PROJECT REPORT ON

CAFETERIA MANAGEMENT SYSTEM

SUBMITED BY:

ZORINDIKA RALTE – ROLL NO. 1523 BCA 080

C. LALREMRUATA – ROLL NO. 1523 BCA 083

B. LALBERKHAWPUIMAWIA – ROLL NO. 1523 BCA 087

Under the guidance of
Mr.H.Lalruatkima
Assistant Professor
Bachelor of Computer Applications
(HATIM)

MIZORAM UNIVERSITY, TANHRIL: AIZAWL

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ZORINDIKA RALTE
ROLLNO: 1523 BCA 080
REGN NO: 1501833 of 2015

C. LALREMRUATA
ROLLNO NO: 1523 BCA 083
REGN NO: 1501817 of 2015

B. LALBERKHAWPUIAWIA
ROLLNO: 1523 BCA 087
REGN NO: 1501816 of 2015

Under the guidance of:
Mr.H.Lalruatkima
Assistant Professor
Bachelor of Computer Applications

Submitted in partial fulfilment of the requirement for
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HIGHER AND TECHNICAL INSTITUTE, MIZORAM (HATIM)
CHANMARI, LUNGLEI – 796701
2018

HIGHER AND TECHNICAL INSTITUTE, MIZORAM

CHANMARI, LUNGLEI – 796701

CERTIFICATE

This is to certify that Zorindika Ralte, C. Lalremruata and B. Lalberkhawpuimawia has fully completed the project entitled "HATIM Tuck Shop Order System" in order to meet the requirement of the Mizoram University for the VI Semester Bachelor of Computer Application in the year 2018(January-May). It is to certify that all the corrections/suggestions indicated for internal assessment has been incorporated in the project. The project report has been approved as it satisfies the academic requirements in respect of the Project work prescribed for the BCA course.

………………………
(H.Lalruatkima)
Project Guide
Department of
Computer Sciences

………………………………
(Joseph Lalhunmawia)
Head of Department
Department of
Computer Sciences

………………………………………
(Dr. Rema Chhakchhuak)
Principal
Higher and Technical
Institute, Mizoram

Name of Examiner

Signature with date

1. _____

…………………………………

1. INTRODUCTION

1.1 OVERVIEW

This project mainly focuses with management of the cafeteria in the institution in which all the orders and other transaction are recorded. The order can be made by using the Barcode Scanner which scanned the ID of the customer. It makes it easier to record the transactions and to complete the tasks faster as compare to storing the in the books. To order the item from the cafeteria the customer need to have enough balance for the item and the balance will be cut as per ordering the item, this will eliminate the large amount of debt which caused the improper function of the cafeteria.

When there is no proper managing system, a problem arises between the customer and the owner. This management system will store all the record made by the customer, which will solve the problem between them.

1.2 OBJECTIVE

The main objective of this project is to design and develop a simple and understandable Cafeteria Management System. This will help in ordering items using their remaining balance and this transaction will be recorded into the database which is available to check in the future days.

This project focus on the need of a better Cafeteria Management system by making used of Barcode Scanner for ordering and computer-based applications with database system. The objectives of the project are as follows:

- To store all the records of the student and workers from the institution in the database with the unique ID number which can be access using the Barcode Scanner for ordering the items in the menu.
- To create an efficient and reliable database for storing and retrieval of required data and information which can be store the amount of money for a person's balance.
- To develop and provide an efficient recording and checking the content of the information for the Cafeteria Manager.
- To design a user interface to meet the requirements and specifications of user.

1.3 SCOPE

The scope of the covers that is necessary for the required steps for the Cafeteria Management System using Barcode Scanner and Graphical Users Interface (GUI) based application using Visual Studio 2010 with a database system using Microsoft access.

The main scope includes the following:

- A database system which consist of table or records of the necessary data and information like Login table, Add Menu table, Register table, etc. This database is corrected to GUI and can be updated from the front- end.
- Menu is displayed to the home which can be ordered by the customer using their ID.
- Balance can be recharge by paying some amount of money as per the customer's desire.
- New Registration can be done providing ID, Name, Department, Semester/Designation.
- Menu can be added every day or can be updated from the existing menu.
- Recent order can be easily view from the database.

2. SYSTEM REQUIREMENTS SPECIFICATION

2.1 Hardware requirements

This project is design such that it can be used and implemented almost on any computer system. Thus, the hardware specification and requirement are not high. The basic configuration required are as follows:

    (i)   Color Monitor
    (ii)   Processor- Pentium IV and above
    (iii)   RAM 256 MB and above
    (iv)   Secondary memory (not more than 1 GB)
    (v)   QWERTY or IBM compatible keyboard
    (vi)   Optical Mouse
    (vii)   Barcode Scanner

2.2 Software Requirements

The software used for designing the Users Interface (front- end) and the database system (Back- end) used are as follows:

    (i)   Microsoft Visual Studio 2010
    (ii)   Microsoft Access 2010

2.3 Details of Hardware Used

The main details of the hardware and scripting language used to create this project are given below:

1. Color Monitor: A color monitor to view the normal output settings. A monitor is one of the most important output devices for a computer which displays all processes and application done by the machine in the form of Graphical User Interface or Command Line Interface.
2. Processor: The processor is the main processing unit to run the project in the computer.
3. RAM: The main is the place in which the application is stored while the process is running. For a project as this, the RAM need not be high and can be run in full performance even in 128MB of memory.
4. Secondary memory: The secondary memory is the memory in which the application can be stored as a backup file in the computer.
5. QWERTY or IBM compatible Keyboard: The Keyboard is the main input device to enter the necessary information and data.

2.4 Details of Software Used

The main details of the software and database engine used to create this project are given below:

1. Microsoft Visual Studio 2010

Visual Basic is the third-generation event-driven programming language and integrated Development Environment(IDE) from Microsoft for its COM programming model. VB is also considered a relatively easy to learn and use programming language, because of its graphical development features and BASIC heritage.

Visual Basic was derived from BASIC and enables the Rapid Application Development(RAD) of graphical user interface (GUI) applications, access to databases using Data Access Objects, Remote Data Object, or ActiveX Data Objects, and creation of ActiveX controls and objects. Scripting languages such as VBA and VBScript are syntactically similar to Visual Basic, but perform differently.

A programmer can put together an application using the components provided with Visual Basic itself. Programs written in Visual Basic can also use the window APL, but doing so requires external function declaration.

2. Microsoft Access 2010

Microsoft Access is a pseudo relational database management system from Microsoft that combines the relational Microsoft jet Database Engine with a graphical user interface and software development tools. It is the member of the Microsoft office suite of applications, included in the Professional and Higher editions or sold separately.

Access stores data in its own format based on the Access jet Database Engine. It can import or link directly to data stored in other Access databases, Excel, SharePointlists, text, XML, Outlook, HTML, dBase, Paradox, Lotus 1-2-3, or any ODBC-compliant data container, including Microsoft SQL, Server, Oracle, MySQL, and PostgreSQL. Software developers and data architects can use it to develop

application software, and "power users" can use it to build simple applications. Like other Office applications, Access is supported Visual Basic for Applications, an object-oriented programming language that can reference a variety of objects including DAO(Data Access Object), ActiveX Data Objects, and many other ActiveX components. Visual objects used in forms and reports expose their methods and properties in the VBA programming environment, and VBA code modules may declare and call Windows operating system functions.

3. SYSTEM ANALYSIS

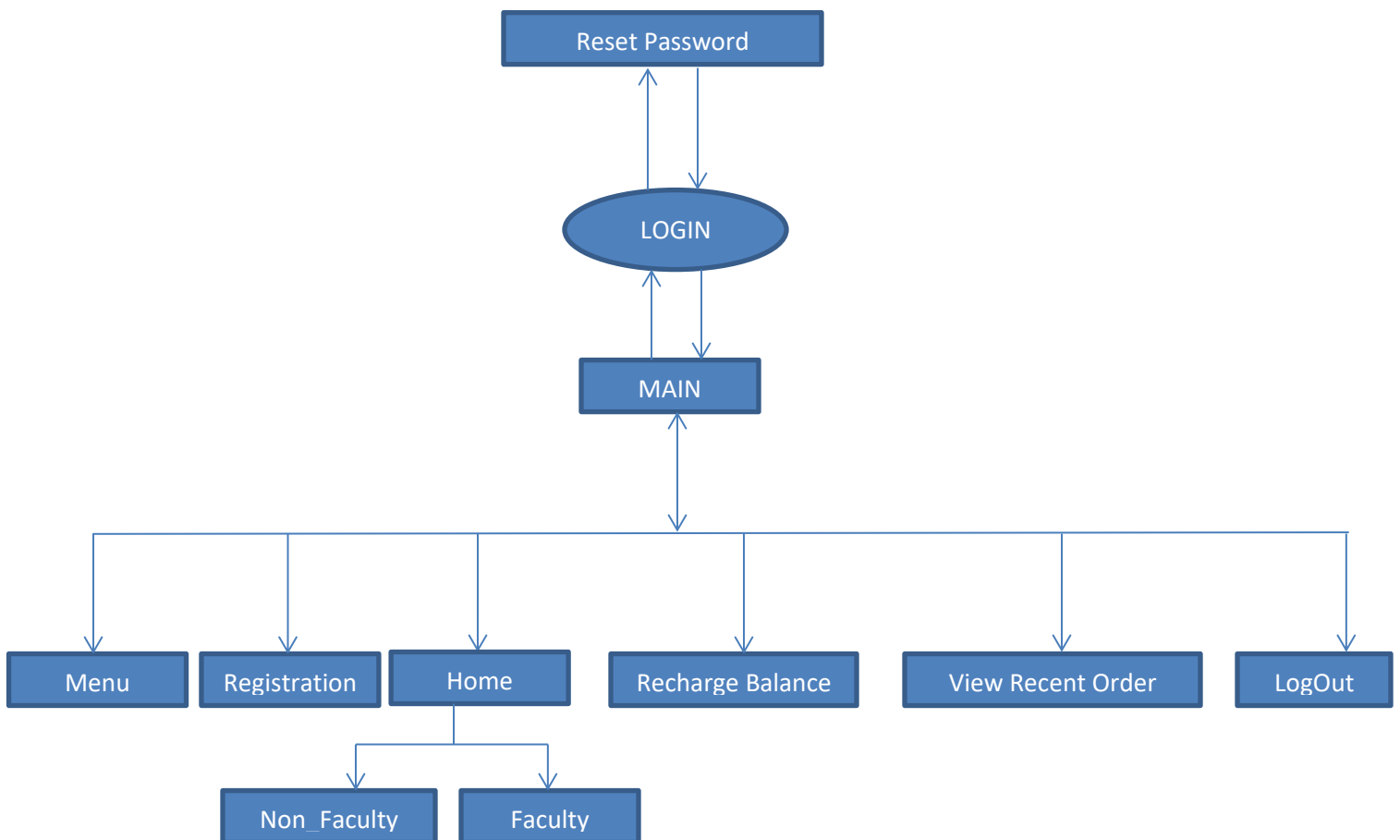# 3.1 Data Flow Diagram

Zero-level:

First-level:

Fig.1 Data Flow Diagram
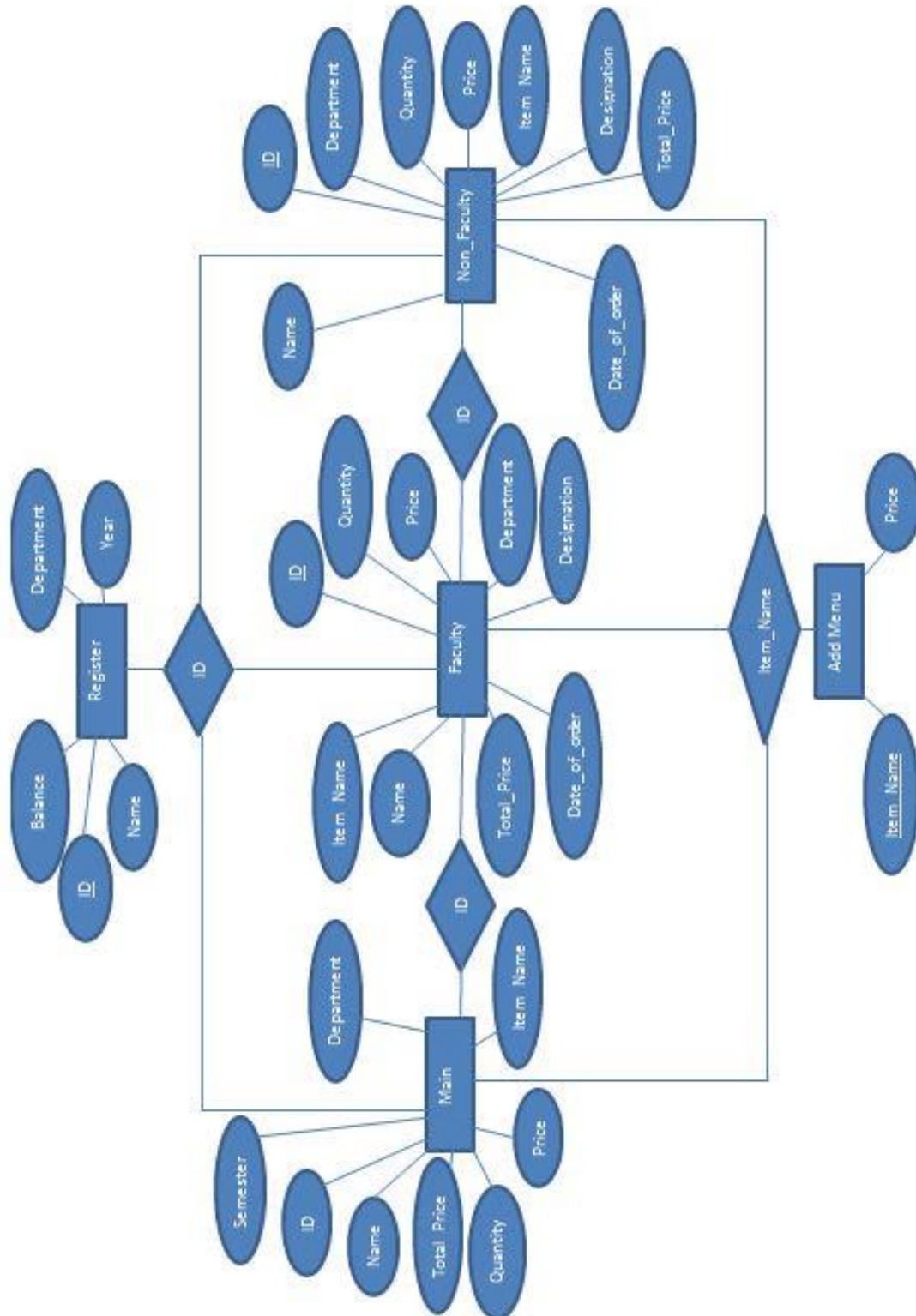
3.2 Entity Relationship Diagram
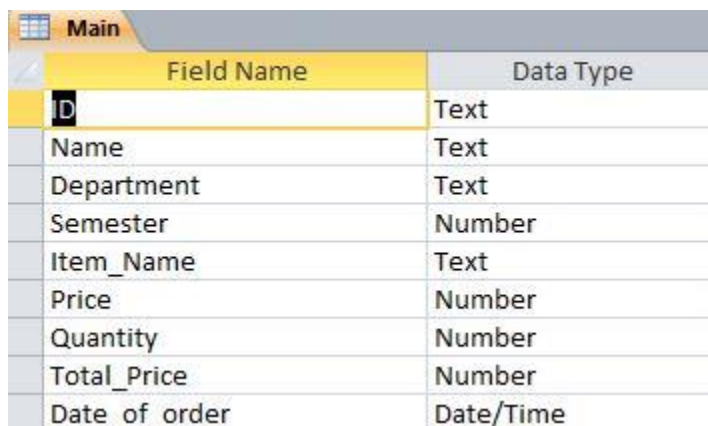
Fig.2 Entity Relationship Diagram

3.3 Physical and Logical Structure

3.3.1 Database Design

The backend of the project is created by using Microsoft Access-a pseudo relation database system. A database is created first which consist of five different records or tables. These records store necessary data and information in different fields according to the input of the user. The backend-Microsoft Access can be connected from the frontend-Visual studio 2010 using OLEDB.ACE.

The five different tables that we create using Microsoft Access are shown as below:
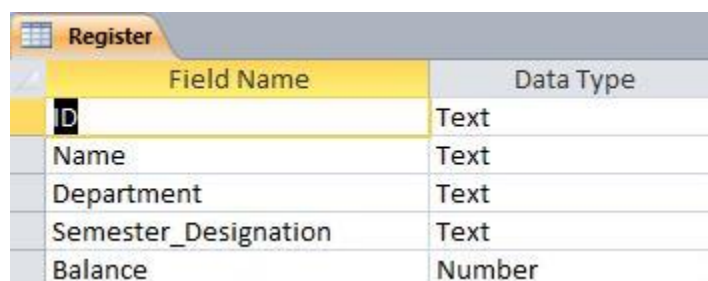
Table Name=Main

Field Name	Data Type
ID	Text
Name	Text
Department	Text
Semester	Number
Item_Name	Text
Price	Number
Quantity	Number
Total_Price	Number
Date_of_order	Date/Time

Fig.3 Database for Student's order record

Table Name=Register
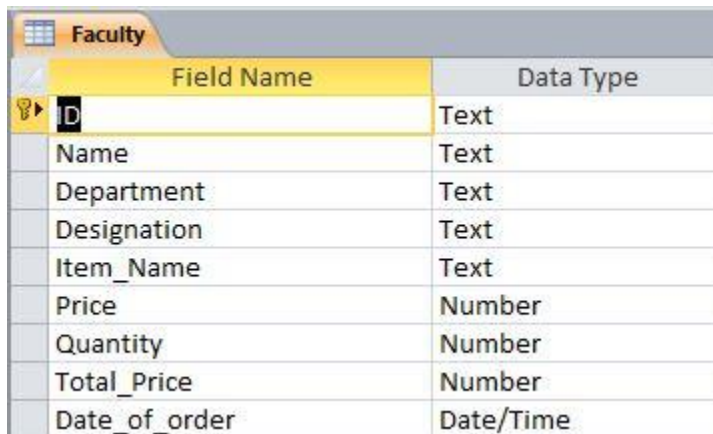
Field Name	Data Type
ID	Text
Name	Text
Department	Text
Semester_Designation	Text
Balance	Number

 Fig.4 Database for registration

Table Name=Faculty

Fig.5 Database for Faculty's order record

Table Name=Non-Faculty

Fig.6 Database for Non-Faculty's order record

Table Name=Non-Faculty

Fig.7 Database for adding menu

3.3.2 Table Relationships

The records of tables in the database are related to each other. The relationship of the five different tables- Main table, Register table, Faculty table, Non-Faculty table and AddMenu table are shown as below:
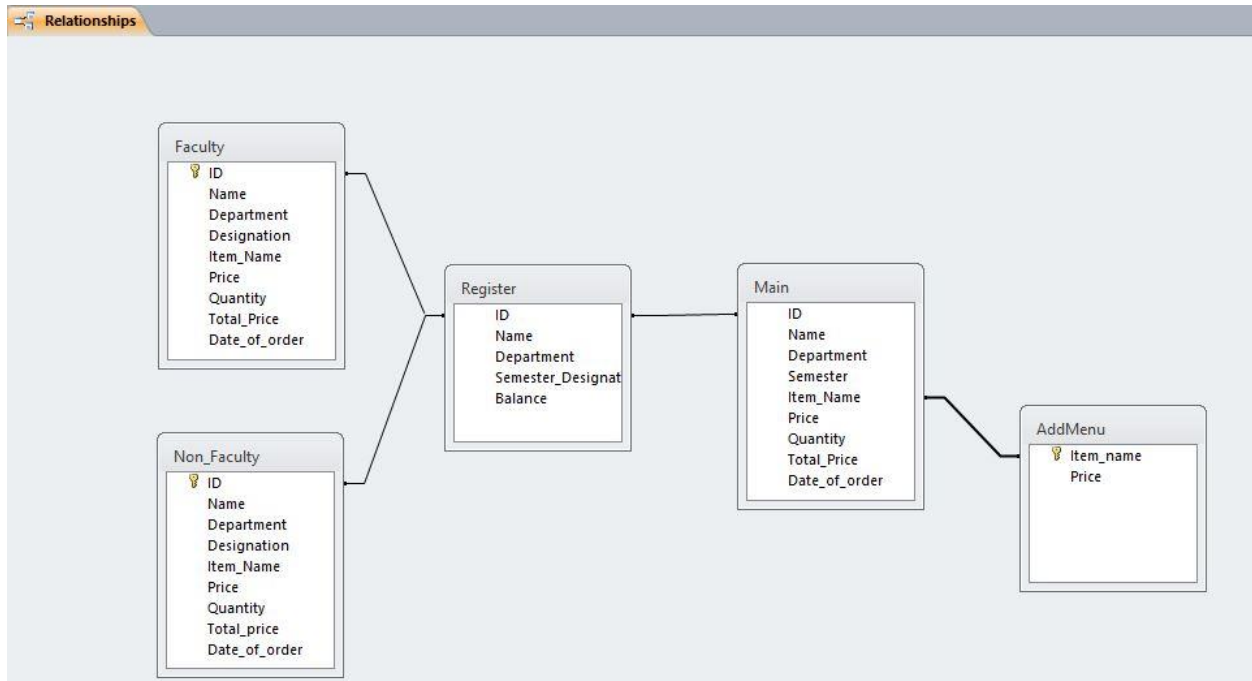
Fig.8 Table Relationship

4. SYSTEM DESIGN

LOGIN PAGE: This is the first page of our working window in the front-end.This page contain the textbox where the user will have to type the username and password to access the software. This gives privacy for the administrator as other who does not know the name and password cannot access through it.

Fig.9 Login Page

RESET PASSWORD: This page is for changing username and password of an already existing username and password.
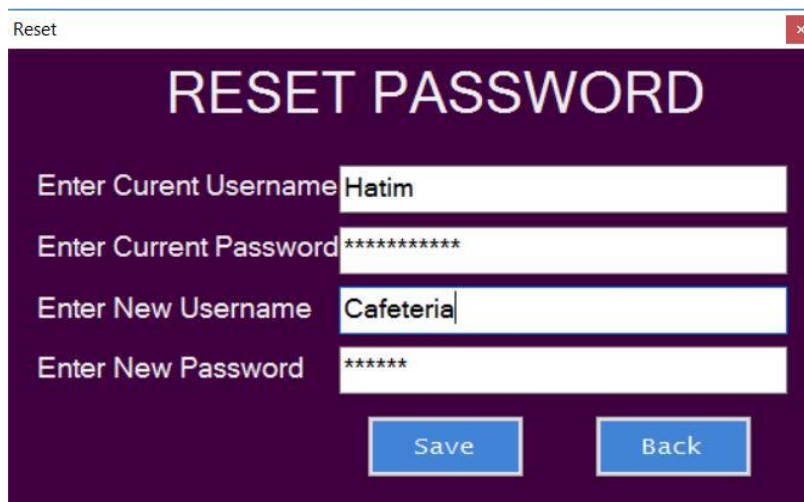
Fig.10 Reset Password Page

BCA601P: PROJECT WORK

FORGOT PASSWORD: This page is for resetting the password/username in case of forgetting the existing password/username by answering the security question that is provided by the software.
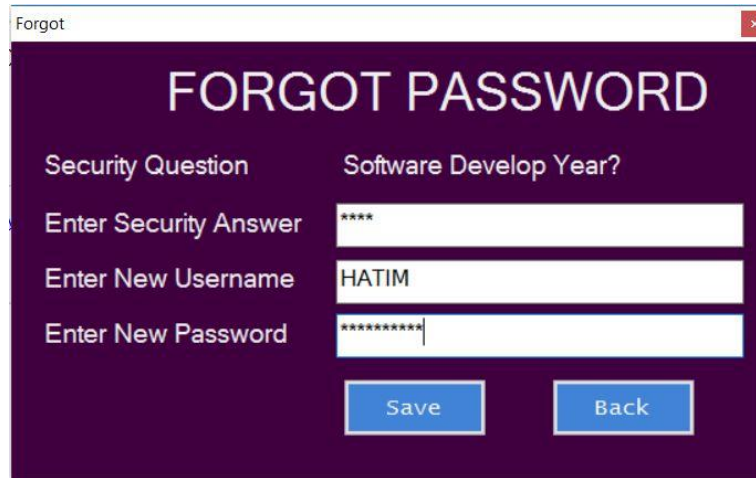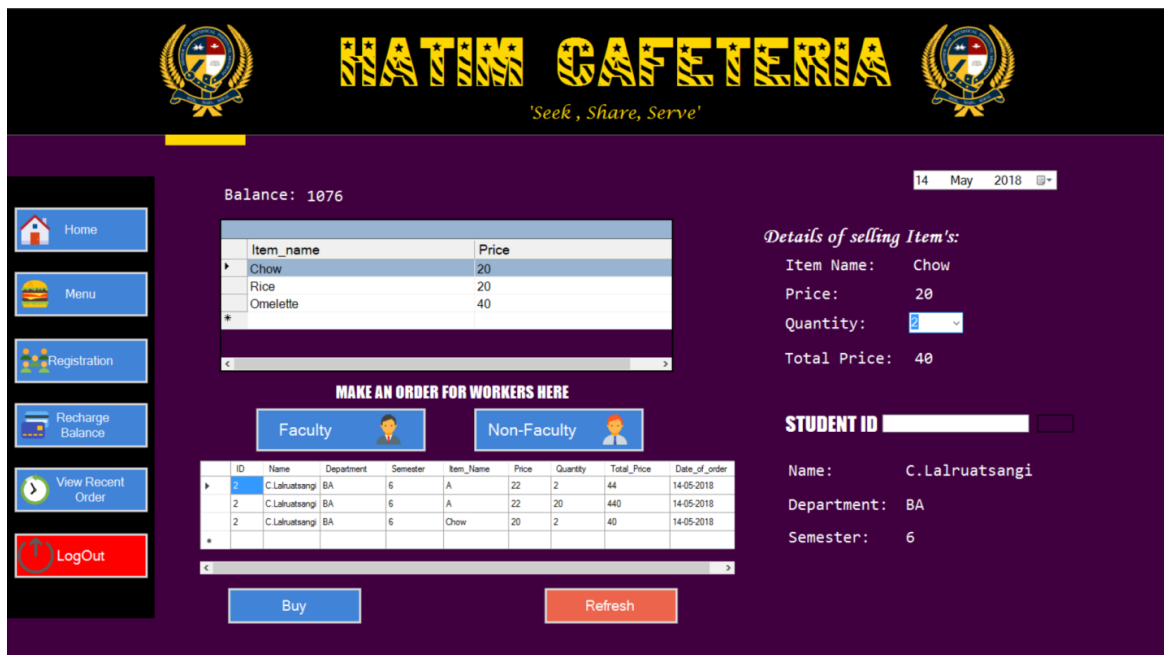
Fig.11 Forgot Password Page

HOME PAGE: This page first page after you login to the software. It provide the menu of different items, and the customer can order it by scanning their ID with barcode scanner. From this page different page can be visited like Add menu, Registration, Recharge Balance, View Recent Order.

Fig.12 Home Page

BCA601P: PROJECT WORK

MENU PAGE: This Page is for adding the menu items or it can be used to update and delete the existing menu.
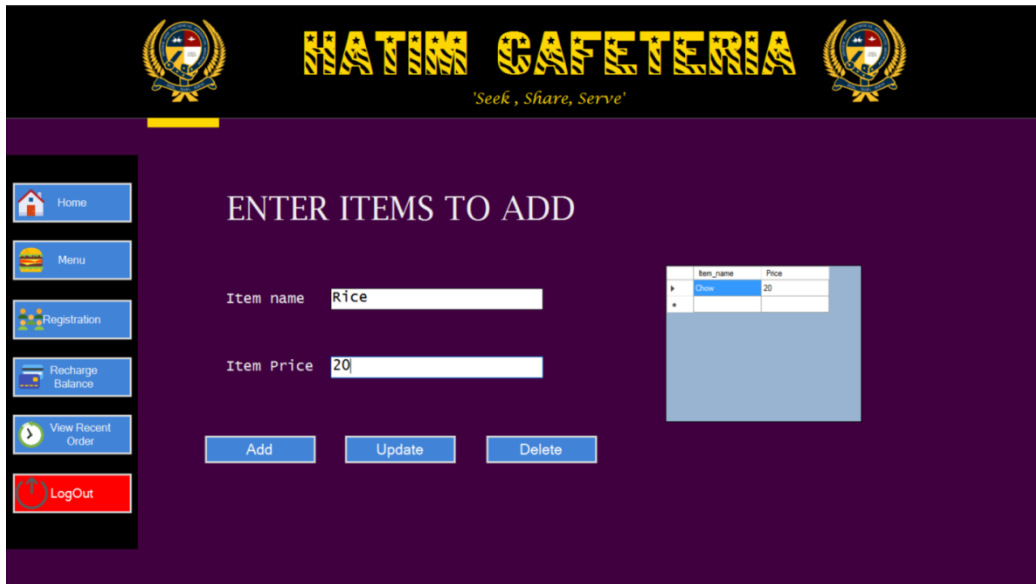
Fig.13 Menu Page

REGISTRATION PAGE: This page is for registering the new member of the institute or can be used to update or delete the existing member. This page is also provided a way to view all the members who has already registered.

Fig.14 Registration Page

BCA601P: PROJECT WORK

RECHARGE BALANCE: This page is for recharging a person's balance or can be used to clear remaining balance as per the amount that we entered.
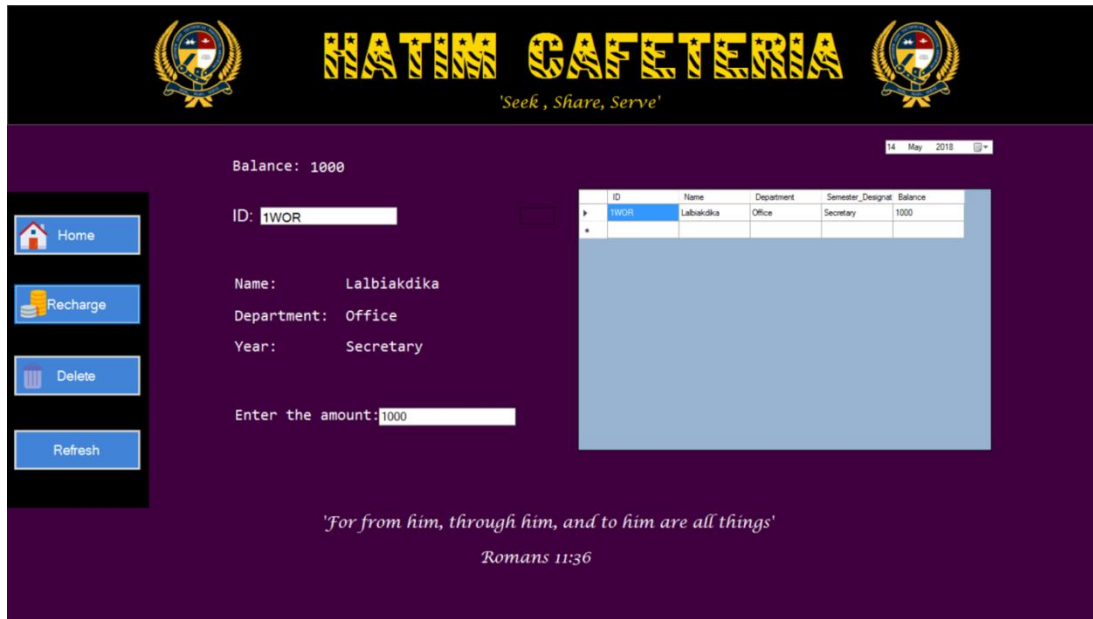
Fig.15 Recharge Balance Page

RECENT ORDER PAGE: This page is for viewing all the recent order that had been made in the past by entering the person's ID or can be used to delete the existing record.

Fig.16 Recent Order Page

BCA601P: PROJECT WORK

FACULTY PAGE: This page is for making an order for the faculty staff using their ID which contained name, department and designation.

Fig.17 Faculty Page

NON-FACULTY PAGE: This page is for making an order for the Non-faculty staff using their ID which contained name, department and designation.

Fig.18 Non-Faculty Page

5. CODING

5.1 LogIn Page:

Login Button:

```
Private Sub btnLogin_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnLogin.Click

        command1 = New OleDbCommand("Select UserName from LogIn where
ID='" & Reset.lblID1.Text & "'", Connection)
        command2 = New OleDbCommand("Select uPassword from LogIn where
ID='" & Reset.lblID1.Text & "'", Connection)
        Connection.Open()
        Dim A As String = command1.ExecuteScalar
        Dim B As String = command2.ExecuteScalar


        If textUser.Text = A And textPass.Text = B Then
            Me.Hide()
            Main.Show()
            textUser.Text = ""
            textPass.Text = ""
        Else
            MessageBox.Show("Incorrect   Username/Password",   "Access
Denied", MessageBoxButtons.OK, MessageBoxIcon.Exclamation)
            textUser.Text = ""
            textPass.Text = ""
        End If
        Connection.Close()
    End Sub
```

Reset Password Button:

```
Private Sub btnReset_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnReset.Click
        Reset.Show()
        Me.Hide()
        textUser.Text = ""
        textPass.Text = ""
    End Sub
```

Exit Button:

```vbnet
Private Sub btnExit_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnExit.Click
        textUser.Text = ""
        textPass.Text = ""
        Me.Close()
    End Sub
```

Forgot Password text:

```vbnet
Private Sub lblForgot_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles lblForgot.Click
        Me.Hide()
        Forgot.Show()
        textUser.Text = ""
        textPass.Text = ""
    End Sub
```

5.2 Reset Password Page:

```vbnet
Imports System.Data.OleDb
Public Class Reset
    Dim DA As OleDbDataAdapter
    Dim DS As DataSet
    Dim                 connection                    As              New
OleDbConnection("Provider=microsoft.ACE.OLEDB.12.0;Data
source=|DataDirectory|/Cafe.accdb")
    Dim command1 As OleDbCommand
    Dim command2 As OleDbCommand
    Dim command3 As OleDbCommand
```

Save Button:

```vb
Private Sub btnResetSave_Click(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles btnResetSave.Click
        If textResetCurrentUser.Text = "" Then
            MsgBox("Please enter current Username")
        ElseIf textResetCurrentPw.Text = "" Then
            MsgBox("Please enter current Password")
        ElseIf textResetNewUser.Text = "" Then
            MsgBox("New UserName cannot be empty")
        ElseIf textResetNewPw.Text = "" Then
            MsgBox("New Password cannot be empty")

        Else
DA = New OleDbDataAdapter("Select * from LogIn where UserName= '" &
textResetCurrentUser.Text  &  "'  and  uPassWord  ='"  &
textResetCurrentPw.Text & "'", connection)
            DS = New DataSet("Cheese")
            DA.Fill(DS, "Cheese")
            If DS.Tables("Cheese").Rows.Count <> 1 Then
                MsgBox("Incorrect Username/Password")
            Else
                command1  =  New  OleDbCommand("Update  LogIn  set
UserName=  '"  &  textResetNewUser.Text  &  "',uPassWord=  '"  &
textResetNewPw.Text  &  "'  where  ID  =  '"  &  lblID1.Text  &  "'",
connection)

                connection.Open()
                command1.ExecuteNonQuery()
                connection.Close()
                MsgBox("Update Successfully")
                textResetCurrentPw.Text = ""
                textResetCurrentUser.Text = ""
                textResetNewPw.Text = ""
                textResetNewUser.Text = ""
                textResetCurrentUser.Text = ""
                textResetCurrentPw.Text = ""
                textResetNewUser.Text = ""
                textResetNewPw.Text = ""

            End If
        End If
    End Sub
```

Back Button:

```vb
Private Sub btnResetBack_Click(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles btnResetBack.Click
        Me.Close()
        LogIn.Show()
        textResetCurrentUser.Text = ""
        textResetCurrentPw.Text = ""
        textResetNewPw.Text = ""
        textResetNewUser.Text = ""
    End Sub
```

<u>5.3 Forgot Password Page</u>:

Save Button:

```vb
Private Sub btnForgotSave_Click(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles btnForgotSave.Click
        command1 = New OleDbCommand("Select UserName from LogIn where
ID='" & lblID2.Text & "'", connection)
        command2 = New OleDbCommand("Select uPassWord from LogIn where
ID='" & lblID2.Text & "'", connection)
        connection.Open()

        Dim A As String = command1.ExecuteScalar
        Dim B As String = command2.ExecuteScalar

        lblSecurityQuestion.Text = A
        connection.Close()

        If textSecurity.Text = B Then
            connection.Open()
            command1 = New OleDbCommand("Update LogIn set UserName= '"
& textForgotUser.Text & "',uPassWord=  '" & textForgotPass.Text & "'
where ID = '" & lblID1.Text & "'", connection)
            command1.ExecuteNonQuery()
            MsgBox("Update Successfully")
            connection.Close()

            textForgotPass.Text = ""
            textForgotUser.Text = ""
            textSecurity.Text = ""
```

```
        Else
            MsgBox("Your answer is not correct, plese try again!")
        End If
    End Sub
```

Back Button:

```
    Private  Sub  btnForgotBack_Click(ByVal  sender  As  System.Object,
ByVal e As System.EventArgs) Handles btnForgotBack.Click
        Me.Close()
        LogIn.Show()
    End Sub
```

<u>5.4 Home page:</u>

```
    If lblBalance.Text <= 0 Then
        MessageBox.Show("No balance")
    ElseIf Val(lblBalance.Text) < Val(lblTotal.Text) Then
        MessageBox.Show("Insufficient balance")
    Else


        Con.Open()

        com   =   New   OleDbCommand("Insert   into   Main   (ID,
Name,Department,Semester,Item_Name,Price,Quantity,Total_Price,Date_of_
order) Values ('" & TextBox1.Text & "', '" & lblIDName.Text & "','" &
lblIDdept.Text & "'," & lblIDsemester.Text & ",'" & lblName.Text &
"'," & lblPrice.Text & "," & comboQuantity.Text & "," & lblTotal.Text
& ", '" & DateTimePicker1.Text & "') ", Con)
        command1 = New OleDbCommand("Update  Register  set  Balance=
Val(" & lblBalance.Text & ")- Val(" & lblTotal.Text & ") where ID='" &
TextBox1.Text & "' ", Con)
        command2 = New OleDbCommand("Select  Balance  from  Register
where ID = '" & TextBox1.Text & "'", Con)
        Dim A As String = com.ExecuteScalar
        MessageBox.Show("Buy Successfully")
        Dim B As String = command1.ExecuteScalar
        Dim C As String = command2.ExecuteScalar
        lblBalance.Text = C
        Con.Close()
```

```vb
            DA = New OleDbDataAdapter("Select * from Main where ID =
'" & TextBox1.Text & "'", Con)
            Ds = New DataSet("Dir")
            DA.Fill(Ds, "Dir")
            DataGridView1.DataMember = "Dir"
            DataGridView1.DataSource = Ds
            DataGridView1.AutoResizeColumns()
            lblName.Text = ""
            lblPrice.Text = ""
            lblTotal.Text = ""
            comboQuantity.Text = ""

        End If
    End Sub
```

Refresh Button:

```vb
Private Sub btnRefresh_Click_1(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles btnRefresh.Click
        lblIDdept.Text = ""
        lblIDName.Text = ""
        lblIDsemester.Text = ""
        lblBalance.Text = ""
        lblName.Text = ""
        lblPrice.Text = ""
        lblTotal.Text = ""
        comboQuantity.Text = ""
        DataGridView1.Refresh()
    End Sub
```

ID Button:

```vb
Private Sub Button1_Click_1(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        If TextBox1.Text = "" Then
            MsgBox("No entry, please enter your bar code!")
        Else

            DA = New OleDbDataAdapter("Select * from Register where
ID= '" & TextBox1.Text & "'", Con)
            Ds = New DataSet("jora")
            DA.Fill(Ds, "jora")
```

```vb
            If Ds.Tables("jora").Rows.Count <> 1 Then
                MsgBox("Incorrect ID/Data not registered")
            Else
                command1 = New OleDbCommand("Select Name from Register
where ID='" & TextBox1.Text & "'", Con)
                command2 = New OleDbCommand("Select Department from
Register where ID='" & TextBox1.Text & "'", Con)
                command3          =         New         OleDbCommand("Select
Semester_Designation from Register where ID='" & TextBox1.Text & "'",
Con)
                command4   =  New  OleDbCommand("Select  Balance  from
Register where ID='" & TextBox1.Text & "'", Con)



                Con.Open()

                Dim A As String = command1.ExecuteScalar
                Dim B As String = command2.ExecuteScalar
                Dim C As String = command3.ExecuteScalar
                Dim D As String = command4.ExecuteScalar

                lblIDName.Text = A
                lblIDdept.Text = B
                lblIDsemester.Text = C
                lblBalance.Text = D
                Con.Close()
            End If
        End If
    End Sub
```

5.5 Registration page:

Save button:
```vb
Private Sub Savebtn_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Savebtn.Click
        If IDtext.Text = "" Then
            MsgBox("Provode Student ID")
        ElseIf NAmetext.Text = "" Then
            MsgBox("Provide Name")
        ElseIf Depttext.Text = "" Then
            MsgBox("Provide Department name")
        ElseIf Semtext.Text = "" Then
            MsgBox("Provide Semester")
```

```vbnet
        Else

            Con.Open()
            DA = New OleDbDataAdapter("Select * from Register where
ID='" & IDtext.Text & "'", Con)
            Ds = New DataSet("Dir")
            DA.Fill(Ds, "Dir")
            If Ds.Tables("Dir").Rows.Count = 1 Then
                MsgBox("Cannot have the same ID, Please choose another
ID")
            Else
                command1 = New OleDbCommand(" Insert into Register
(ID, Name,Department,Semester_Designation,Balance) values( '" &
IDtext.Text & "', '" & NAmetext.Text & "', '" & Depttext.Text & "', '"
& Semtext.Text & "'," & lblBlc.Text & ")", Con)
                command1.ExecuteNonQuery()
                MessageBox.Show("Saved Successfully")

                DA = New OleDbDataAdapter("Select * from Register
where ID = '" & IDtext.Text & "'", Con)
                Ds = New DataSet("Dir")
                DA.Fill(Ds, "Dir")
                DataGridView2.DataMember = "Dir"
                DataGridView2.DataSource = Ds
                Con.Close()
                IDtext.Text = ""
                NAmetext.Text = ""
                Depttext.Text = ""
                Semtext.Text = ""
            End If
        End If
    End Sub
```

Update Button:

```vbnet
Private Sub Updatebtn_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Updatebtn.Click
        If IDtext.Text = "" Then
            MsgBox("Please provide ID")
        Else
            command1 = New OleDbCommand("Update Register set Name= '"
& NAmetext.Text & "', Department ='" & Depttext.Text & "',
Semester_Designation= " & Semtext.Text & " where ID = '" & IDtext.Text
& "' ", Con)
```

```
        Con.Open()
        command1.ExecuteNonQuery()
        Con.Close()
        MsgBox("Update Successfully")

        DA = New OleDbDataAdapter("Select * from Register where Id
= '" & IDtext.Text & "'", Con)
        Ds = New DataSet("Dir")
        DA.Fill(Ds, "Dir")
        DataGridView2.DataMember = "Dir"
        DataGridView2.DataSource = Ds
        IDtext.Text = ""
        NAmetext.Text = ""
        Depttext.Text = ""
        Semtext.Text = ""
    End If
  End Sub
```

Delete Button:

```
Private Sub Delbtn_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Delbtn.Click
      If IDtext.Text = "" Then
          MsgBox("Please provide ID")
      ElseIf MessageBox.Show("Are you sure you want to delete the
student's Information.", "Notification", MessageBoxButtons.OKCancel,
MessageBoxIcon.Exclamation,      MessageBoxDefaultButton.Button2)      =
DialogResult.OK Then
          command1 = New OleDbCommand("Delete from register where
ID='" & IDtext.Text & "'", Con)
          Con.Open()
          command1.ExecuteNonQuery()
          Con.Close()
          MsgBox("File has been deleted")
          DA = New OleDbDataAdapter("Select * from Register", Con)
          Ds = New DataSet("Dir")
          DA.Fill(Ds, "Dir")
          DataGridView2.DataMember = "Dir"
          DataGridView2.DataSource = Ds
          IDtext.Text = ""
          NAmetext.Text = ""
          Depttext.Text = ""
          Semtext.Text = ""
      End If
  End Sub
```

View Student List Button:

```
Private Sub Viewbtn_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Viewbtn.Click
        DA = New OleDbDataAdapter("Select * from Register", Con)
        Ds = New DataSet("Dir")
        DA.Fill(Ds, "Dir")
        DataGridView2.DataMember = "Dir"
        DataGridView2.DataSource = Ds
    End Sub

End Class
```

5.6 Menu Page:

Add button:

```
Private Sub btnMenuSave_Click(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles btnMenuSave.Click

        If textItem.Text = "" Then
            MsgBox("No entry, please enter item!")
        Else
            Con.Open()
            command1 = New OleDbCommand("Insert into AddMenu
(Item_Name,Price) Values ('" & textItem.Text & "', '" & textPrice.Text
& "') ", Con)
            command1.ExecuteNonQuery()

            MsgBox("Saved Successfully")
            Con.Close()
            DA = New OleDbDataAdapter("Select * from AddMenu", Con)
            Ds = New DataSet("Dir")
            DA.Fill(Ds, "Dir")
            DataGridView4.DataMember = "Dir"
            DataGridView4.DataSource = Ds
            Refresh1()
            textItem.Text = ""
            textPrice.Text = ""

        End If
    End Sub
```

Update button:

```vb
Private Sub btnMenuUpt_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnMenuUpt.Click
        If textItem.Text = "" Then
            MessageBox.Show("Item name is not given..!!")
        ElseIf textPrice.Text = "" Then
            MessageBox.Show("Price is not given..!!")
        Else
            Con.Open()
            command1 = New OleDbCommand("Update AddMenu set Item_Name
=' " & textItem.Text & " ', Price =" & textPrice.Text & " where
Item_Name = '" & textItem.Text & "'", Con)
            command1.ExecuteNonQuery()
            MsgBox("Item_Name  '" &  textItem.Text  &  "'has  been
modified")
            Con.Close()
            DA = New OleDbDataAdapter("Select * from AddMenu", Con)
            Ds = New DataSet("Dir")
            DA.Fill(Ds, "Dir")
            DataGridView4.DataMember = "Dir"
            DataGridView4.DataSource = Ds
        End If
        textItem.Text = ""
        textPrice.Text = ""
    End Sub
```

Delete Button:

```vb
Private Sub btnMenuDel_Click_1(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles btnMenuDel.Click
        If textItem.Text = "" Then
            MsgBox("Please provide Item_Name")
        ElseIf textPrice.Text = "" Then
            MsgBox("Please provide Price")
        Else
            Con.Open()
            com = New OleDbCommand("Delete from AddMenu where
Item_Name = '" & textItem.Text & "'", Con)

            com.ExecuteNonQuery()
            Con.Close()
            MsgBox("File has been removed from the source")
            DA = New OleDbDataAdapter("Select * from AddMenu", Con)
```

```
            Ds = New DataSet("Dir")
            DA.Fill(Ds, "Dir")
            DataGridView4.DataMember = "Dir"
            DataGridView4.DataSource = Ds
            Refresh1()
            textItem.Text = ""
            textPrice.Text = ""
        End If
    End Sub
```

5.7 View recent order page:

Ok button:

```
Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnView.Click
        If textView.Text = "" Then
            MsgBox("No entry, please enter your bar code!")
        ElseIf ComboBox1.Text = Faculty.Text Then
            Con.Open()
            DA = New OleDbDataAdapter("Select * from Faculty where ID=
'" & textView.Text & "'", Con)
            Ds = New DataSet("Dir")
            DA.Fill(Ds, "Dir")
            DataGridView3.DataMember = "Dir"
            DataGridView3.DataSource = Ds

            Con.Close()
            textView.Text = ""
        ElseIf ComboBox1.Text = Non_Faculty.Text Then
            Con.Open()
            DA = New OleDbDataAdapter("Select * from Non_Faculty where
ID= '" & textView.Text & "'", Con)
            Ds = New DataSet("Dir")
            DA.Fill(Ds, "Dir")
            DataGridView3.DataMember = "Dir"
            DataGridView3.DataSource = Ds

            Con.Close()
            textView.Text = ""
        Else
            Con.Open()
            DA = New OleDbDataAdapter("Select * from Main where ID= '"
& textView.Text & "'", Con)
```

```
        Ds = New DataSet("Dir")
        DA.Fill(Ds, "Dir")
        DataGridView3.DataMember = "Dir"
        DataGridView3.DataSource = Ds

        Con.Close()
        textView.Text = ""
    End If
End Sub
```

Delete Record Button:

```
    Private Sub btnDelView_Click(ByVal sender As System.Object, ByVal
e As System.EventArgs) Handles btnDelView.Click
        If textView.Text = "" Then
            MsgBox("No entry, please enter your bar code!")

        ElseIf ComboBox1.Text = Faculty.Text Then
            Con.Open()
            DA = New OleDbDataAdapter("Delete from Faculty where ID=
'" & textView.Text & "'", Con)
            MessageBox.Show("File has been deleted")
            Ds = New DataSet("Dir")
            DA.Fill(Ds, "Dir")
            DataGridView3.DataMember = "Dir"
            DataGridView3.DataSource = Ds

            Con.Close()
            textView.Text = ""
        ElseIf ComboBox1.Text = Non_Faculty.Text Then
            Con.Open()
            DA = New OleDbDataAdapter("Delete from Non_Faculty where
ID= '" & textView.Text & "'", Con)
            MessageBox.Show("File has been deleted")
            Ds = New DataSet("Dir")
            DA.Fill(Ds, "Dir")
            DataGridView3.DataMember = "Dir"
            DataGridView3.DataSource = Ds

            Con.Close()
            textView.Text = ""
```

```vb
        Else
            Con.Open()
            DA = New OleDbDataAdapter("Delete from Main where ID= '" &
textView.Text & "'", Con)
            MessageBox.Show("File has been deleted")
            Ds = New DataSet("Dir")
            DA.Fill(Ds, "Dir")
            DataGridView3.DataMember = "Dir"
            DataGridView3.DataSource = Ds
            textView.Text = ""
            Con.Close()
        End If
    End Sub
```

5.8 Recharge Page:

Button4:

```vb
Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button4.Click
        If TB.Text = "" Then
            MsgBox("No entry, please enter your bar code!")
        Else

            DA = New OleDbDataAdapter("Select * from Register where
ID= '" & TB.Text & "'", Con)
            Ds = New DataSet("jora")
            DA.Fill(Ds, "jora")
            If Ds.Tables("jora").Rows.Count <> 1 Then
                MsgBox("Incorrect ID/Data not registered")
            Else
                command1 = New OleDbCommand("Select Name from Register
where ID='" & TB.Text & "'", Con)
                command2 = New OleDbCommand("Select Department from
Register where ID='" & TB.Text & "'", Con)
                command3 = New OleDbCommand("Select
Semester_Designation from Register where ID='" & TB.Text & "'", Con)
                command4 = New OleDbCommand("Select Balance from
Register where ID='" & TB.Text & "'", Con)
                Con.Open()

                Dim A As String = command1.ExecuteScalar
```

```
            Dim B As String = command2.ExecuteScalar
            Dim C As String = command3.ExecuteScalar
            Dim D As String = command4.ExecuteScalar

            lblIDName.Text = A
            lblIDdept.Text = B
            lblIDyear.Text = C
            lblBalance.Text = D
            Con.Close()
        End If
    End If
End Sub
```

Recharge button:

```
Private Sub btnUpdateRec_Click(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles btnUpdateRec.Click
    If TB.Text = "" Then
        MsgBox("No entry, please enter your ID!")
    Else
        Con.Open()
        command1 = New OleDbCommand("Update Register set Balance=
Val(" & textBalance.Text & ")+ Val(" & lblBalance.Text & ") where
ID='" & TB.Text & "' ", Con)
        command2 = New OleDbCommand("Select Balance from Register
where ID = '" & TB.Text & "'", Con)
        Dim A As String = command1.ExecuteScalar
        MessageBox.Show("Saved Successfully")
        Dim B As String = command2.ExecuteScalar
        lblBalance.Text = B
        DA = New OleDbDataAdapter("Select * from Register where ID
= '" & TB.Text & "'", Con)
        Ds = New DataSet("Dir")
        DA.Fill(Ds, "Dir")
        DataGridView3.DataMember = "Dir"
        DataGridView3.DataSource = Ds

        Con.Close()


    End If
End Sub
```

Delete Button:

```vb
    Private Sub btnDeleteRec_Click(ByVal sender As System.Object, ByVal
e As System.EventArgs) Handles btnDeleteRec.Click
        If TB.Text = "" Then
            MsgBox("No entry, please enter your ID!")
        Else
            Con.Open()
            command1 = New OleDbCommand("Update Register set Balance=
Val(" & lblBalance.Text & ")- Val(" & textBalance.Text & ") where
ID='" & TB.Text & "' ", Con)
            command2 = New OleDbCommand("Select Balance from Register
where ID = '" & TB.Text & "'", Con)
            Dim A As String = command1.ExecuteScalar
            MessageBox.Show("Deleted Successfully")
            Dim B As String = command2.ExecuteScalar
            lblBalance.Text = B
            DA = New OleDbDataAdapter("Select * from Register where ID
= '" & TB.Text & "'", Con)
            Ds = New DataSet("Dir")
            DA.Fill(Ds, "Dir")
            DataGridView3.DataMember = "Dir"
            DataGridView3.DataSource = Ds

            Con.Close()
        End If
    End Sub
```

Refresh Button:

```vb
    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        TB.Text = ""
        textBalance.Text = ""
        lblIDdept.Text = ""
        lblIDName.Text = ""
        lblIDyear.Text = ""
        lblBalance.Text = ""
    End Sub
```

Home Button:

```vb
Private Sub btnHome_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnHome.Click
        Main.Show()
```

```
        Me.Close()
        Main.Panel3.BringToFront()
    End Sub
```

5.9 Faculty Page:

Button1:

```vb
  Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        If TextBox1.Text = "" Then
            MsgBox("No entry, please enter your bar code!")
        Else

            DA = New OleDbDataAdapter("Select * from Register where
ID= '" & TextBox1.Text & "'", Con)
            Ds = New DataSet("jora")
            DA.Fill(Ds, "jora")
            If Ds.Tables("jora").Rows.Count <> 1 Then
                MsgBox("Incorrect ID/Data not registered")
            Else
                command1 = New OleDbCommand("Select Name from Register
where ID='" & TextBox1.Text & "'", Con)
                command2 = New OleDbCommand("Select Department from
Register where ID='" & TextBox1.Text & "'", Con)
                command3 = New OleDbCommand("Select
Semester_Designation from Register where ID='" & TextBox1.Text & "'",
Con)
                command4 = New OleDbCommand("Select Balance from
Register where ID='" & TextBox1.Text & "'", Con)

                Con.Open()

                Dim A As String = command1.ExecuteScalar
                Dim B As String = command2.ExecuteScalar
                Dim C As String = command3.ExecuteScalar
                Dim D As String = command4.ExecuteScalar

                lblIDName.Text = A
                lblIDdept.Text = B
                lblIDsemester.Text = C
                lblBalance.Text = D
                Con.Close()
            End If
```

```vb
        End If
    End Sub
```

Buy Button:

```vb
Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
        If lblBalance.Text <= 0 Then
            MessageBox.Show("No balance")
        ElseIf Val(lblBalance.Text) < Val(lblTotal.Text) Then
            MessageBox.Show("Insufficient balance")
        Else
            Con.Open()

            com   =   New   OleDbCommand("Insert   into   Faculty   (ID,
Name,Department,Designation,Item_Name,Price,Quantity,Total_Price,Date_
of_order) Values ('" & TextBox1.Text & "', '" & lblIDName.Text & "','"
& lblIDdept.Text & "','" & lblIDsemester.Text & "','" & lblName.Text &
"'," & lblPrice.Text & "," & comboQuantityF.Text & "," & lblTotal.Text
& ", '" & DateTimePicker1.Text & "') ", Con)
            command1 = New OleDbCommand("Update Register set Balance=
Val(" & lblBalance.Text & ")- Val(" & lblTotal.Text & ") where ID='" &
TextBox1.Text & "' ", Con)
            command2 = New OleDbCommand("Select Balance from Register
where ID = '" & TextBox1.Text & "'", Con)
            Dim A As String = com.ExecuteScalar
            MessageBox.Show("Buy Successfully")
            Dim B As String = command1.ExecuteScalar
            Dim C As String = command2.ExecuteScalar
            lblBalance.Text = C
            Con.Close()
            DA = New OleDbDataAdapter("Select * from Faculty where ID
= '" & TextBox1.Text & "'", Con)
            Ds = New DataSet("Dir")
            DA.Fill(Ds, "Dir")
            DataGridView1.DataMember = "Dir"
            DataGridView1.DataSource = Ds
            DataGridView1.AutoResizeColumns()
            lblName.Text = ""
            lblPrice.Text = ""
            lblTotal.Text = ""
            comboQuantityF.Text = ""
        End If
    End Sub
```

Refresh Button:

```vb
Private Sub btnRefresh_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        lblIDdept.Text = ""
        lblIDName.Text = ""
        lblIDsemester.Text = ""
        lblBalance.Text = ""
        lblName.Text = ""
        lblPrice.Text = ""
        lblTotal.Text = ""
        comboQuantityF.Text = ""
        TextBox1.Text = ""
    End Sub
```

Home Button:

```vb
Private Sub btnHome_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnHome.Click
        Main.Show()
        Me.Hide()
        Main.Panel3.BringToFront()
    End Sub
```

5.10 Non-Faculty Page:

Ok Button:

```vb
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        If TextBox1.Text = "" Then
            MsgBox("No entry, please enter your bar code!")
        Else

        DA = New OleDbDataAdapter("Select * from Register where
ID= '" & TextBox1.Text & "'", Con)
        Ds = New DataSet("jora")
        DA.Fill(Ds, "jora")
        If Ds.Tables("jora").Rows.Count <> 1 Then
            MsgBox("Incorrect ID/Data not registered")
        Else
            command1 = New OleDbCommand("Select Name from Register
where ID='" & TextBox1.Text & "'", Con)
```

```
                command2  =  New  OleDbCommand("Select  Department  from
Register where ID='" & TextBox1.Text & "'", Con)
                command3       =       New       OleDbCommand("Select
Semester_Designation from Register where ID='" & TextBox1.Text & "'",
Con)
                command4  =  New  OleDbCommand("Select  Balance  from
Register where ID='" & TextBox1.Text & "'", Con)
                Con.Open()
                Dim A As String = command1.ExecuteScalar
                Dim B As String = command2.ExecuteScalar
                Dim C As String = command3.ExecuteScalar
                Dim D As String = command4.ExecuteScalar

                lblIDName.Text = A
                lblIDdept.Text = B
                lblIDsemester.Text = C
                lblBalance.Text = D
                Con.Close()
            End If
        End If
    End Sub
```

Buy Button:

```
Private Sub btnOkFac_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnOkFac.Click
        If lblBalance.Text <= 0 Then
            MessageBox.Show("No balance")
        ElseIf Val(lblBalance.Text) < Val(lblTotal.Text) Then
            MessageBox.Show("Insufficient balance")
        Else
            Con.Open()

            com  =  New  OleDbCommand("Insert  into  Non_Faculty  (ID,
Name,Department,Designation,Item_Name,Price,Quantity,Total_Price,Date_
of_order) Values ('" & TextBox1.Text & "', '" & lblIDName.Text & "','"
& lblIDdept.Text & "','" & lblIDsemester.Text & "','" & lblName.Text &
"'," & lblPrice.Text & "," & comboQuantityF.Text & "," & lblTotal.Text
& ", '" & DateTimePicker1.Text & "') ", Con)
            command1 = New OleDbCommand("Update Register set Balance=
Val(" & lblBalance.Text & ")- Val(" & lblTotal.Text & ") where ID='" &
TextBox1.Text & "' ", Con)
            command2 = New OleDbCommand("Select Balance from Register
where ID = '" & TextBox1.Text & "'", Con)
```

```vbnet
            Dim A As String = com.ExecuteScalar
            MessageBox.Show("Buy Successfully")
            Dim B As String = command1.ExecuteScalar
            Dim C As String = command2.ExecuteScalar
            lblBalance.Text = C
            Con.Close()
            DA = New OleDbDataAdapter("Select * from Non_Faculty where
ID = '" & TextBox1.Text & "'", Con)
            Ds = New DataSet("Dir")
            DA.Fill(Ds, "Dir")
            DataGridView1.DataMember = "Dir"
            DataGridView1.DataSource = Ds
            DataGridView1.AutoResizeColumns()
            lblName.Text = ""
            lblPrice.Text = ""
            lblTotal.Text = ""
            comboQuantityF.Text = ""
        End If
    End Sub
```

Refresh Button:

```vbnet
Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        lblIDdept.Text = ""
        lblIDName.Text = ""
        lblIDsemester.Text = ""
        lblBalance.Text = ""
        lblName.Text = ""
        lblPrice.Text = ""
        lblTotal.Text = ""
        comboQuantityF.Text = ""
        TextBox1.Text = ""
    End Sub
```

Home Button:

```vbnet
Private Sub btnHome_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnHome.Click
        Main.Show()
        Me.Close()
        Main.Panel3.BringToFront()
    End Sub
```

6. TESTING AND IMPLEMENTATION

6.1 Testing of the software

This software has undergone many series of test, and errors present in the software have been dealt with. But there may be unforeseen errors which are however unlikely. But the software will not face any problem anymore as it has multiple exception cases. As we have finish our project, we are proud to say that we have done a good job and we believe that the user of this software will get some benefit in one way or the other.

6.2 User Guide

Follow the instruction given below for the installation of the software.

1. Insert the disk or send the setup file to your computer.
2. Open the file named real IVM and inside that there is a setup file, run the setup.
3. Welcome Dialog Box will appear and then click next.
4. Select installation folder will appear. From here you can select the device where you want to install your software and then click next.
5. Confirmation dialog box will appear and then click next.
6. Wait for some time while the installation folder is in process. If it is successfully installed, the installation is completed. Dialog box will appear. Then click close.
7. Copy the database from the setup file into the installation folder. In fact, database must also be present where executable file is there.
8. Now, you can run the program from the shortcut.

7. LIMITATIONS AND DRAWBACKS

Although we tried our best to come up with a good and excellent software, but we could come up with this much. Being human, full of limitation and short coming, there are many limitations and drawbacks in our projects 'Cafeteria Management System'. Due to certain reasons that come up while our work is going on. Mainly because of limited tie.

So, we are basing on one particular cafeteria which deals with computer gadgets and devices, so many of our layouts cannot be applicable for the cafeteria other than HATIM cafeteria.

Due to limited knowledge of Visual Basic and MS Access, we have to confess that there will be a number of redundant code in the coding. And limitation of knowledge about crystal report and other part of the software we used, it cannot reach our planned.

8. CONCLUSION

It is a great pleasure for us to know that we could finish our project 'Cafeteria Management system' just because of God's mercy and the helping hand that we have got during the process of this project. During the time that we've made this project, we receive so many inspirational words and helping hands from our teachers and friends. Without the help of those, we were not able to finish it. We give thanks to them.

We know that our project has many limitation and drawbacks, but this software will be very useful to run the more efficient and easy way management for the cafeteria in the institution, with the help of this software, database and barcode scanner transaction and record can be more easier and less time consuming.

This project was made due to the problem that we face in our institution. It was built in such a manner that the user of this software will have a very easy access to every details of the customers and recordings the information of the order, and I is made in such a way that order cannot be made without having a sufficient balance.

It is a great pleasure for us to express our immense to our project guide Mr.H.Lalruatkima and Head of Department in Department of Computer Sciences Mr. Joseph Lalhunmawia for their inspirational guidance and help us to collected the requirements of the software.

Though this project may not be the best, but we try our best to create and we hope that the user of this software will find satisfaction in using it.

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