NEAR EAST UNIVERSITY

FACULTY OF ENGINEERING

Department Of Computer Engineering

A Commercial Application In Visual Basic

Graduation Project
COM 400

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Student # : 980762
Supervisor : Ms.Besime Erin

Lefkosa-2000

Dedication:

Dedicated to my parents and teachers for their continued guidance and prayers.

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Preface

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Taking into regard these facts I did my project in Visual Bsic 6.0 environment.

It is about a small firm, who wants to keep track of its overall as well as its employees performance.

Mainly I used sequential file access approach and the files were separately prepared in text editor.Stress is on power of tools available in Visual Basic environment to develop nice graphices user interface (GUI) programs which is source of powerful visual programming. The details are given in the coming pages.

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Project Statement

To develop a Visual Basic Application for a Commercial Firm .

Definition Of The Problem:

The given problem is to Develop a Visual Basic Application for a small firm, that wants to keep track of its overall as well as its employees performance. This firm has three Braches, each branch has two information files named **Main.txt** and **Trans.txt**. **Main.txt** has employees information and **Trans.txt** includes their Sales information. Both Files are in **sorted** order of their employee number and they were prepared separately.

There are total of **FIVE** forms in my application, they contain the following given Controls :

Textbox, *Picture Box*(*or Image Control*), *Label*, *Command Button*, *List Box*, *MsFlexGrid*, *Drive List Box*, *Directory List Box*, *File List Box*, *Menu* and possibly some other useful controls.

User Documentation :

When user First runs the program, a Form is displayed from which he is given the choice to perform 3 possible tasks i-e: he can Display **Selected Information**, some **Emplyees Information** or **Display All Information** about the company. He can do so by a number of ways. Fisrt of all he can choose any option from given menu, these menus also have shortcuts assigned to them and it could also be poped up by right clicking on the form. Additionally there is a Tool Bar which could be used for this same purpose. All these option give the user easy access to Program's features.

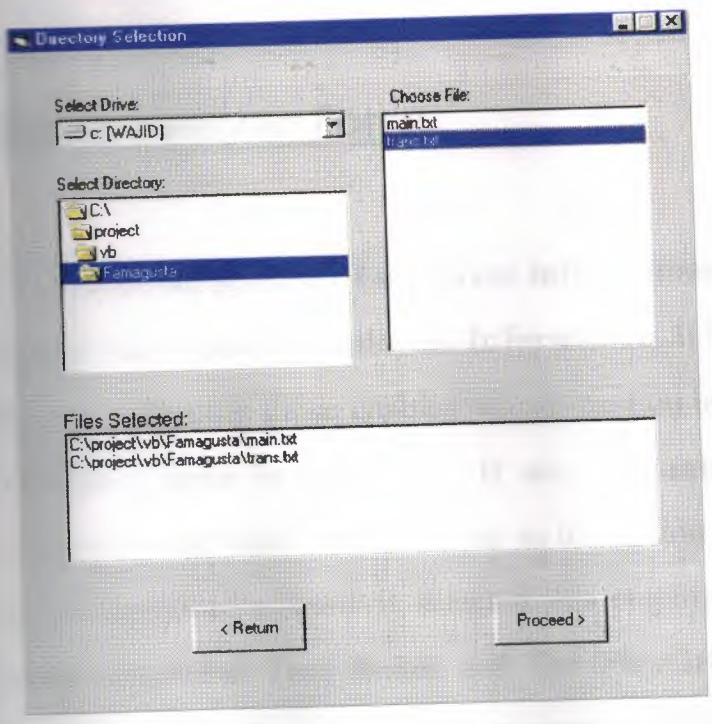
Application's Front Page

If user selects **Display Selected** or **Employee Information**, a Form for File Selection is displayed. In this form user should locate a pair of **Main.txt** and **Trans.txt** files. He can double click name of these files in *File List Box* to load them into a L*ist Box* which shows current selection. In case of some problem user may double click on unwanted file in this L*ist Box* to remove it. He may add files in any order **but** they should belong to same branch. After this selection is made, user may proceed by clicking on newly enabled command button or he may Go back by clicking .


Sales Employees Information Program [Main Menu]
Menu
Display Selected Ctrl+S
Employee information Ctrl+I
Display All Ctrl+A
Exit Ctrl+X
Exit
Quit

File Selection Form :

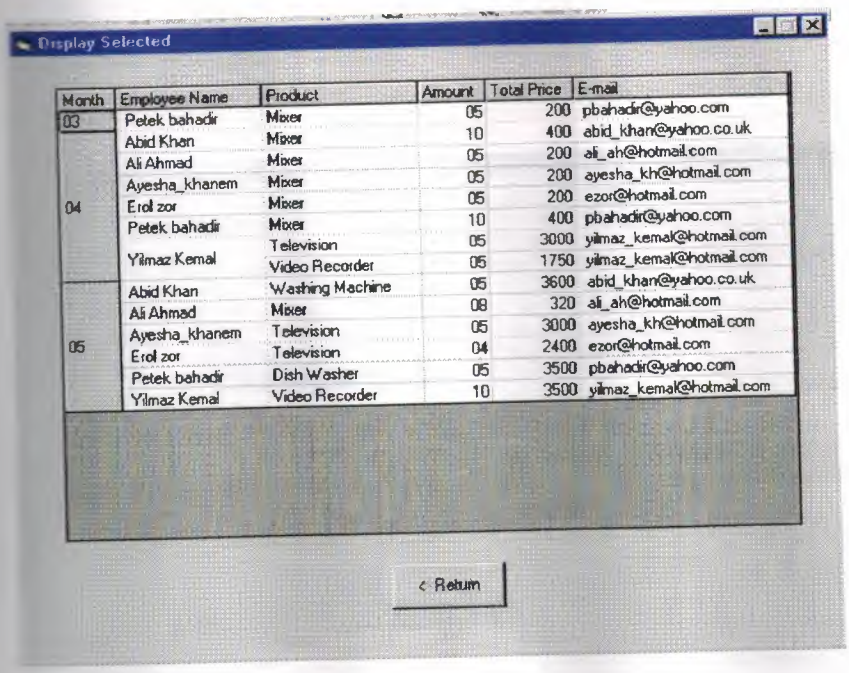
The **Display Selected** form contains a *MsFlexGrid* control filled with information about some particular branch as selected in *Files Selection Form*. The fields are: **Month**, **Employees Name**, **Product**, **Amount**, **Total Price** and **Employees E-mail**. User can change the positions of these fields by dragging a column to another column's position. The data will be merged and sorted accordingly. User may return to fisrt form by clicking on Button.


Directory Selection
Select Drive:
c: [WAJID]
Select Directory:
C:\
project
vb
Famagusta
Choose File:
main.txt
trans.txt
Files Selected:
C:\project\vb\Famagusta\main.txt
C:\project\vb\Famagusta\trans.txt
< Return
Proceed >

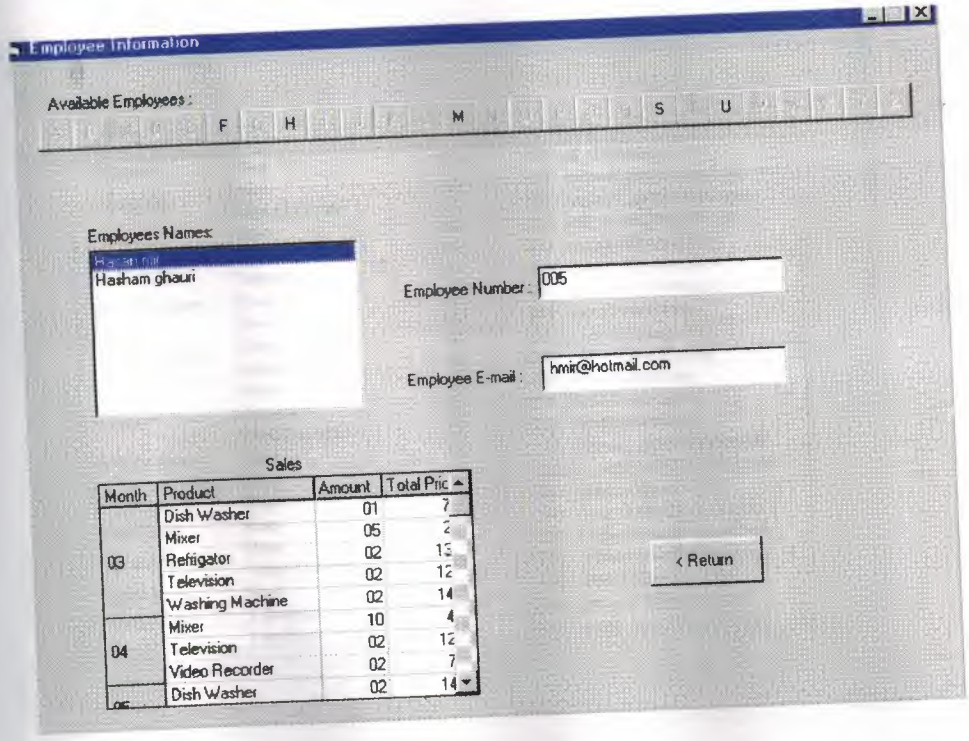
Display Selected Form:

After file selection **Employees information** form will be displayed, if the user had choosen **Employees Information.** It has an array of **Command Buttons** with only those enabled whose caption is same as first character of Employees name in given file. If any of **enabled buttons** are clicked, Employees with first character same as its caption are shown in a List Box. If any of Employee's Name is selected, his employee number and e-mail are shown in relative **Text Boxes** and The **FlexGrid** is filled with his Sales information. This Processes can be repeated for a number of times and finally user may click on to return to **Main menu.**

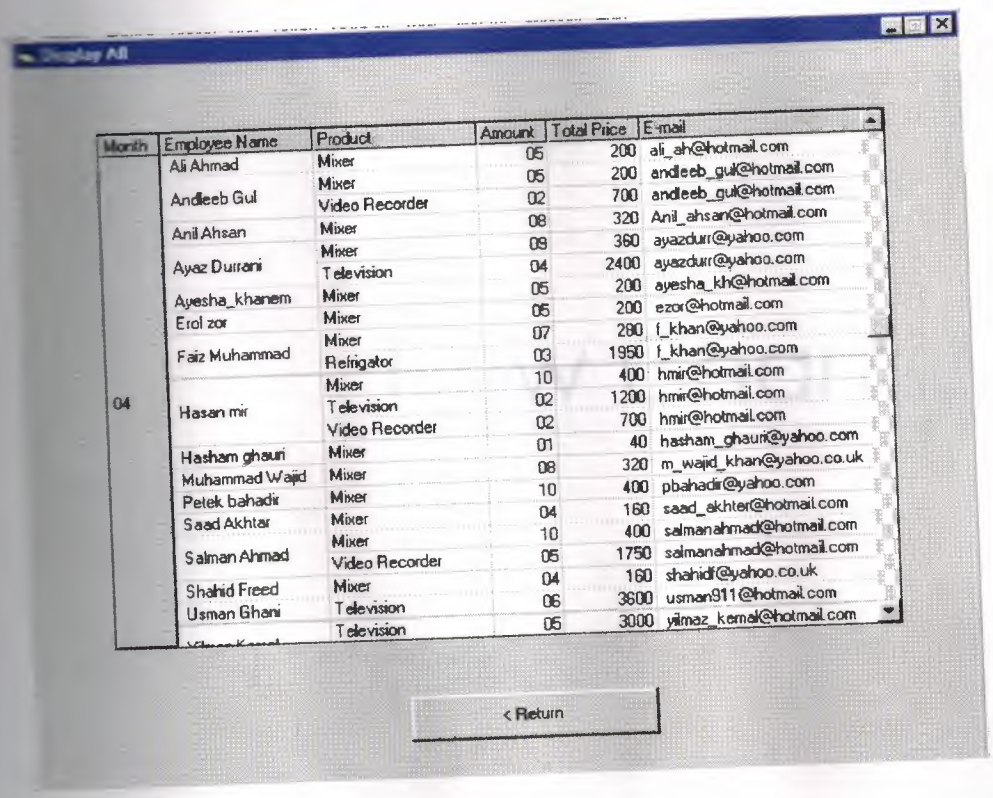
If User selects **Display All,** Display All Form will be shown. It has a **FlexGrid** with Month, Employees Name, Product, Amount, Total Price and Employees E-mail fields. It contains data from all three branches. Fileds can still be manipulated as before. User can when Done.


Display Selected
Month
Employee Name
Product
Amount
Total Price
E-mail
03
Petek bahadir
Mixer
05
200
pbahadir@yahoo.com
Abid Khan
Mixer
10
400
abid_khan@yahoo.co.uk
04
Ali Ahmad
Mixer
05
200
ali_ah@hotmail.com
Ayesha_khanem
Mixer
05
200
ayesha_kh@hotmail.com
Erol zor
Mixer
05
200
ezor@hotmail.com
Petek bahadir
Mixer
10
400
pbahadir@yahoo.com
Yilmaz Kemal
Television
05
3000
yilmaz_kemak@hotmail.com
Video Recorder
05
1750
yilmaz_kemak@hotmail.com
05
Abid Khan
Washing Machine
05
3600
abid_khan@yahoo.co.uk
Ali Ahmad
Mixer
08
320
ali_ah@hotmail.com
Ayesha_khanem
Television
05
3000
ayesha_kh@hotmail.com
Erol zor
Television
04
2400
ezor@hotmail.com
Petek bahadir
Dish Washer
05
3500
pbahadir@yahoo.com
Yilmaz Kemal
Video Recorder
10
3500
yilmaz_kemak@hotmail.com
< Return

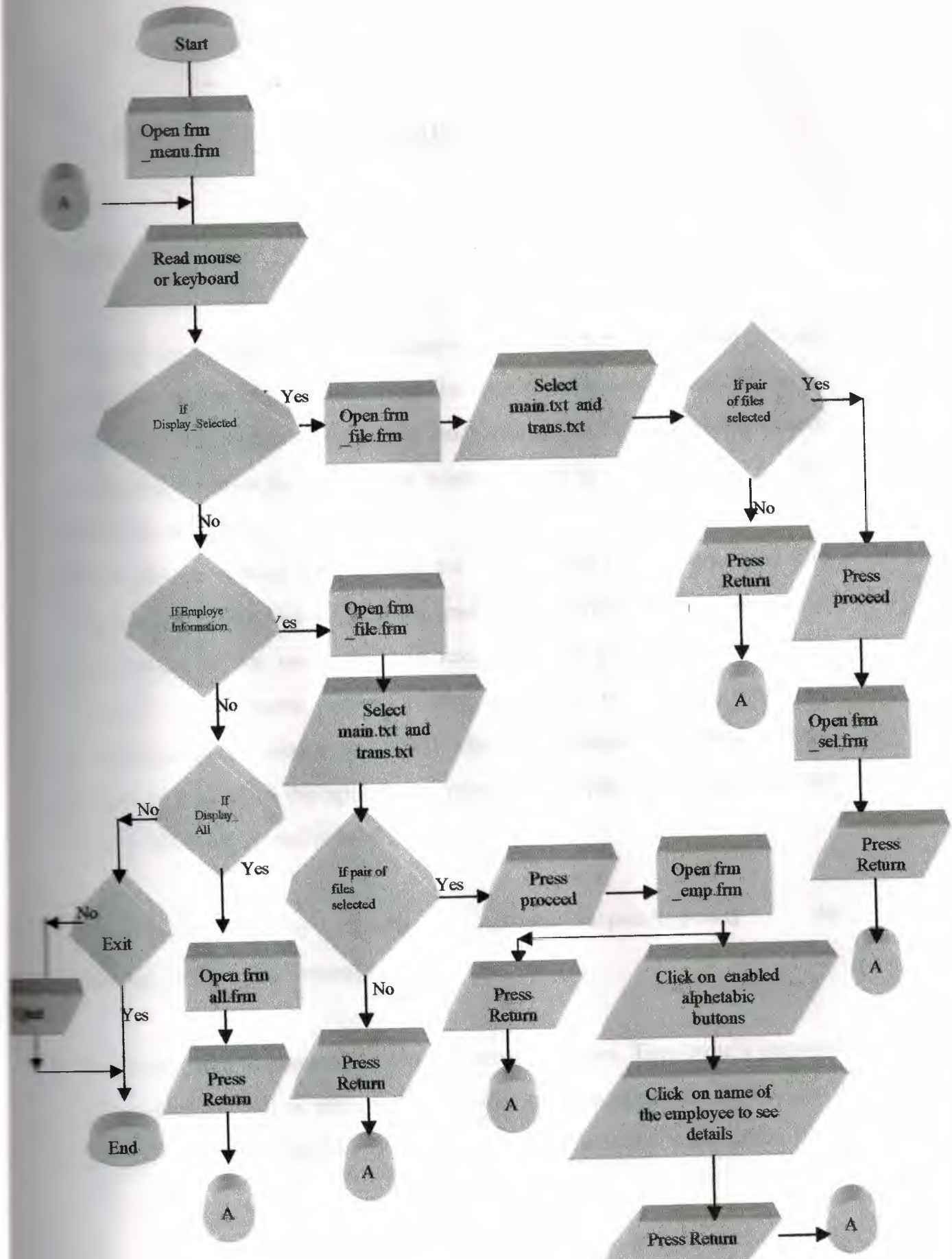
Employees Information Form



Display All Form



Flow Chart


Start
Open frm _menu.frm
A
Read mouse or keyboard
If Display_Selected
Yes
Open frm _file.frm
Select main.txt and trans.txt
If pair of files selected
Yes
No
Press Return
A
Press proceed
Open frm _sel.frm
Press Return
A
No
If Employe Information
Yes
Open frm _file.frm
Select main.txt and trans.txt
If pair of files selected
Yes
Press proceed
Open frm _emp.frm
Press Return
A
Click on enabled alphetabic buttons
Click on name of the employee to see details
Press Return
A
No
If Display_ All
Yes
Open frm all.frm
Press Return
A
No
Exit
Yes
End
No
Press Return
A

Software Design Issues

Processing Files:

If we design an application to use database files,we will not need to provide direct file access in our application.The data controls let us read and write data to and from a database,which is much easier than using direct file-access techniques.However,there are times when we need to read and write to files other than database.

Depending upon what kind of data the file contains.I used Sequential File Access approach which is used for reading and writing files in continuous blocks,designed for use with plain text files.Each character in the file is assumed to represent either a text character or a text formatting sequence.Data is stored as ANSI characters.'Sequential Files Access' approach is used in the application program.To open a file for sequential access,following syntax is used.

Open pathName **For** **[Input|Output|Append]** **As** FileNumber**[Len**=buffersize]

The considered Commercial Firm has three branches. Employee's personal information as well as sales information is given in plain text files.So each branch has pair of files.The file main.txt has the personal information of an

employee and trans.txt has information about the sales of the employee.The These files are given below:

Famagusta:

The file main.txt has following contents :

005 Hasan mir hmir@hotmail.com
006 Faiz Muhammad f_khan@yahoo.com
007 Muhammad Wajid m_wajid_khan@yahoo.co.uk
008 Usman Ghani usman911@hotmail.com
009 Hasham ghauri hasham_ghauri@yahoo.com
010 Salman Ahmad salmanahmad@hotmail.com

The file trans.txt has following contents

005 03 Refrigator 02 0650
005 03 Dish Washer 01 0700
005 03 Mixer 05 0040
005 03 Television 02 0600
005 03 Washing Machine 02 0720
005 04 Mixer 10 0040
005 04 Video Recorder 02 0350
005 04 Television 02 0600
005 05 Television 03 0600
005 05 Dish Washer 02 0700
006 03 Television 05 0600
006 03 Video Recorder 05 0350

006 04 Mixer 07 0040
006 04 Refrigator 03 0650
006 05 Refrigator 04 0650
006 05 Washing Machine 02 0720
007 03 Mixer 10 0040
007 04 Mixer 08 0040
007 05 Mixer 12 0040
008 03 Dish Washer 03 0700
008 03 Mixer 03 0040
008 04 Television 06 0600
008 05 Video Recorder 05 0350
009 03 Mixer 02 0040
009 04 Mixer 01 0040
009 05 Television 01 0600
010 03 Refrigator 03 0650
010 03 Mixer 05 0040
010 03 Television 03 0600
010 03 Video Recorder 03 0350
010 04 Video Recorder 05 0350
010 04 Mixer 10 0040
010 05 Television 02 0600
010 05 Video Recorder 02 0350

Kereinia:

The file main.txt has following contents :

```
205 Petek bahadir      pbahadir@yahoo.com
206 Abid Khan          abid_khan@yahoo.co.uk
207 Ali Ahmad          ali_ah@hotmail.com
208 Yilmaz Kemal       yilmaz_kemal@hotmail.com
209 Ayesha_khanem      ayesha_kh@hotmail.com
210 Erol zor           ezor@hotmail.com
```

The file trans.txt has following contents:

```
205 03 Mixer          05 0040
205 04 Mixer          10 0040
205 05 Dish Washer    05 0700
206 03 Television     05 0600
206 04 Mixer          10 0040
206 05 Washing Machine 05 0720
207 03 Mixer          05 0040
207 04 Mixer          05 0040
207 05 Mixer          08 0040
208 03 Dish Washer    02 0700
208 04 Video Recorder 05 0350
208 04 Television     05 0600
208 05 Video Recorder 10 0350
209 03 Mixer          10 0040
209 04 Mixer          05 0040
```

209 05 Television 05 0600
210 03 Television 02 0600
210 04 Mixer 05 0040
210 05 Television 04 0600

Nicosia:

The file main.txt has following contents:

105 Ayaz Durrani ayazdurr@yahoo.com
106 Anil Ahsan Anil_ahsan@hotmail.com
107 Shahid Freed shahidf@yahoo.co.uk
108 Ahmad sheikh ahmad_sheikh @hotmail.com
109 Saad Akhtar saad_akhter@hotmail.com
110 Andleeb Gul andleeb_gul@hotmail.com

The file trans.txt has following contents:

105 03 Dish Washer 02 0700
105 03 Mixer 06 0040
105 04 Mixer 09 0040
105 04 Television 04 0600
105 05 Dish Washer 03 0700
106 03 Television 06 0600
106 04 Mixer 08 0040
106 05 Washing Machine 05 0720
107 03 Mixer 05 0040

107 04 Mixer 04 0040
107 05 Mixer 06 0040
108 03 Dish Washer 02 0700
108 04 Television 05 0600
108 05 Video Recorder 01 0350
109 03 Mixer 04 0040
109 04 Mixer 04 0040
109 05 Television 04 0600
110 03 Refrigator 05 0650
110 03 Television 02 0600
110 04 Video Recorder 02 0350
110 04 Mixer 05 0040
110 05 Television 04 0600

Populater( ):

Its most probably the heart of the application it serves all three flexgrids and fills them with required data. The parameters are:

fg As MSFlexGrid, where As Integer, array_index As Integer

where **fg** is a the given grid, **where** specifies its location (the form) and **array_index** is the index of textarray of that grid.

Populater( ) takes a pair of **main.txt** and **trans.txt** (belonging to same branch of our company) at a time and and populates the grid with that data. All three Grids have their own specific needs and they are all taken care of. e.g. **Employee Info form** and **Display Selected form** needs to open files from a List Box in **File Selection form** where as **Display All form** specifies exact locations of these files itself. Also **Employee Info form** would have already opened **main.txt** file for enabling buttons and filling List Box etc, so in such case **populater** should not try to open it again.

Next thing to do is to get data from files and add to **textarray** property of the grid. One thing to notice here is that data is already in **Sorted** order of **Emplyees Number.** So instead of opening **trans.txt** for each employee and searching for its transactions we could simply open it only once and while **employee numbers** are same in both files keep adding that data to **textarray**, and continue similarly for other employees. Here

Populater would close these files at the end, but will not close **main.txt** for **Employees info form** as it would need it again and again for its operations (For this purpose this form uses **Seek** statement to Sets the position for the next read operation to first character).

Sorter(fg As MSFlexGrid):

After populating flexgrid we need to sort our data, this function selects all cells and set grid's sort property to 1 which sorts the selected rows accordingly.

mouse_dn( ) and mouse_up( ):

All Flexgrids should have the ability to change there columns positions. These common procedures are called from MouseDown and MouseUp of the grids and work as follows: mouse_dn( ) save current columns position of mouse pointer in grid's tag property and mouse_up( ) changes that columns position with the column that is currently under mouse.

Frm emp.Form Load( ):

It Disables all the cmd_sel array buttons and then just enables those whose caption is same as first character of employee name from **main.txt** . We don't really need to check caption property of each button and compare it with employees name from file for enabling it. As a shortcut we need only to use index of these buttons. e.g: if button with caption 'A' has index 0, 'B' has index 1 and so on, With this configuration we can directly enable appropriate buttons using Ascii character codes. For example:

```
cmd_sel(Asc(ch) - 65).Enabled = True
```

where **ch** is first character of employees name and asc( ) give Ascii code of a character. Similar technique could be used to add employee names to List Box.

frm emp.List1 DblClick( ) event :

It prints selected employees info in Text Boxes and in the FlexGrid . As user may have changed Format of columns for previously selected employee so it should also reset it by using Format String property.

frm allForm Load( ):

As **populater( )** could only work with one pair of files at a time, so for all three branches we would call **populater( )** three times with different file pairs.

Program Source Code

frm_main

```
Private Sub cmd_exit_Click()
Unload Me
End
End Sub

Private Sub Form_Load()
Toolbar1.Buttons(1).Image = 1 'set images to images from
imagelists using its index
Toolbar1.Buttons(2).Image = 2
Toolbar1.Buttons(3).Image = 3
Toolbar1.Buttons(4).Image = 4
End Sub

Private Sub Form_MouseUp(Button As Integer, Shift As
Integer, X As Single, Y As Single)
If Button = 2 Then PopupMenu mnumain 'show pop up menu on
form
End Sub

Private Sub mnuall_Click()
frm_main.Visible = False
frm_all.Visible = True  'show display all form
frm_tag = "3"
```

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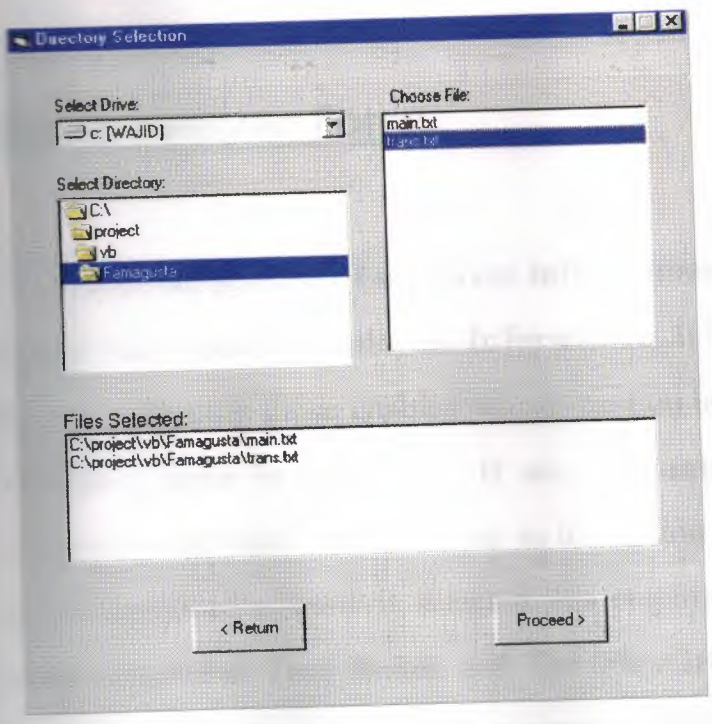
Directory Selection
Select Drive:
c: [WAJID]
Select Directory:
C:\
project
vb
Famagusta
Choose File:
main.txt
trans.txt
Files Selected:
C:\project\vb\Famagusta\main.txt
C:\project\vb\Famagusta\trans.txt
< Return
Proceed >

Display Selected Form:

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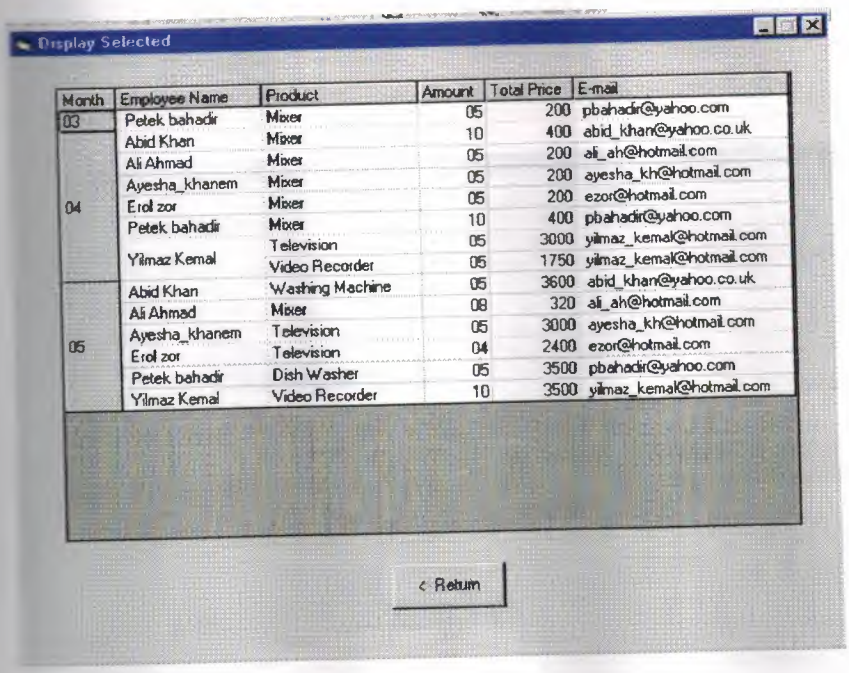
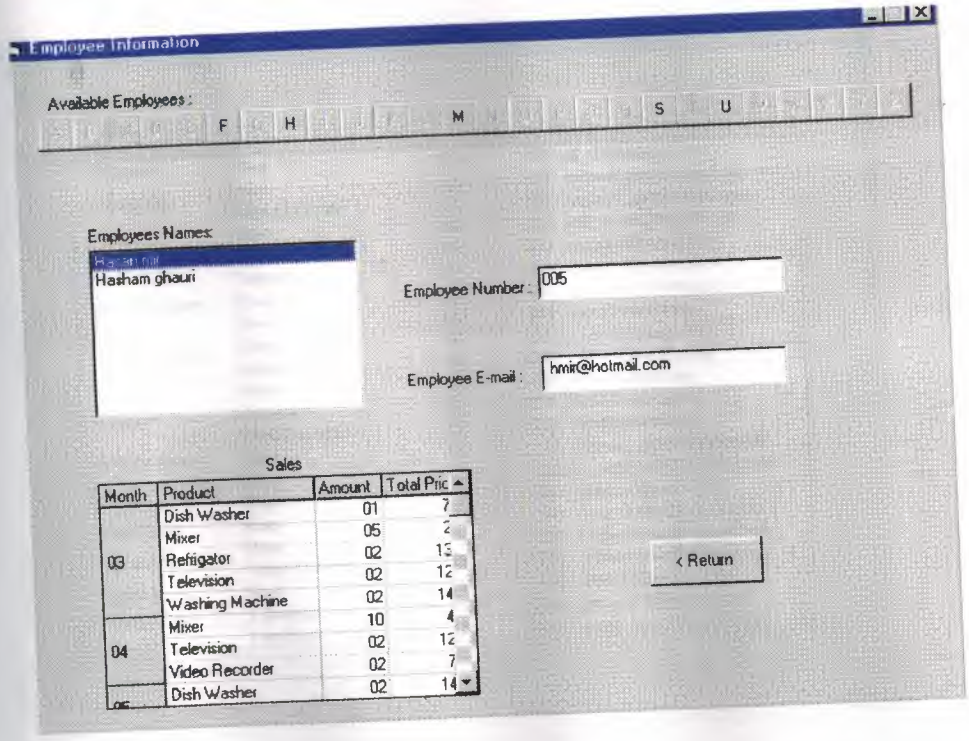
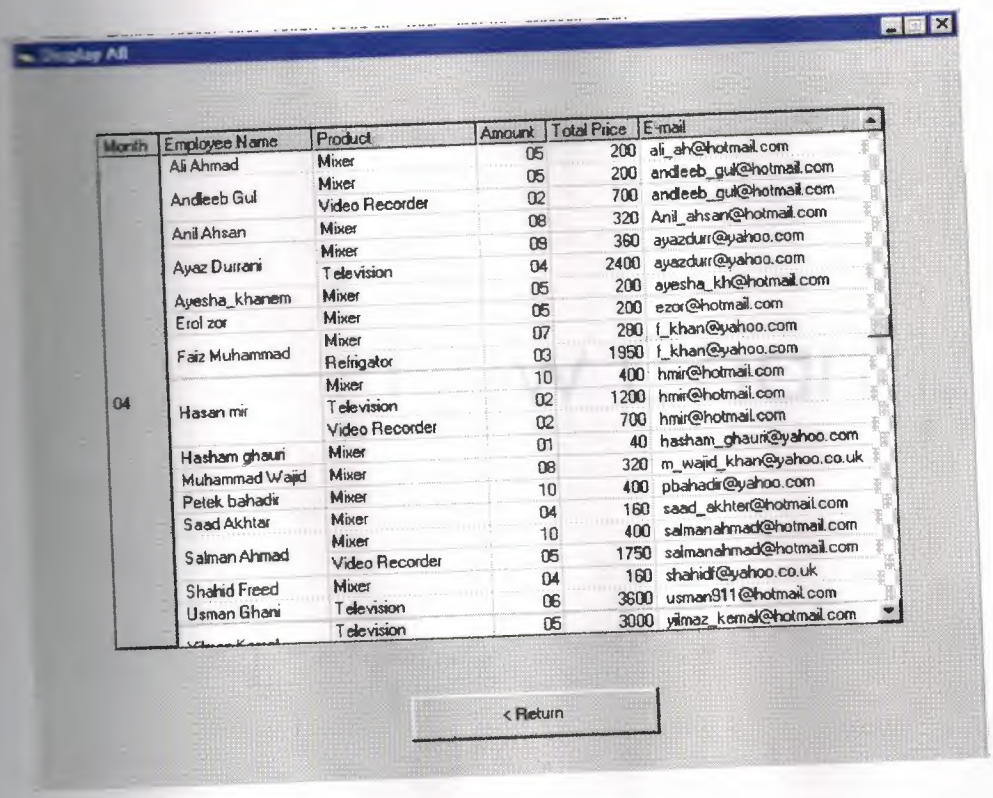
If User selects **Display All,** Display All Form will be shown. It has a **FlexGrid** with Month, Employees Name, Product, Amount, Total Price and Employees E-mail fields. It contains data from all three branches. Fileds can still be manipulated as before. User can when Done.


Display Selected
Month
Employee Name
Product
Amount
Total Price
E-mail
03
Petek bahadir
Mixer
05
200
pbahadir@yahoo.com
Abid Khan
Mixer
10
400
abid_khan@yahoo.co.uk
04
Ali Ahmad
Mixer
05
200
ali_ah@hotmail.com
Ayesha_khanem
Mixer
05
200
ayesha_kh@hotmail.com
Erol zor
Mixer
05
200
ezor@hotmail.com
Petek bahadir
Mixer
10
400
pbahadir@yahoo.com
Yilmaz Kemal
Television
05
3000
yilmaz_kemak@hotmail.com
Video Recorder
05
1750
yilmaz_kemak@hotmail.com
05
Abid Khan
Washing Machine
05
3600
abid_khan@yahoo.co.uk
Ali Ahmad
Mixer
08
320
ali_ah@hotmail.com
Ayesha_khanem
Television
05
3000
ayesha_kh@hotmail.com
Erol zor
Television
04
2400
ezor@hotmail.com
Petek bahadir
Dish Washer
05
3500
pbahadir@yahoo.com
Yilmaz Kemal
Video Recorder
10
3500
yilmaz_kemak@hotmail.com
< Return

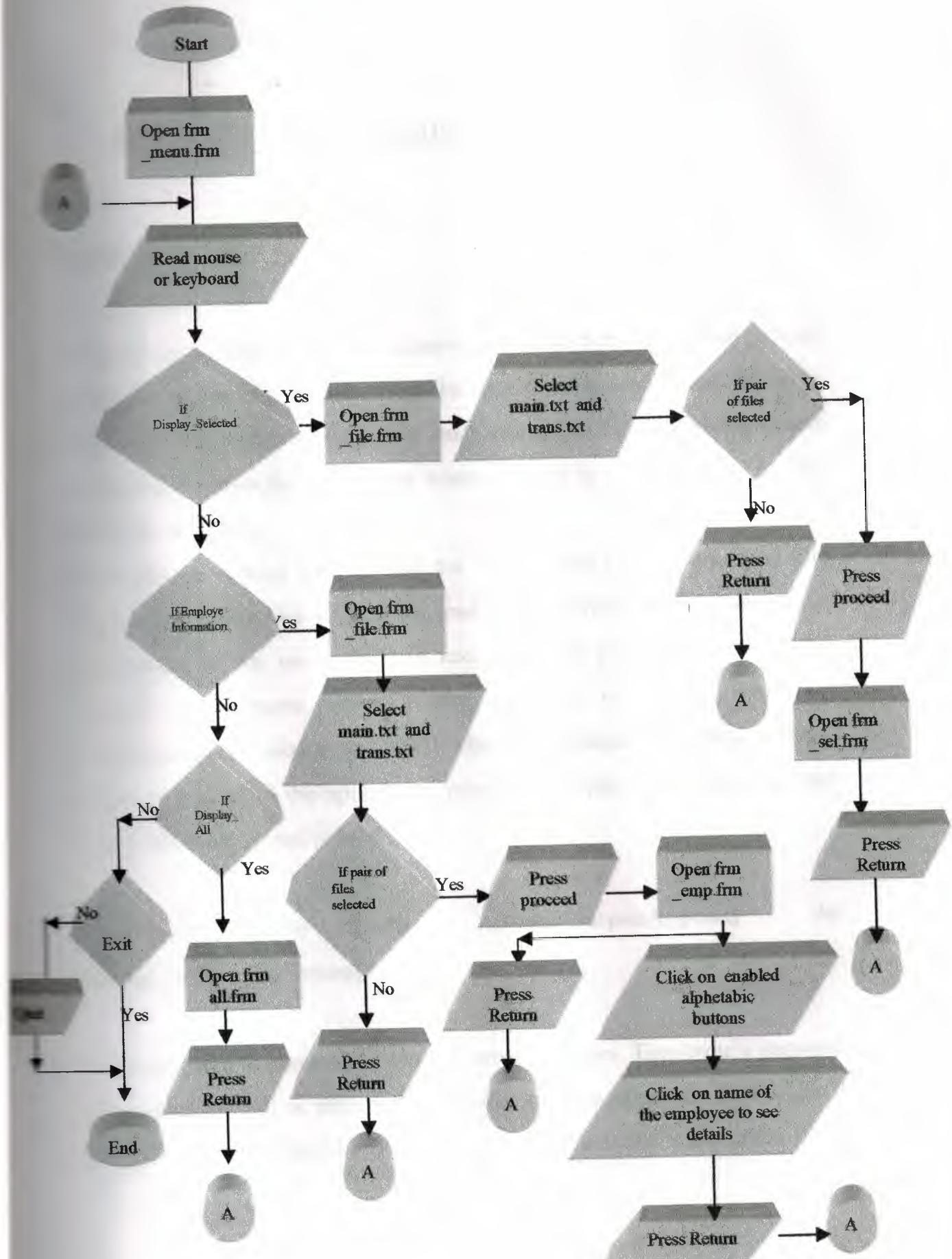
Employees Information Form



Display All Form



Flow Chart


Start
Open frm _menu.frm
A
Read mouse or keyboard
If Display_Selected
Yes
Open frm _file.frm
Select main.txt and trans.txt
If pair of files selected
Yes
No
Press Return
A
Press proceed
Open frm _sel.frm
Press Return
A
No
If Employe Information
Yes
Open frm _file.frm
Select main.txt and trans.txt
If pair of files selected
Yes
Press proceed
Open frm _emp.frm
Press Return
A
Click on enabled alphetabic buttons
Click on name of the employee to see details
Press Return
A
No
If Display_ All
Yes
Open frm all.frm
Press Return
A
No
Exit
Yes
End
No
Press Return
A

Software Design Issues

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If we design an application to use database files,we will not need to provide direct file access in our application.The data controls let us read and write data to and from a database,which is much easier than using direct file-access techniques.However,there are times when we need to read and write to files other than database.

Depending upon what kind of data the file contains.I used Sequential File Access approach which is used for reading and writing files in continuous blocks,designed for use with plain text files.Each character in the file is assumed to represent either a text character or a text formatting sequence.Data is stored as ANSI characters.'Sequential Files Access' approach is used in the application program.To open a file for sequential access,following syntax is used.

Open pathName **For** **[Input|Output|Append]** **As** FileNumber**[Len**=buffersize]

The considered Commercial Firm has three branches. Employee's personal information as well as sales information is given in plain text files.So each branch has pair of files.The file main.txt has the personal information of an

employee and trans.txt has information about the sales of the employee.The These files are given below:

Famagusta:

The file main.txt has following contents :

005 Hasan mir hmir@hotmail.com
006 Faiz Muhammad f_khan@yahoo.com
007 Muhammad Wajid m_wajid_khan@yahoo.co.uk
008 Usman Ghani usman911@hotmail.com
009 Hasham ghauri hasham_ghauri@yahoo.com
010 Salman Ahmad salmanahmad@hotmail.com

The file trans.txt has following contents

005 03 Refrigator 02 0650
005 03 Dish Washer 01 0700
005 03 Mixer 05 0040
005 03 Television 02 0600
005 03 Washing Machine 02 0720
005 04 Mixer 10 0040
005 04 Video Recorder 02 0350
005 04 Television 02 0600
005 05 Television 03 0600
005 05 Dish Washer 02 0700
006 03 Television 05 0600
006 03 Video Recorder 05 0350

006 04 Mixer 07 0040
006 04 Refrigator 03 0650
006 05 Refrigator 04 0650
006 05 Washing Machine 02 0720
007 03 Mixer 10 0040
007 04 Mixer 08 0040
007 05 Mixer 12 0040
008 03 Dish Washer 03 0700
008 03 Mixer 03 0040
008 04 Television 06 0600
008 05 Video Recorder 05 0350
009 03 Mixer 02 0040
009 04 Mixer 01 0040
009 05 Television 01 0600
010 03 Refrigator 03 0650
010 03 Mixer 05 0040
010 03 Television 03 0600
010 03 Video Recorder 03 0350
010 04 Video Recorder 05 0350
010 04 Mixer 10 0040
010 05 Television 02 0600
010 05 Video Recorder 02 0350

Kereinia:

The file main.txt has following contents :

```
205 Petek bahadir      pbahadir@yahoo.com
206 Abid Khan          abid_khan@yahoo.co.uk
207 Ali Ahmad          ali_ah@hotmail.com
208 Yilmaz Kemal       yilmaz_kemal@hotmail.com
209 Ayesha_khanem      ayesha_kh@hotmail.com
210 Erol zor           ezor@hotmail.com
```

The file trans.txt has following contents:

```
205 03 Mixer          05 0040
205 04 Mixer          10 0040
205 05 Dish Washer    05 0700
206 03 Television     05 0600
206 04 Mixer          10 0040
206 05 Washing Machine 05 0720
207 03 Mixer          05 0040
207 04 Mixer          05 0040
207 05 Mixer          08 0040
208 03 Dish Washer    02 0700
208 04 Video Recorder 05 0350
208 04 Television     05 0600
208 05 Video Recorder 10 0350
209 03 Mixer          10 0040
209 04 Mixer          05 0040
```

209 05 Television 05 0600
210 03 Television 02 0600
210 04 Mixer 05 0040
210 05 Television 04 0600

Nicosia:

The file main.txt has following contents:

105 Ayaz Durrani ayazdurr@yahoo.com
106 Anil Ahsan Anil_ahsan@hotmail.com
107 Shahid Freed shahidf@yahoo.co.uk
108 Ahmad sheikh ahmad_sheikh @hotmail.com
109 Saad Akhtar saad_akhter@hotmail.com
110 Andleeb Gul andleeb_gul@hotmail.com

The file trans.txt has following contents:

105 03 Dish Washer 02 0700
105 03 Mixer 06 0040
105 04 Mixer 09 0040
105 04 Television 04 0600
105 05 Dish Washer 03 0700
106 03 Television 06 0600
106 04 Mixer 08 0040
106 05 Washing Machine 05 0720
107 03 Mixer 05 0040

107 04 Mixer 04 0040
107 05 Mixer 06 0040
108 03 Dish Washer 02 0700
108 04 Television 05 0600
108 05 Video Recorder 01 0350
109 03 Mixer 04 0040
109 04 Mixer 04 0040
109 05 Television 04 0600
110 03 Refrigator 05 0650
110 03 Television 02 0600
110 04 Video Recorder 02 0350
110 04 Mixer 05 0040
110 05 Television 04 0600

Populater( ):

Its most probably the heart of the application it serves all three flexgrids and fills them with required data. The parameters are:

fg As MSFlexGrid, where As Integer, array_index As Integer

where **fg** is a the given grid, **where** specifies its location (the form) and **array_index** is the index of textarray of that grid.

Populater( ) takes a pair of **main.txt** and **trans.txt** (belonging to same branch of our company) at a time and and populates the grid with that data. All three Grids have their own specific needs and they are all taken care of. e.g. **Employee Info form** and **Display Selected form** needs to open files from a List Box in **File Selection form** where as **Display All form** specifies exact locations of these files itself. Also **Employee Info form** would have already opened **main.txt** file for enabling buttons and filling List Box etc, so in such case **populater** should not try to open it again.

Next thing to do is to get data from files and add to **textarray** property of the grid. One thing to notice here is that data is already in **Sorted** order of **Emplyees Number.** So instead of opening **trans.txt** for each employee and searching for its transactions we could simply open it only once and while **employee numbers** are same in both files keep adding that data to **textarray**, and continue similarly for other employees. Here

Populater would close these files at the end, but will not close **main.txt** for **Employees info form** as it would need it again and again for its operations (For this purpose this form uses **Seek** statement to Sets the position for the next read operation to first character).

Sorter(fg As MSFlexGrid):

After populating flexgrid we need to sort our data, this function selects all cells and set grid's sort property to 1 which sorts the selected rows accordingly.

mouse_dn( ) and mouse_up( ):

All Flexgrids should have the ability to change there columns positions. These common procedures are called from MouseDown and MouseUp of the grids and work as follows: mouse_dn( ) save current columns position of mouse pointer in grid's tag property and mouse_up( ) changes that columns position with the column that is currently under mouse.

Frm emp.Form Load( ):

It Disables all the cmd_sel array buttons and then just enables those whose caption is same as first character of employee name from **main.txt** . We don't really need to check caption property of each button and compare it with employees name from file for enabling it. As a shortcut we need only to use index of these buttons. e.g: if button with caption 'A' has index 0, 'B' has index 1 and so on, With this configuration we can directly enable appropriate buttons using Ascii character codes. For example:

```
cmd_sel(Asc(ch) - 65).Enabled = True
```

where **ch** is first character of employees name and asc( ) give Ascii code of a character. Similar technique could be used to add employee names to List Box.

frm emp.List1 DblClick( ) event :

It prints selected employees info in Text Boxes and in the FlexGrid . As user may have changed Format of columns for previously selected employee so it should also reset it by using Format String property.

frm allForm Load( ):

As **populater( )** could only work with one pair of files at a time, so for all three branches we would call **populater( )** three times with different file pairs.

Program Source Code

frm_main

```
Private Sub cmd_exit_Click()
Unload Me
End
End Sub

Private Sub Form_Load()
Toolbar1.Buttons(1).Image = 1 'set images to images from
imagelists using its index
Toolbar1.Buttons(2).Image = 2
Toolbar1.Buttons(3).Image = 3
Toolbar1.Buttons(4).Image = 4
End Sub

Private Sub Form_MouseUp(Button As Integer, Shift As
Integer, X As Single, Y As Single)
If Button = 2 Then PopupMenu mnumain 'show pop up menu on
form
End Sub

Private Sub mnuall_Click()
frm_main.Visible = False
frm_all.Visible = True  'show display all form
frm_tag = "3"
```

```
End Sub

Private Sub mnuemp_Click()
frm_main.Visible = False
frm_file.Visible = True     'show file selction form
frm_tag = "2" 'depending on value of tag we will decide
which form to show next
End Sub

Private Sub mnuexit_Click()
Call cmd_exit_Click
End Sub

Private Sub mnusel_Click()
frm_main.Visible = False
frm_file.Visible = True
frm_tag = "1"
End Sub

Private    Sub    Toolbar1_ButtonClick(ByVal    Button    As
MSComctlLib.Button)
Select Case Button.Index  'perform same tasks as menus
Case 1
mnusel_Click
Case 2
mnuemp_Click
Case 3
mnuall_Click
Case 4
mnuexit_Click
End Select
End Sub
```

frm_file

```
Private Sub cmd_nxt_Click()
If frm_tag = "1" Then
Load frm_sel
frm_sel.Visible = True
ElseIf frm_tag = "2" Then
Load frm_emp
frm_emp.Visible = True
End If
'Load frm_all
frm_file.Visible = False
End Sub

Private Sub cmd_ret_Click()
Me.Visible = False
frm_main.Visible = True
End Sub

Private Sub Dir1_Change()
File1.Path = Dir1.Path
End Sub

Private Sub Drive1_Change()
Dir1.Path = Drive1.Drive
End Sub

Private Sub File1_DblClick()
```

```
lst_add.AddItem File1.Path & "\" & File1.FileName 'add
files path to list box
If lst_add.ListCount = 2 Then cmd_nxt.Enabled = True
End Sub

Private Sub Form_Load()
File1.Pattern = "main.txt;trans.txt"    ' we only expect
main.txt and
                                        ' trans.txt as input
files
cmd_nxt.Enabled = False                 ' so filter out
others
End Sub

Private Sub Form_Unload(Cancel As Integer)
frm_main.Visible = True
End Sub

Private Sub lst_add_DblClick()
lst_add.RemoveItem lst_add.ListIndex
If lst_add.ListCount < 2 Then cmd_nxt.Enabled = False
End Sub
```

frm_sel

```
Private Sub cmd_ret_Click()
Unload Me       'unload and also call form_unload()
End Sub
```

```
Private Sub fg1_MouseDown(Button As Integer, Shift As
Integer, X As Single, Y As Single)
MousePointer = vbSizeWE
mouse_dn fg1
End Sub

Private Sub fg1_MouseUp(Button As Integer, Shift As
Integer, X As Single, Y As Single)
MousePointer = vbDefault
mouse_up fg1
End Sub

Private Sub Form_Load()
Dim i As Integer
populater fg1, 1, 6
For i = 0 To fg1.Cols - 1
fg1.MergeCol(i) = True    ' All cols are merged row wise
Next i

sorter fg1
End Sub

Private Sub Form_Unload(Cancel As Integer)
Unload frm_file   ' its each forms responsibility to unload
file form that it used
frm_main.Visible = True   ' go back to main form
End Sub


'
'                    frm_emp
'
```

```
Private Sub cmd_ret_Click()
If FreeFile > 1 Then Close (1)
Unload Me
End Sub

Private Sub cmd_sel_Click(Index As Integer)
Dim myline As String * 50, name As String * 20
Seek #1, 1
List1.Clear
Do
Line Input #1, myline
name = Mid(myline, 5, 20)
If Chr(Index + 65) = Mid(name, 1, 1) Then List1.AddItem
name 'if first char of name= index+65(=>ascii char) then
add to list
Loop Until EOF(1)
End Sub

Private Sub Form_Load()
Dim myline As String * 50, ch As String * 1, i As Integer
For i = 0 To 25
cmd_sel(i).Enabled = False        ' disable all buttons
Next i
If      InStr(1,      frm_file.lst_add.List(0),      "main",
vbTextCompare) = 0 Then
Open  frm_file.lst_add.List(1)  For  Input  As  #1  'open  main
file
Else
Open  frm_file.lst_add.List(0)  For  Input  As  #1  'open  main
file
End If
```

```
Do
Line Input #1, myline
ch = Mid(myline, 5, 1)
cmd_sel(Asc(ch) - 65).Enabled = True 'directly select the
button bcaz index is
' 65 - (ascii value of buttons caption) ,eg: buutton A has
index 0=65-65 ,and enable it
Loop Until EOF(1)
For i = 0 To fg2.Cols - 1
fg2.MergeCol(i) = True
Next i

End Sub

Private Sub Form_Unload(Cancel As Integer)
Unload frm_file
frm_main.Visible = True
End Sub

Private Sub List1_DblClick()
Dim myline As String * 50, eno As String * 3
Dim name As String, mail As String * 25
fg2.Rows = 1
Seek #1, 1    ' no need to open file again n again, simply
point to first char in file
fg2.FormatString     =     "<     Month     |     Product
| Amount | Total Price "
' set format string again, as user might have changed it
Do
Line Input #1, myline
eno = Mid(myline, 1, 3)
name = Trim(Mid(myline, 4, 20))
```

```
'
'                frm_all
'

Private Sub cmd_ret_Click()
Unload Me
End Sub

Private Sub fg3_MouseDown(Button As Integer, Shift As
Integer, X As Single, Y As Single)
MousePointer = vbSizeWE
mouse_dn fg3
End Sub

Private Sub fg3_MouseUp(Button As Integer, Shift As
Integer, X As Single, Y As Single)
MousePointer = vbDefault
mouse_up fg3
End Sub

Private Sub Form_Load()
Dim i As Integer
For i = 0 To fg3.Cols - 1
fg3.MergeCol(i) = True
Next i
indx = 6        'indx keep flex grid's textarray's current
index
main_path = "a:\VB-6\Famagusta\main.txt"   'update paths
trans_path = "a:\VB-6\Famagusta\trans.txt"  'if changed
populater fg3, 3, indx
main_path = "a:\VB-6\Kereinia\main.txt"
trans_path = "a:\VB-6\Kereinia\trans.txt"
```

```
populater fg3, 3, indx
main_path = "a:\VB-6\Nicosia\main.txt"
trans_path = "a:\VB-6\Nicosia\trans.txt"
populater fg3, 3, indx

sorter fg3
End Sub

Private Sub Form_Unload(Cancel As Integer)
frm_main.Visible = True
End Sub
```

Module 1

```
Public main_path As String, trans_path As String
Public frm_tag As String, hisno As String * 3
Public indx As Integer

Public Sub populater(fg As MSFlexGrid, where As Integer,
array_index As Integer)
Dim main_line As String * 50, trans_line As String * 31
Dim m_empno As String * 3, t_empno As String * 3
Dim emp_name As String * 20, emp_mail As String * 25
Dim month As String * 2, product As String * 15
Dim amount As String * 2, price As String * 4
Dim ok, file_line_1, file_line_2 As Integer

If where = 1 Or where = 2 Then 'populate with files from
listbox
```

```
If      InStr(1,      frm_file.lst_add.List(0),      "main",
vbTextCompare) = 0 Then
Open frm_file.lst_add.List(0) For Input As #2 'trans file
If where = 1 Then Open frm_file.lst_add.List(1) For Input
As #1
              'mainfile  ,  else  where=2  =>  file  already
exists
Else
If where = 1 Then Open frm_file.lst_add.List(0) For Input
As #1
'main file
Open frm_file.lst_add.List(1) For Input As #2 'trans file
End If
Else       'populate with all files , where=3
Open main_path For Input As #1
Open trans_path For Input As #2
End If
file_line_2 = 0: file_line_1 = 0
Do
Line Input #1, main_line

If file_line_1 <> file_line_2 Then 'only get another input
from trans
'file first time, other inputs are from inner loop
file_line_1 = file_line_2
Else
Line Input #2, trans_line
End If

file_line_1 = file_line_1 + 1

m_empno = Mid(main_line, 1, 3)
```

```
emp_name = Mid(main_line, 4, 20)
emp_mail = Mid(main_line, 25, 25)

t_empno = Mid(trans_line, 1, 3)
While t_empno Like m_empno     'for the same employee....
,else if
' employee is diff, keep last input from trans
' it would be first transaction for next employee(sorted
files) just
'get next emp info from main
month = Mid(trans_line, 5, 2)
product = Mid(trans_line, 8, 15)
amount = Mid(trans_line, 24, 2)
price = Mid(trans_line, 27, 4)

If (where <> 2 Or (where = 2 And (m_empno Like hisno)))
Then
          'where=2  ..  in  emp  form  only  emp  info  is
needed,forget others
fg.Rows = fg.Rows + 1 'initially just one row,so add rows
                    ' as data comes in
fg.TextArray(array_index)    =    month:    array_index    =
array_index + 1
If where <> 2 Then          ' frm_emp don't need name to be
added to grid
fg.TextArray(array_index) = emp_name
array_index = array_index + 1   ' inc index only if added to
array
End If
fg.TextArray(array_index) = product
fg.TextArray(array_index + 1) = amount
fg.TextArray(array_index + 2) = CInt(amount) * CInt(price)
```

```
array_index = array_index + 3
If where <> 2 Then    'and frm_emp don't need e-mail on grid
fg.TextArray(array_index) = emp_mail
array_index = array_index + 1
End If

End If
If Not EOF(2) Then
Line Input #2, trans_line ' get new line from trans so as
we can compare it with m_empno
file_line_2 = file_line_2 + 1
t_empno = Mid(trans_line, 1, 3)
Else
Exit Do
End If
Wend
Loop Until EOF(1)

If where <> 2 Then Close (1)
Close (2)

End Sub

Public Sub sorter(fg As MSFlexGrid)
fg.Col = 0
fg.ColSel = fg.Cols - 1
fg.Sort = 1
End Sub

Public Sub mouse_dn(fg As MSFlexGrid)
fg.Tag = ""
```

```
If fg.MouseRow <> 0 Then Exit Sub ' just to ensure user
intended  to
  ' change colpos, if mouse down ocurrs at other than fisrt
rows pos
  ' , don't 'do any thing
fg.Tag = CStr(fg.MouseCol)
End Sub

Public Sub mouse_up(fg As MSFlexGrid)
If fg.Tag = "" Then Exit Sub
fg.Redraw = False
fg.ColPosition(Val(fg.Tag)) = fg.MouseCol ' change colpos
of col we
                              'were draging to current pos
sorter fg    ' sort it again
fg.Redraw = Tru
End Sub
```

Conclusion :

A picture is worth a thousand words.If we want to develop GUI programs ,we ll need a tool to develop GUI-based application efficiently and Visual Basic rovides an excellent ease in developing GUI-based prgrams.Visual Basic has lways made it easy to develop Windows programs,through the years it has natured into a true professional development language and environement.Even lient/server programs and robust database applications are possible now.

rogramming in Visual Basic is an event driven programming ie.events occure rough user actions.So flow of program is completely different than the aditional languages.

ly program is developed for the head office of a firm who wants to keep track f its employees as well as its performance.I used text files which were epared separately and 'Sequential File Access is used.One possible nprovement I will do is ,to use database files in which we are not needed to ovide direct file-access in our application.The data control and bound controls t us read and write data to and from which is much easier than using direct e-access techniques.But actually some times we need to read and write to es other than database.Possibly I will learn about Microsoft access which is e best tool for working with database structures.

hrough working on this application I am familiarized to Visual Basic 6.0 vironment and using tools provided by this environment as well as to work ith the event driven programming.This event driven programming is pretty

fancy field and it provides an excellent ease even for complex jobs.I learnt while doing this project and I hope I will continue learning and working in this field.