBox1.Text + "', Age ='" + txtage.Text +
"',[Phone_No]='" + Textnumber.Text + "', Hospital_Name='" +
Texthospital.Text + "', BloodGroup='" + combogroup.Text + "',
Gender='" + combogender.Text + "'", conn)
            conn.Open()
            cmd.ExecuteNonQuery()
            MessageBox.Show("data updated succeessfully",
"information", MessageBoxButtons.OK, MessageBoxIcon.Information)
        Catch ex As Exception
            MessageBox.Show(ex.Message)
```

19CS2A1025 31 | P a g e

```
End Try
    End Sub
    Private Sub Button3 Click(sender As Object, e As EventArgs)
Handles Button3.Click
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Dim cmd As SqlCommand = New SqlCommand("delete from
[dbo].[Outsider Detais] where Outsider ID='" + TextBox1.Text + "'",
con)
        con.Open()
        cmd.ExecuteNonQuery()
       MessageBox.Show("data deleted successfully")
        con.Close()
    End Sub
    Private Sub DataGridView1 CellContentClick(sender As Object, e
As DataGridViewCellEventArgs) Handles DataGridView1.CellContentClick
        Dim index As Integer
        index = e.RowIndex
        Dim selectedrow As DataGridViewRow
        selectedrow = DataGridView1.Rows(index)
        txtid.Text = selectedrow.Cells(0).Value.ToString()
        txtname.Text = selectedrow.Cells(1).Value.ToString()
        RichTextBox1.Text = selectedrow.Cells(2).Value.ToString()
        txtage.Text = selectedrow.Cells(3).Value.ToString()
        Textnumber.Text = selectedrow.Cells(4).Value.ToString()
        Texthospital.Text = selectedrow.Cells(5).Value.ToString()
        combogroup.Text = selectedrow.Cells(6).Value.ToString()
        combogender.Text = selectedrow.Cells(7).Value.ToString()
    End Sub
    Private Sub Button5 Click(sender As Object, e As EventArgs)
Handles Button5.Click
        autoId()
        getdata()
        txtname.Clear()
        RichTextBox1.ResetText()
        txtage.Clear()
        Texthospital.Clear()
        Textnumber.Clear()
        combogroup.ResetText()
        combogender.ResetText()
    End Sub
End Class
```

Blood Bag Search

```
Imports System.Data
Imports System.Data.SqlClient
```

19CS2A1025 32 | P a g e

```
Public Class Form3
    Dim connection As New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
    Private Sub combo1()
        connection.Open()
        Dim cmd As SqlCommand = New SqlCommand("select distinct
[BloodGroupID] from [dbo].[donordetails] ", connection)
        ComboBox1.Items.Clear()
        Dim myreader As SqlDataReader = cmd.ExecuteReader
        ComboBox1.Items.Clear()
        While myreader.read()
            ComboBox1.Items.Add(myreader("BloodGroupID"))
        End While
        connection.Close()
        ComboBox1.Items.Insert(0, "")
    End Sub
    Private Sub Form3 Load(sender As Object, e As EventArgs) Handles
MyBase.Load
        combo1()
        display()
        DataGridView1.EnableHeadersVisualStyles = False
        DataGridView1.ColumnHeadersDefaultCellStyle.ForeColor =
Color.Orange
    End Sub
    Public Sub display()
        Dim connection As New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        connection.Open()
        Dim cmd1 As New SqlCommand("select
ID, Name, number, Gender, BloodGroup, Address, BloodGroupID, EntryDate, Expi
ryDate, Address from [dbo]. [donordetails] where BloodGroupID like '%"
+ ComboBox1.Text + "%'", connection)
        Dim adapter As New SqlDataAdapter
        Dim dt As New DataTable
        adapter.SelectCommand = cmd1
        dt.Clear()
        adapter.Fill(dt)
        DataGridView1.DataSource = dt
        connection.Close()
    End Sub
    Public Sub display1()
        Dim connection As New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\Database1.mdf;Integrated
Security=True")
```

19CS2A1025 33 | P a g e

```
connection.Open()
        Dim cmd1 As New SqlCommand("select
ID, Name, number, Gender, BloodGroup, Address, BloodGroupID, EntryDate, Expi
ryDate, Address from [dbo].[donordetails] where BloodGroup like '%" +
ComboBox2.Text + "%'", connection)
        Dim adapter As New SqlDataAdapter
        Dim dt As New DataTable
        adapter.SelectCommand = cmd1
        dt.Clear()
        adapter.Fill(dt)
        DataGridView1.DataSource = dt
        connection.Close()
    End Sub
    Private Sub ComboBox1 SelectedIndexChanged(sender As Object, e
As EventArgs) Handles ComboBox1.SelectedIndexChanged
        display()
    End Sub
    Private Sub ComboBox2_SelectedIndexChanged(sender As Object, e
As EventArgs) Handles ComboBox2.SelectedIndexChanged
        display1()
    End Sub
    Private Sub DataGridView1 CellContentClick(sender As Object, e
As DataGridViewCellEventArgs) Handles DataGridView1.CellContentClick
        Dim index As Integer
        index = e.RowIndex
        Dim selectedrow As DataGridViewRow
        selectedrow = DataGridView1.Rows(index)
        DateTimePicker1.Value =
selectedrow.Cells(8).Value.ToString()
    Private Sub Button1 Click(sender As Object, e As EventArgs)
Handles Button1.Click
        If DateTimePicker1.Value < DateTimePicker2.Value Then</pre>
            BunifuMaterialTextbox1.Text = "Expired"
            BunifuMaterialTextbox1.Text = "Exists"
        End If
    End Sub
End Class
```

Stock Details

```
Imports System.Data
Imports System.Data.SqlClient
Public Class Stock
    Dim con As New SqlConnection()
    Dim data As New DataSet()
    Dim cmd As New SqlCommand
    Dim adpter As New SqlDataAdapter
```

19CS2A1025 34 | P a g e

```
Private Sub Form1 Load(sender As Object, e As EventArgs) Handles
MyBase.Load
        getdata()
        DataGridView1.EnableHeadersVisualStyles = False
        DataGridView1.ColumnHeadersDefaultCellStyle.ForeColor =
Color.Orange
    End Sub
    Sub getdata()
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            con.Open()
            Dim sql As String = "select * from Stock "
            cmd = New SqlCommand(sql, con)
            Dim adapter As New SqlDataAdapter(cmd)
            Dim ds As New DataSet
            adapter.Fill(ds)
            DataGridView1.DataSource = ds.Tables(0)
        Catch ex As Exception
            MsgBox(ex.Message)
        Finally
            con.Close()
        End Try
    End Sub
End Class
```

Hospital Transaction

```
Imports System.Data
Imports System.Data.SqlClient
Public Class Transaction
    Dim con str As String = "Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf; Integrated
Security=True"
    Dim con As New SqlConnection()
    Dim data As New DataSet()
    Dim cmd As New SqlCommand
    Dim adpter As New SqlDataAdapter
    Sub autoId()
        Using con = New SqlConnection(con str)
            con.Open()
            Dim sql As String = "select Top 1 TransactionId from
[dbo].[Transaction] order by TransactionId desc"
            cmd = New SqlCommand(sql, con)
            Dim adapter As New SqlDataAdapter(cmd)
            Dim ds As New DataSet
```

19CS2A1025 35 | P a g e

```
adapter.Fill(ds)
            If (ds.Tables(0).Rows.Count > 0) Then
                Dim tmp id =
ds.Tables(0).Rows(0)("TransactionId").ToString().Substring(3, 2)
                Dim new id As Integer = CInt(tmp id) + 1
                TextBox6.Text = "TRB" & new id.ToString("00")
                TextBox6.Text = "TRB01"
            End If
            con.Close()
        End Using
    End Sub
    Private Sub combo1()
        Dim connection As New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        connection.Open()
        Dim cmd As SqlCommand = New SqlCommand("select distinct
HospitalId from Hospital ", connection)
        ComboBox1.Items.Clear()
        Dim myreader As SqlDataReader = cmd.ExecuteReader
        ComboBox1.Items.Clear()
        While myreader.Read()
            ComboBox1.Items.Add(myreader("HospitalId"))
        End While
        connection.Close()
        ComboBox1.Items.Insert(0, "")
    End Sub
    Private Sub Transaction_Load(sender As Object, e As EventArgs)
Handles MyBase.Load
        combo1()
        autoId()
    End Sub
    Private Sub Button6 Click(sender As Object, e As EventArgs)
Handles Button6.Click
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            Dim cmd As SqlCommand = New SqlCommand("INSERT INTO
[dbo].[Transaction]
([TransactionId],[RecipientType],[Name],[Date],[BloodGroup],[NoofBag
s],[Amount],[BloodBagID],[RecipentID])values('" + TextBox6.Text +
"','" + Label8.Text + "','" + TextBox1.Text + "','" +
DateTimePicker1.Text + "','" + txtblood.Text + "','" + TextBox2.Text
```

19CS2A1025 36 | P a g e

```
+ "','" + TextBox4.Text + "','" + TextBox3.Text + "','" +
ComboBox1.Text + "')", con)
            con.Open()
            cmd.ExecuteNonQuery()
            MessageBox.Show("Transaction Details Saved ")
        Catch ex As Exception
            MessageBox.Show(ex.Message)
        End Try
    End Sub
    Private Sub ComboBox1 SelectedIndexChanged(sender As Object, e
As EventArgs) Handles ComboBox1.SelectedIndexChanged
        search()
    End Sub
    Private Sub search()
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            con.Open()
            Dim strsql As String
            strsql = "select HospitalName from Hospital where
HospitalId= '" + ComboBox1.Text + "' "
            Dim cmd As SqlCommand = New SqlCommand(strsql, con)
            Dim myreader As SqlDataReader
            myreader = cmd.ExecuteReader
            myreader.Read()
            TextBox1.Text = myreader("HospitalName")
        Catch ex As Exception
            MsgBox(ex.Message)
        Finally
            con.Close()
        End Try
    End Sub
    Private Sub Button2 Click(sender As Object, e As EventArgs)
Handles Button2.Click
        Dashboard.Show()
        Me.Hide()
    End Sub
    Private Sub Button1 Click(sender As Object, e As EventArgs)
Handles Button1.Click
        TextBox1.Clear()
        TextBox2.Clear()
        TextBox3.Clear()
        TextBox4.Clear()
    End Sub
```

19CS2A1025 37 | P a g e

End Class

SYSTEM

Outsider Transaction

```
Imports System.Data
Imports System.Data.SqlClient
Public Class transaction1
    Dim con str As String = "Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True"
    Dim con As New SqlConnection()
   Dim data As New DataSet()
    Dim cmd As New SqlCommand
    Dim adpter As New SqlDataAdapter
    Private Sub Form1 Load(sender As Object, e As EventArgs) Handles
MyBase.Load
        combo1()
        autoId()
    End Sub
    Sub autoId()
        Using con = New SqlConnection(con str)
            con.Open()
            Dim sql As String = "select Top 1 TransactionId from
[dbo].[Transaction] order by TransactionId desc"
            cmd = New SqlCommand(sql, con)
            Dim adapter As New SqlDataAdapter(cmd)
            Dim ds As New DataSet
            adapter.Fill(ds)
            If (ds.Tables(0).Rows.Count > 0) Then
                Dim tmp id =
ds.Tables(0).Rows(0)("TransactionId").ToString().Substring(3, 2)
                Dim new id As Integer = CInt(tmp id) + 1
                TextBox6.Text = "TRB" & new id.ToString("00")
            Else
                TextBox6.Text = "TRB01"
            End If
            con.Close()
        End Using
    End Sub
    Private Sub combo1()
        Dim connection As New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        connection.Open()
        Dim cmd As SqlCommand = New SqlCommand("select distinct
                                                                   ID
       [dbo].[donordetails] ", connection)
from
```

```
ComboBox1.Items.Clear()
        Dim myreader As SqlDataReader = cmd.ExecuteReader
        ComboBox1.Items.Clear()
        While myreader.Read()
            ComboBox1.Items.Add(myreader("ID"))
        End While
        connection.Close()
        ComboBox1.Items.Insert(0, "")
    End Sub
    Private Sub search()
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            con.Open()
            Dim strsql As String
            strsql = "select Name from
                                             [dbo].[donordetails]
         ID= '" + ComboBox1.Text + "' "
where
            Dim cmd As SqlCommand = New SqlCommand(strsql, con)
            Dim myreader As SqlDataReader
            myreader = cmd.ExecuteReader
            myreader.Read()
            TextBox1.Text = myreader("Name")
        Catch ex As Exception
            MsgBox(ex.Message)
        Finally
            con.Close()
        End Try
    End Sub
    Private Sub Button6 Click(sender As Object, e As EventArgs)
Handles Button6.Click
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSOLLocalDB;AttachDbFilename=C:\Users\veshu\source
\repos\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            Dim cmd As SqlCommand = New SqlCommand("INSERT INTO
[dbo].[Transaction]
([TransactionId],[RecipientType],[Name],[Date],[BloodGroup],[NoofBag
s],[Amount],[BloodBagID],[RecipentID])values('" + TextBox6.Text +
"','" + Label8.Text + "','" + TextBox1.Text + "','" +
DateTimePicker1.Text + "','" + txtblood.Text + "','" + TextBox2.Text
+ "','" + TextBox4.Text + "','" + TextBox3.Text + "','" +
ComboBox1.Text + "')", con)
            con.Open()
            cmd.ExecuteNonQuery()
            MessageBox.Show("Transaction Details Saved ")
            autoId()
```

19CS2A1025 39 | P a g e

```
Catch ex As Exception
            MessageBox.Show(ex.Message)
        End Try
    End Sub
    Private Sub Button2_Click(sender As Object, e As EventArgs)
Handles Button2.Click
        Dashboard.Show()
        Me.Hide()
    End Sub
    Private Sub Button1 Click(sender As Object, e As EventArgs)
Handles Button1.Click
        TextBox1.Clear()
    End Sub
    Private Sub ComboBox1 SelectedIndexChanged 1(sender As Object, e
As EventArgs) Handles ComboBox1.SelectedIndexChanged
        search()
    End Sub
   End Class
```

Donor Trannsaction

```
Imports System.Data
Imports System.Data.SqlClient
Public Class transaction1
    Dim con str As String = "Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True"
    Dim con As New SqlConnection()
    Dim data As New DataSet()
    Dim cmd As New SqlCommand
    Dim adpter As New SqlDataAdapter
    Private Sub Form1 Load(sender As Object, e As EventArgs) Handles
MyBase.Load
        combo1()
        autoId()
    End Sub
    Sub autoId()
        Using con = New SqlConnection(con str)
            con.Open()
            Dim sql As String = "select Top 1 TransactionId from
[dbo].[Transaction] order by TransactionId desc"
            cmd = New SqlCommand(sql, con)
            Dim adapter As New SqlDataAdapter(cmd)
            Dim ds As New DataSet
            adapter.Fill(ds)
            If (ds.Tables(0).Rows.Count > 0) Then
                Dim tmp id =
```

19CS2A1025 40 | P a g e

```
ds.Tables(0).Rows(0)("TransactionId").ToString().Substring(3, 2)
                Dim new id As Integer = CInt(tmp id) + 1
                TextBox6.Text = "TRB" & new id.ToString("00")
                TextBox6.Text = "TRB01"
            End If
            con.Close()
        End Using
    End Sub
    Private Sub combo1()
        Dim connection As New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        connection.Open()
        Dim cmd As SqlCommand = New SqlCommand("select distinct
                                                                   ID
       [dbo].[donordetails] ", connection)
from
        ComboBox1.Items.Clear()
        Dim myreader As SqlDataReader = cmd.ExecuteReader
        ComboBox1.Items.Clear()
        While myreader.Read()
            ComboBox1.Items.Add(myreader("ID"))
        End While
        connection.Close()
        ComboBox1.Items.Insert(0, "")
    End Sub
    Private Sub search()
        Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            con.Open()
            Dim strsql As String
            strsql = "select Name from
                                           [dbo].[donordetails]
         ID= '" + ComboBox1.Text + "' "
where
            Dim cmd As SqlCommand = New SqlCommand(strsql, con)
            Dim myreader As SqlDataReader
            myreader = cmd.ExecuteReader
            myreader.Read()
            TextBox1.Text = myreader("Name")
        Catch ex As Exception
            MsgBox(ex.Message)
        Finally
            con.Close()
        End Try
    End Sub
    Private Sub Button6 Click(sender As Object, e As EventArgs)
Handles Button6.Click
```

19CS2A1025 41 | P a g e

```
Dim con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
        Try
            Dim cmd As SqlCommand = New SqlCommand("INSERT INTO
[dbo].[Transaction]
([TransactionId],[RecipientType],[Name],[Date],[BloodGroup],[NoofBag
s],[Amount],[BloodBagID],[RecipentID])values('" + TextBox6.Text +
"','" + Label8.Text + "','" + TextBox1.Text + "','" +
DateTimePicker1.Text + "','" + txtblood.Text + "','" + TextBox2.Text
+ "','" + TextBox4.Text + "','" + TextBox3.Text + "','" +
ComboBox1.Text + "')", con)
            con.Open()
            cmd.ExecuteNonQuery()
            MessageBox.Show("Transaction Details Saved ")
            autoId()
        Catch ex As Exception
            MessageBox.Show(ex.Message)
        End Trv
    End Sub
    Private Sub Button2_Click(sender As Object, e As EventArgs)
Handles Button2.Click
        Dashboard.Show()
        Me.Hide()
    End Sub
    Private Sub Button1 Click(sender As Object, e As EventArgs)
Handles Button1.Click
        TextBox1.Clear()
    Private Sub ComboBox1 SelectedIndexChanged 1(sender As Object, e
As EventArgs) Handles ComboBox1.SelectedIndexChanged
        search()
    End Sub
End Class
```

Transaction Report

19CS2A1025 42 | P a g e

```
con.Open()
            Using cmd As New SqlCommand("select * from
[dbo].[Transaction]", con)
                Dim da As New SqlDataAdapter
                da.SelectCommand = cmd
                da.Fill(dt)
            End Using
        End Using
        With Me.ReportViewer1.LocalReport
            .DataSources.Clear()
            .ReportPath =
"C:\Users\yeshu\source\repos\WindowsApp3\WindowsApp3\Report1.rdlc"
            .DataSources.Add(New
Microsoft.Reporting.WinForms.ReportDataSource("DataSet1", dt))
        End With
        Me.ReportViewer1.RefreshReport()
    End Sub
    Private Sub Button1 Click(sender As Object, e As EventArgs)
Handles Button1.Click
        Dim dt As New DataTable
        Using con As SqlConnection = New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
            con.Open()
            Using cmd As New SqlCommand("select * from
[dbo].[Transaction] where RecipientType='" + ComboBox1.Text + "'",
con)
                Dim da As New SqlDataAdapter
                da.SelectCommand = cmd
                da.Fill(dt)
            End Using
        End Using
        With Me.ReportViewer1.LocalReport
            .DataSources.Clear()
            .ReportPath =
"C:\Users\yeshu\source\repos\WindowsApp3\WindowsApp3\Report1.rdlc"
            .DataSources.Add(New
Microsoft.Reporting.WinForms.ReportDataSource("DataSet1", dt))
        End With
        Me.ReportViewer1.RefreshReport()
    End Sub
End Class
```

Stock Report

```
Imports System.Data
Imports System.Data.SqlClient
Imports Microsoft.Reporting.WinForms
Public Class Form6
```

19CS2A1025 43 | P a g e

```
Private Sub Form6 Load(sender As Object, e As EventArgs) Handles
MyBase.Load
        Dim dt As New DataTable
        Using con As New SqlConnection("Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\yeshu\source
\repos\WindowsApp3\WindowsApp3\Database1.mdf;Integrated
Security=True")
            con.Open()
            Using cmd As New SqlCommand("select * from
[dbo].[Stock]", con)
                Dim da As New SqlDataAdapter
                da.SelectCommand = cmd
                da.Fill(dt)
            End Using
            With Me.ReportViewer1.LocalReport
                .DataSources.Clear()
                .ReportPath =
"C:\Users\yeshu\source\repos\WindowsApp3\WindowsApp3\Report2.rdlc"
                .DataSources.Add(New
Microsoft.Reporting.WinForms.ReportDataSource("DataSet1", dt))
            End With
            Me.ReportViewer1.RefreshReport()
        End Using
    End Sub
    End Class
```

19CS2A1025 44 | P a g e

4.SYSTEM CONFIGURATION

4.1 Hardware Requirement

Processor : Intel(R) Core (TM) i3-6006U CPU @ 2.00GHz 1.99

GHzRAM: 4.00 GB

System type: 64-bit operating system, x64-based processorKeyboard: Normal and Multimedia

Mouse : Compatible mouse

4.2 Software Requirement

Operating System : Microsoft Windows 10 Proffession

Programing Language: Microsoft Visual Studio 2019

Database or DBMS : SQL SERVER 2012

Documnetation : Microsoft Word 2013

19CS2A1025 45 | P a g e

5.DETAILS OF SOFTWARE

5.1 Overview Of Front End

Microsoft Visual Studio 2019

Microsoft Visual Studio 2019 is an integrated development environment(IDE) from Microsoft. It is used to develop computer programs from Microsoft Windows, as well as web sites, web apps, web services and mobile apps, Visual Studio uses microsoft sSoftware development platforms such as WIndows API, Windows Forms, Windows Forms, Windows PresentationFoundation, store and Microsoft Silverlight. It can produce both native codeand managed code.

Visual Studio support different programming languages and allow the code editing and debugger to support nearly any programming language, provided a languagespecific service exists. Built-in language include C, C++, Visual C++ and VB,NET.Support for other languages such as Python, Node.is, and M among other is available via language such installed separately. It is also support XML/,XSLT,HTML/XHTMAL,Java were supported in the past..

Microsoft provides a free vesion of Visual Studio called the Communityedation that support plugins and is no available at no costfor all users. Support for programming languages is added by using a specific VS Package called a language Service. A language service defines various interfaces which the VS Package implentation can implement to add support for various functionalitiles. Functionalitiles that can be added this way include sytax coloring statement completing, brace matching, parameter information tooltips, member list and error markers for bankground compilation.he language.

19CS2A1025 46 | P a g

If the interfsce is implemented, the functionally will be available for the language. Language services are implemented on per-language basis. The implementations can reuse code from the parser or the compiler for the language. Language services can be implemented either in native code or managed code. For native code, either the native COM interfaces of the Babel Framework can be ued. For managed code, the MPF includes wrapers for writingmanaged language services.

FEATURES

- Boolean Conditions
- Automatic Garbage Collection
- Standard Library
- Assembly Versioning
- Properties and Events
- Delegates and Events Management
- Easy-to-use Generics
- Indexers
- Conditional Compilation
- Simple Multithreading

Advantages

The structure of the Basic programming language is very simple, particularly as to the executable code.

- VB is not only a language but primiarly an integrated, interactive development environment("IDE")
- The VB-IDE has been highly optimized to support rapid application development ("RAD"). It is particularly easy to develop graphical user interfaces and to connect them to handler functions provvided by the application.
- The graphical user interface of the VB-IDE provides intuitively appealing views for the management of the program structure in the large and the various types of entities (calsses, module sprocedures, forms,...).
- VB provides a comprehensive interactive and context-sensitive onlinehelp system.
- When editing program texts the "IntelliSense" technology informs you inalittel poppup
- Windows about the types of constructs that may be entered at the currentcursor location.

19CS2A1025 47 | P a g

- VB is a component integration language which is attuned to MIcrosoft's COmponent Object Model("COM").
- COm components can be written in differne languages and thenintegrated using VB.
- Interfaces of COM components can be easily called remotely via Distributed COM("DCOM"), which makes it easy to construct distributed applications
- COM components can be embeddedin/linked to your application's userinterface and also in/to stored documents
- There is a wealth of rapidly available COM components for manydifferent purposes.
- Visual BAsic is built around rthe .NET environment used by all Microsoft Visual languages, so there is very little that can't done in VisualBasic that can be done in their languages (such as C#).

Disadvantages

- Visual basic is a proprietary programming language written by Microsoft, so programs written in Visual basic cannot, easily, be transferred to other operating systems.
- There are some, firly minor disadvantages compared with C,C has better declaration of arrays its posible to intialize an array of structures in C.atdeclaration time; this impossible in VB.

5.2 Overview of Back-End

Microsoft SQL Server:

Microsoft SQL Serveer is a relational database management system developed by Microsoft. As a database server, it is a software product with primary ffunction of sorting and retrieving data as requested by other softare applications - which may run either on the same computer or on another computer across a network (including the Internet).

Microsoft markets at least a dozen diifferent editions fsa mIcrosoft SQL Server, aimed at didiences and for workloads ranging from small single-machineapplications to large Internet-facing applications with many concurrent users/. The protocol layer implements the external interface to SQL Server . All operations that can be invoked on SQl Server are communicated to it via a Microsoft-defined format, called Tabular Data Stream(TDS). TDS is an application layer protocol, used to transfer dat between a database server and a cient.

Intially designed and developed by Sybase Inc.for their Sybase SQl Server relational databse engine in 1984, and later by Microsoft Sql Server. TDS packets can be encaused in other physical transport dependent

19CS2A1025 48 | P a g

protocols, including TCP/IP, named pipes, and shared memory, Consequently, access to SQl Server is avaailable over these protocols, In addition, the SQl server API is also exposed over web series.

A Relational Data base Management System(RDBMS) is software that:

- Enables you to implement a database with tables, columns and indexes.
- Guarantee the Referential Integratity between rows of various tables.
- Updates the indexes automatically.
- Interprets an SQl query and combines information from various tables.

MySQl is aleading open source database management system.it is a multiuser, multithreaded database management System.MySQl is especially popular on th eweb.It is one of the parts of the very popular LAMP platfom.Linux, Apache, MySQl nad PHP.MySQL database is available on mostimportant OS platforms.It riins on BSD Unix, Linux, Windows or MAc.WIkipedia, YouTube, Facebook use MySQL. These sites manage millions of queries each day.MySQl server software and the client libraries are dual licensed: GPL version 2 and proprietaryy license.MYSQL is a fast, easy-to-useRDBMS being used for many small and big business.MYSQl is developed, marketed and supported by MySQl AB, which is a Swedish company.

ADVANTAGES:-

MySQl is becoming so popular because of amny these reasons:

- MySQl is released under an open-source license. So you have nothing topay to use it.
- MySQl is a very powerful program in its own right. It handles a large subset of the functionality of the most expensive and powerful database packages.
- MySQL uses a standard from ofthe well-Know SQL data language.
- MySQL works on many operazting systems and with many languagesincluding PHOP,PERL,C,C++,JAVA etc.
- MySQL works very quickly and works well even with large data sets.
- MySQl is very friendly to PHP, the most appreciated language for web development.
- MYSQL supports large databases, up to 50 million rows or more in atable.
- MySQL is customizable. The pen-source GPL license allows programmers to miodify the MySQl software to fit their own specific evironmens.

Features

19CS2A1025 49 | P a g

Internals and Probability

- Witten in C and C++
- Tested with a broad range of different comilers.
- works on many differerent platforms.
- For portability, uses CMake in MySQL 5.5 and up. Previous series useGNU Automake, Autoconf and Libtool.
- Tested with purify as welll as with Valgrind a GPL tool.
- Uses mutli-layered server design with independent modules.
- Designed to be fully multi-thresded using kernel thresds, to easily usemultiple CPUs if they are availabINARYle.
- Provides transactional and non transactional storage engines.

Security

- A privilege and password system that is very flexible and secure, and that enables host based verification.
 - Password security by encription of all password traffic when youconnect to a server.
- Scalability and Limits
- Support for large databases. WE use MySQL Server with databases that contain 50 million records. We also know of users who use MySQl Serverwith 200,000 tables and about 5,000,000,00 rows.
- Support for up to 64 indexes prt table. Each index may consist of 1 to 6 columns or
 parts of columns. The maximum index width for in no DB tables is either 767 bytes
 or 3072 bytes. The maximum index width for My ISAM tables is 1000 bytes. An
 index may be a preffix of a cloumn for CHAR, VARCAHR, BLOB or TEXT column
 types.

Connectivity

- Clients can connect to My SQl Server usng several protocolss:
- Clients can connect using TCO/IP sockets on any platform.
- On WIndows systems, clients an connect using named pipes if the server is started with the enable named pipe option. Windows servers also shared
 - -Memory connections if started with the dhared memory option. Clientscan connect through shared memory ny usong the protocol memory option.
- On Unix systems, clients can connect using domain socket files.

Localization

The server can provide error messages to clients in amny languages.

19CS2A1025 50 | P a g

- Full support for several different character sets, inclluding latinl(cp1252), german, big5, ujis, several Unicode character sets, and more.
- All data is saved int eh chosen caharacter.
- Sorting and comparisons are done according to the chosen character setand collation. It is possible to changed dynamically, and individual clients specify their own time zone.
- The server time zonecan be changed dynamically and individual clientscan specify their own time zone.

Clients and Tools

- MySQL includes several client and utility programs. These include bothcommandline programs and graphical programs.
- MySQL Server has built-in support for SQL statements to check, optimize and repair tables. These statements are available from the command line through the mysql check client.
- MySQL also includes myisamch, a very fast command-line utility forperforming these operations on My ISAM tables.
- MySQL programs can be invoked with the --help or -? option to obtainonline assistance.

5.3 ABOUT THE PLATFORM

Windows is a series of Operating Systems developed by Microsoft.Each version of WIndows includes a Graphical User Interface, with adesktop that allows users to view files and folders in windows.For the past two dcadess.WIndows has beenthe most widely used operating system for personal computers PCs.Past versions of windows home editions include Windows 3.0(1990),WIndows 3.1(19920,Windows XP(2001) amd Windows Vista(2006).

The current version WIndows 10.021390.2025 was released in june 142021. The first business-oriented version of Windows, called WIndowss NT3.1, was in 1993. The company simply created different editions of the operating system for personal and business purposes. Windows is designed torun on standard x86 hardware, such as Intel and AMD processors.

Therefore, it can be installed on multiple brands of hardware such as Dell, HP, Lenovo and sony computers, as well as home built PCs. Windows 10 also includes several touch screen features, that allow the operating system torun on certain tablets and computers with touch screen displays, Microsoft's mobile operating system.

Windows Phone, is designed specipically for smartphones and runs on severalbrands of phones, including HTC, Nokia and Samsung.

.NET FRAMEWORK

19CS2A1025 51 | P a g

NET Framework(pronounced ad "dot net") is a software framework developed by Microsoft that runs primiarly on Microsoft WIndows.It includes alarge class library(FCL) and provides language interoperability(each language can use code written in other languages)across sveral programming languages.Programs written for .NET Framework eecute in a software environment(in contrast to a hardware environment) named COmmon Language RUntime(CLR),an appplication virtual machine taht provides servicessuch as security,memory management and eception handling.As such,computer code written using .NET Framework is called "manage code".

FCL and CLR togetherconstitute the .NET Framewoork .FCL providesuser interface,data access,database connectivity,cryptography,web development,numkeric algorithms and network communications.Progrmmersproduce software by combining their source code with .NET Framework and other libraries.

The framework is intended to be used by newest applications created forthe Windows platform.MIcrosoft also produces an integrated development environment largely for .NET software called VIsual Studio. .NET framework began as proprietary soiftware, although the firm worked to standarie the software stack alsomt immediately, even before its first release.Despite the standardisation efforts, developers, mainly those in the free and open-source software communities, expressed their unease with the selected terms and the propects. Since then, Microdoft has changed developed software project, including issuing an upadate to its patent promising to address the concerns.

6.TESTING

Testing is a virtual part of software development, and it is important to start it as early as possible, and to make testing a part of the process of deciding requirements. To get the most useful perspective on your development project, it is worthwhile devoting some thought to the entire lifecycle including how feedback from users will influence the future of the application. The tools and

techniques we've discussed in this book should help your team to be more responsive to changes without extra cost, despite the necessarily wide variety of different development should be adopted gradually, assessing the results after each step.

Testing is part of a lifecycle. The software development lifecycle is one in which you hear of need, you write some code to fulfil it, and then you check to see whether you have pleased the stakeholders—the users, owners, and other

19CS2A1025 52 | P a g

people who have an interest in what the software does. Hopefully they like it, but would also like some addition or changes, so you update or augment yourcode; and so the cycle continues.

Software development life cycle

Testing is a proxy for the customer. You could conceivably do your testing by releasing it into the wild and waiting for the complaints and compliments to come back. Some companies have been accused of having such a strategy as their business model even before it became fashionable. But on thewhole, the books are better balanced by trying to make sure that the software will satisfy the customer before we hand it over. We therefore design tests basedon the stakeholder's needs, and run the tests before the product reaches the users. Preferable well before then, so as not to waste our time working on something that isn't going to do the job. In this light, two important principles become clear:

- Tests represent requirements. Whether you write user stories on sticky notes on the
 wall, or use cases in a big thick document, Your tests shouldbe derived from and
 linked to those requirements. And as we've said, devising tests is a good vehicle for
 discussing the requirements.
- We're not done till the tests pass. The only useful measure of completionis when tests have been performed successfully.

Those principles apply no matter how you develop your software. Software Testing

Types:

Black box testing – Internal system design is not considered in this type oftesting. Tests are based on requirements and functionality.

White box testing – This testing is based on knowledge of the internal logicof an application's code. Also known as Glass box Testing. Internal softwareand code working should be known for this type of testing. Tests are based on coverage of code statements, branches, paths, conditions.

Unit testing – Testing of individual software components or modules. Typically done by the programmer and not by testers, as it requires detailed

19CS2A1025 53 | P a g

knowledge of the internal program design and code. may require developingtest driver modules or test harnesses.

Incremental integration testing – Bottom up approach for testing i.e continues testing of an application as new functionality is added; Application functionality and modules should be independent enough to test separately. done by programmers or by testers.

Integration testing – Testing of integrated modules to verify combined functionality after integration. Modules are typically code modules, individual applications, client and server application on a network, etc. Thistype of testing is especially relevant to client/server and distributed systems.

Functional testing – This type of testing ignores the internal parts and focuson the output is as per requirement or not. Black-box type testing geared to functionality requirement or not. Black-box type testing geared to functionalrequirement of an application. System testing – entire system testing as per the requirements. Black-box type testing that is based on overall requirements specifications, covers all combined parts of a system.

End-to-end testing – Similar to system testing, involves testing of a complete application environment in a situation that mimics real world use, such as interacting with a database, using network communications, or interacting with other hardware, applications, or systems if appropriate.

Sanity testing – Testing to determine if a new software version is performing well enough to accept it for a major testing effort. If application is crashing for initial use then system is not stable enough for further testingand build or application is assigned to fix.

Regression testing – Testing the application as a whole for the modification in any module or functionality. Difficult to cover all the system in regression testing so typically automation tools are used for these testing types.

Acceptance testing – Normally this type of testing is done to verify if system meets the customer specified requirements. User or customer do thistesting to determine whether to accept application.

Load testing – It is a performance testing to check system behaviour under load. Testing an application under heavy loads, such as testing of a web site

19CS2A1025 54 | P a g

under a range of loads to determine at what point the system's response timedegrades or fails.

Stress testing – System is stressed beyond its specifications to check howand when it fails. Performed under heavy load like putting large number beyond storage capacity, complex database queries, continuous input to system or database load.

Performance testing – Term often used interchangeably with 'stress' and 'load' testing . To check whether system meets performance requirements. Used different performance and load tools to do this.

Usability testing – User- friendliness check. Application flow is tested, cannew user understand the application easily, proper help documented whenever user stuck at any point basically system navigation is checked in this testing.

Install/uninstall testing – Tested for full, partial, or upgrade install/uninstall process on different operating systems under hardware, software environment.

Recovery testing – Testing how well a system recovers from crashes, hardware failures, or other catastrophic problems.

Security testing – Can system be penetrated by any hacking way. Testinghow well the system protects against unauthorized internal or external access. Checked if system, database is safe from external attacks.

Compatible testing – Testing how well software performs in a particular hardware/software/operating system/network environment and different combinations of above.

Comparison testing – Comparison of product strength and weaknesses withprevious versions or other similar products.

Alpha testing – In house virtual user environment can be created for this type of testing. Testing is done at the end of development. Still minor designchange may be made as a result of such testing.

Beta testing – Testing typically done by end-user or others. Final testingbefore releasing application for commercial purpose.

19CS2A1025 55 | P a g

7.CONCLUSION AND FUTURE ENHANCEMENT

Future Enhancements

The system has been developed under the given conditions and is found to work efficiently and efficiently. We should make the possible use ofthe techniques. The basic purpose of all the innnovations in the technology is for our betterment.

The system has been tested with sample covering. All possible options and their performancess are fgood. Since this system is flexible and modular, further modification of this package can be easily incorporated. The system can be easily palced on the office so that best work efficiently.

Conclusiosn

In this project "BLOOD BANK MAMNAGEMENT SYSTEM" wehave tried to computerize various processes of Blood Bank.

Blood Bank management System is very flexible software and can be used in any branch BLOOD BANK for keeping record. In this software we have tried to provide all the Blood bank management system realted record keeping facilities which helps to keep record and employeed who belongs to it.

The main focus of this project is to less in human efforts. The maintanance of the record is made efficient, as all the records are stored in the SQL database. It is user interactive and effective than the existing system. The flexibility of visual basic helps to maintain the "BLOOD BANK MAMNAGEMENT SYSTEM" more efficiently.

Finally, we are thankful to all the people who have given us their support in this endeavour.

19CS2A1025 56 | P a g

8.BIBLIOGRAPHY

The following books that have been rrefered for the successful completions of our project work:

Complete Reference - 5th Edition by Herbert Schildt, published by McGraw-Hill Publishing Coompany Limited.

Software Engineering - A Practitioner's Approach, Fifth Edition by Roger S Preddman, Publiished by McGraw -Hill International Edition.

Visual Basic Programming - By Steven Holzner, published by dream techpress.

Database - By Elmasri Navathe

19CS2A1025 57 | P a g

9. APPENDICES A-SCREENSHOTS

FORM DESIGNS:

MAIN FORM



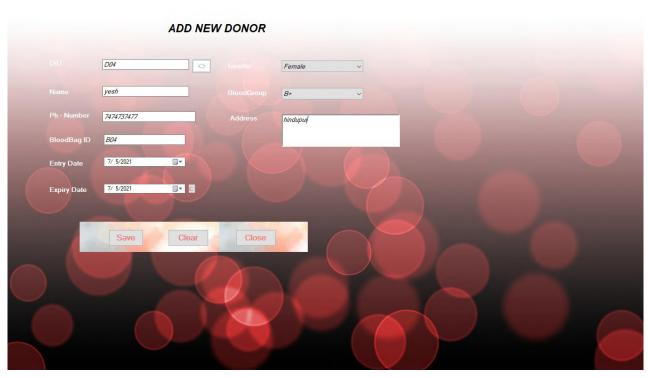
LOGIN FORM



19CS2A1025 58 | P a g e

BLOOD BANK MANAGEMENT SYSTEM





19CS2A1025 59 | P a g

Save

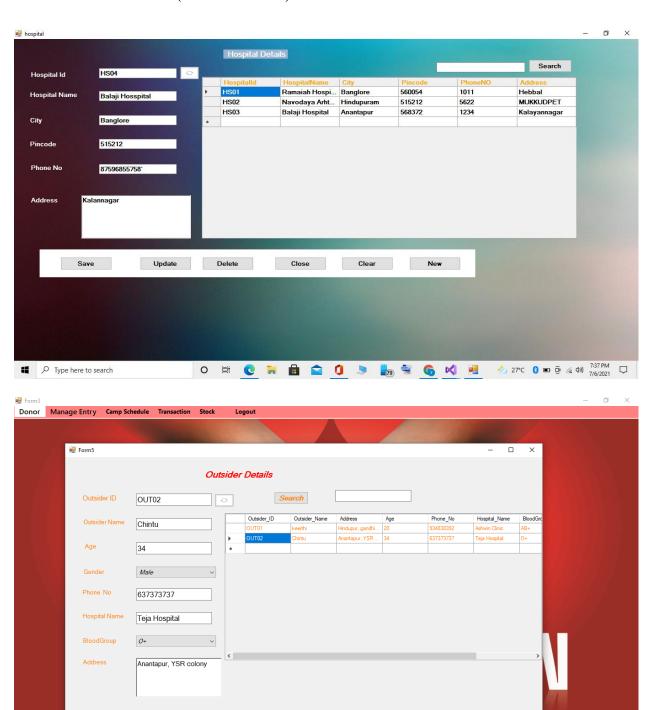
Type here to search

Update

Delete

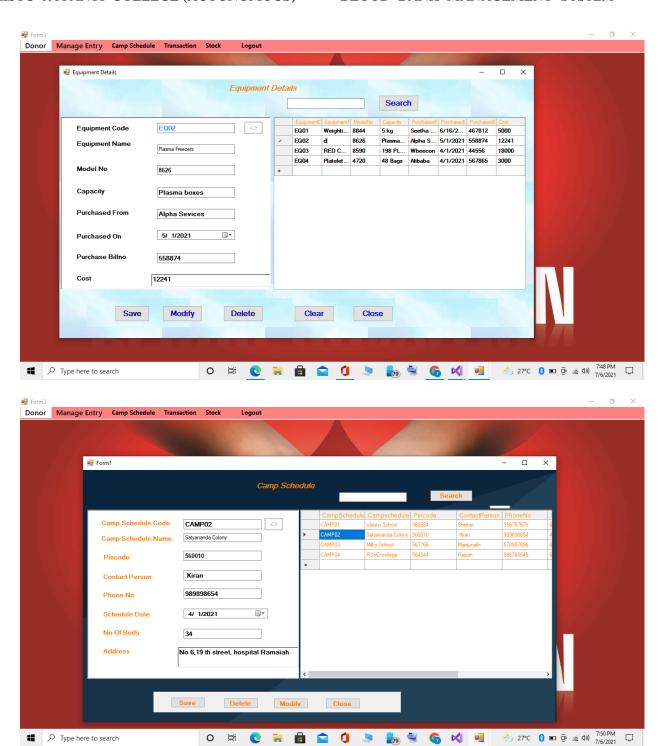
O 計 🕲 諞 💼 😭 🚺 🕒 🎼 🥞 📢 🖳 🔥 27°C 🛭 🗉 🖫 🖟 49 7/6/2021

BLOOD BANK MANAGEMENT SYSTEM



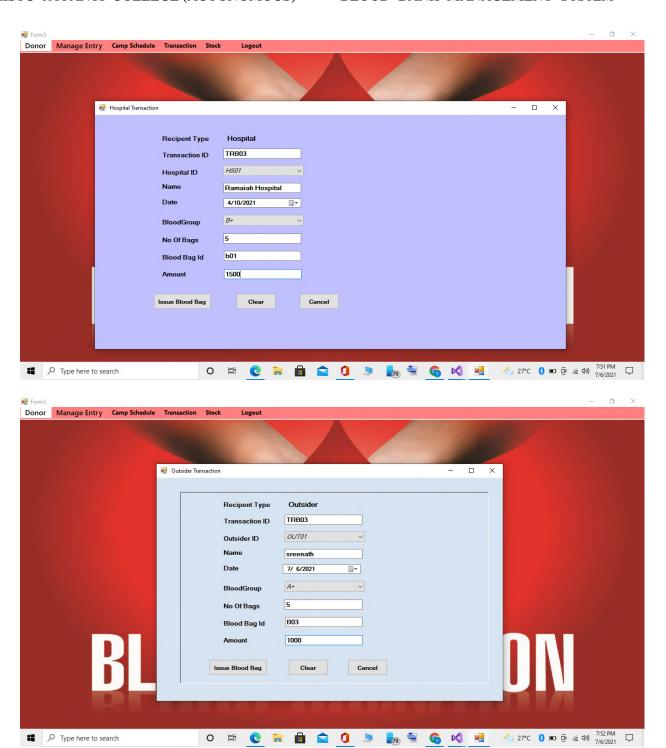
19CS2A1025 60 | P a g e

BLOOD BANK MANAGEMENT SYSTEM



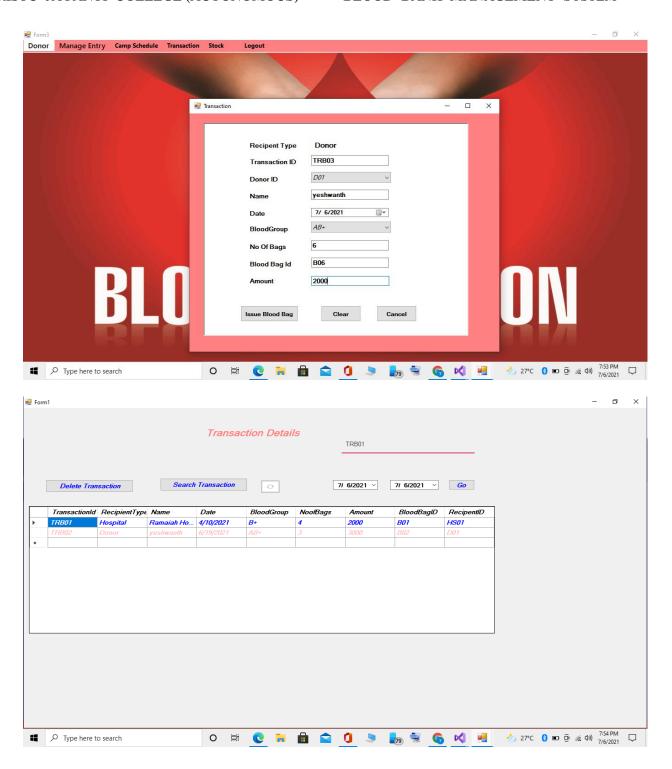
19CS2A1025 61 | P a g e

BLOOD BANK MANAGEMENT SYSTEM



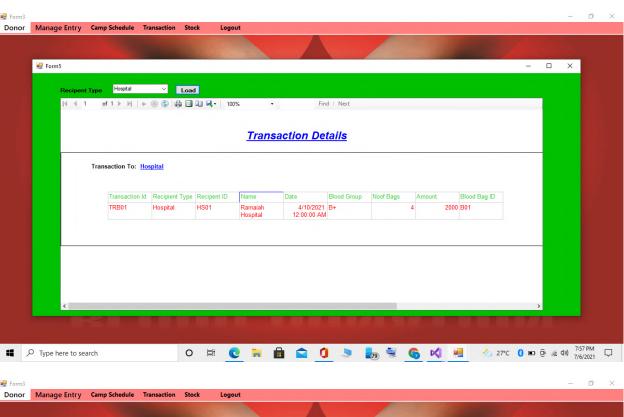
19CS2A1025 62 | P a g e

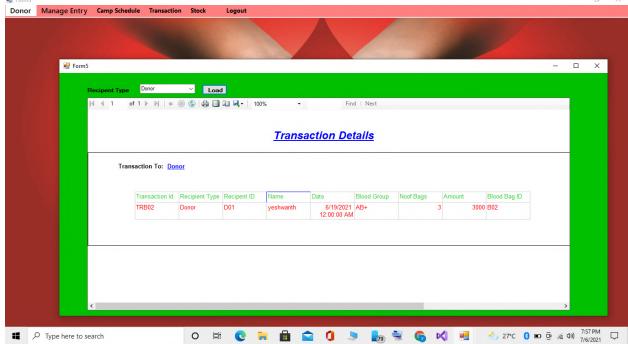
BLOOD BANK MANAGEMENT SYSTEM



19CS2A1025 63 | P a g e

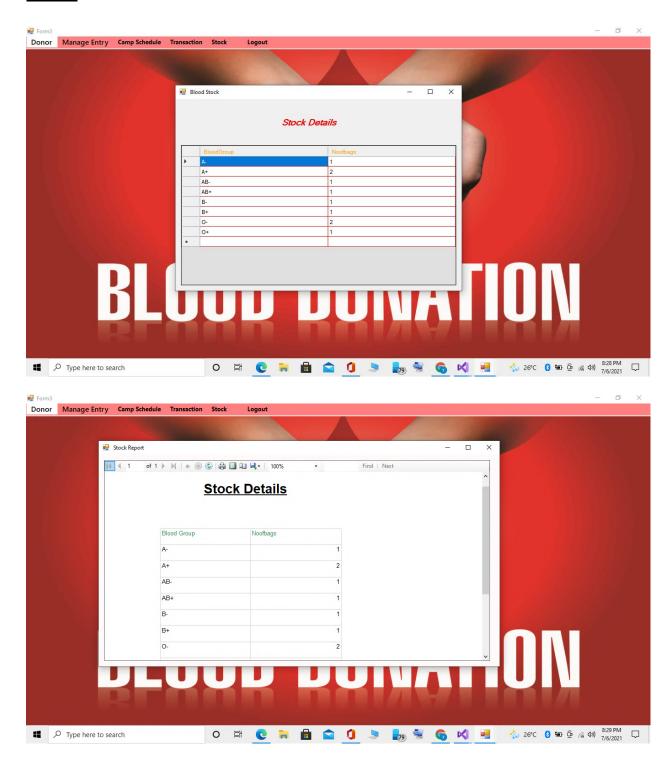
Reports





19CS2A1025 64 | P a g e

Stock



19CS2A1025 65 | P a g e

10. APPENDICES – B – STRUCTURE

Login:

Field Name	Data Type
User id	Varchar
Password	Int

Donar Details:

Field Name	Data Type
7.1	X7 1
Id	Varchar
Name	Varchar
Number	Varchar
Gender	Varchar
Blood Group	Varchar
Address	Varchar
Blood Group ID	Varchar
Entry Date	DATE
Expiry Date	DATE
Blood bag weight	INT

Hospital Details:

Field Name	Data Type
Hospital ID Hospital Name City Pincode Phone No Address	Varchar Varchar Varchar Int Int Varchar

19CS2A1025 66 | P a g e

Outsider Details:

Field Name	Data Type
Outsider ID Outsider Name Address Age Phone_No Hospital_Name Blood Group Gender	Varchar Varchar Varchar Int Int Varchar Text Text

Stock Details:

Field Name	Data Type
Blood Group No.of Bags - -Available	Text Number

Camp Schedule Details:

19CS2A1025 67 | P a g

Equipment Details:

Field Name	Data Type
Equipment Code Equipment Name Model No Capacity Purchased From Purchased On Purchased Bill No Cost	Varchar Varchar Int Varchar Varchar Date Int Int

Transaction:

Field Name	Data Type
Transaction Id Transaction Type Name Date Blood Group No.Of Bags Amount Blood Bag ID Recipent ID	Varchar Varchar Varchar Date Varchar Int Int Varchar Varchar

19CS2A1025 68 | P a g

11. APPENDICES-C- SAMPLE REPORT OF TEST

Sl No	Test case id	Test discription	Steps to execute	Test data	Expected result	Actual result	Status
01	Test Case id 1	Correct user name and password	Start – enter the username, password Login.	Correct username and Password	Login is successful	Login is successful	Pass
02	Test Case id 2	Correct user name and wrong Password	Start – enter the username, password login.	Correct username and wrong Password	Recheck username and password	Recheck username and password	Pass
03	Test Case id 3	wrong user name and correct Password	Start – enter the username, password login.	Correct username and wrong password	Recheck username and password	Recheck username and password	Pass
04	Test Case id 4	wrong username and wrong Password	Start- enter the username, password login.	wrong username and wrong Password	Recheck username and password	Recheck username and password	Pass
05	Test Case id 5	Phone number less than 10 digits	-SignUp enter all the details -click sign up	phone number	phone numbers must be atleast 10 digits long	phone numbers must be atleast 10 digits long	Pass
06	Test Case id 6	phone number greater than 10 digits	-sign up enter all the details -click signup	phone number	phone numbers must be of a maximum of 10 digits long	phone numbers must be of a maximum of 10 digits long	Pass

69 | P a g 19CS2A1025

KRISTU JAYANTI COLLEGE (AUTONOMOUS)	BLOOD BANK MANAGEMENT SYSTEM

19CS2A1025 70 | P a g e