



Benha University



Faculty of Computers &  
Informatics

# Calendar Application

A summer training project submitted in partial fulfillment of the requirements for the degree of Bachelor of Computers and Informatics.

## 1<sup>st</sup> Year Students Summer Training

### *Project Team*

- 1- محيى الدين احمد فتحى احمد
- 2- مصطفى اشرف مأمون على
- 3- مصطفى عبدالمحسن حسنين عبدالمعطى
- 4- مصطفى على محمد على
- 5- معاذ عبده عبدالله عفيفى

Benha, August 2017

We hereby certify that this project, submitted by the project teamwork, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the seminar requirements for the degree of Bachelor of Computers and Informatics.

### **Discussion Committee:**

---

---

Date

---

---

Date

---

---

Date

---

## **Abstract**

This project is about calendar ,that shows the current date and time .  
It also shows occasion days of year 2017. and it can enable you to add a note  
or event to a special day when you want to do anything important in this  
day. This program tell us prayer time too .

---

## Introduction

The nature of this program that it looks like the callendar application of the Pc Windows , is shows you the months of 2017 , and the days of each month . it also tells you the number of the selected day .

There is a digital clock at the status bar that cope with the time of the system , so if you change you system's time it will change with it .

If any day has an occasion it will tell you which occasion it is , and there is an option that enables you to add a certain date and it will tell you which day of the week is it .

You can also add notes for you in other window that appear if you you pressed a certain button which name is "Add or check my Event", it allows you to add , remove , save and clear your previous events .

We have added prayer timing at the timing of cairo , and when each time of it comes there's an alarm of azan that works in a video box to pay your attention that the time of praying has come .

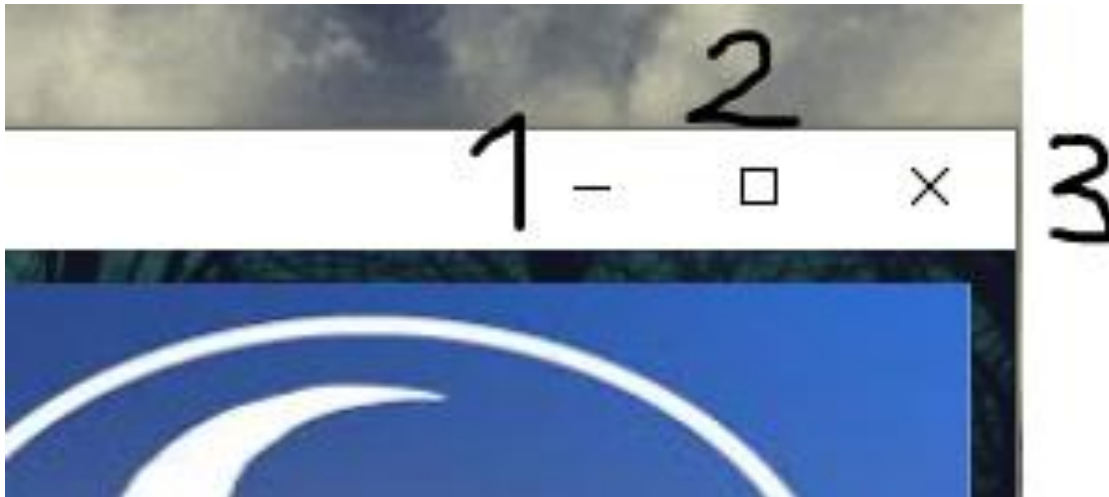
## Program Interface

First you can start the program to use it from file named as “calendar.exe” that can be found on Debug folder , and after clicking on it you will see our program’s interface as it is on the next picture :



You can see on it buttons each one of it has a function that will be executed when you press the button , there is also a fields to enter an input we will explain how it works below on input and output section .

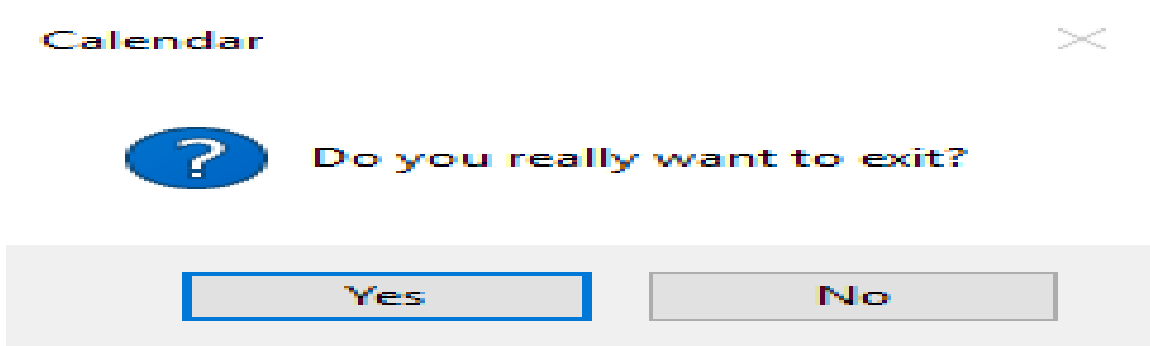
You can find three buttons on the upper right part of the the layout each one of it has it's function



-If you pressed the first button that is numbered as 1 the program window will minimize to the startbar .

-If you pressed the button num 2 the program will maximize to fullscreen .

-If you pressed the last one marked as 3 , a messagebox will pop up to ask you if you want to exit the program or no , if you choose “Yes” the program will exit , and if you choose “No” the message will disappear and you will go back to the program.

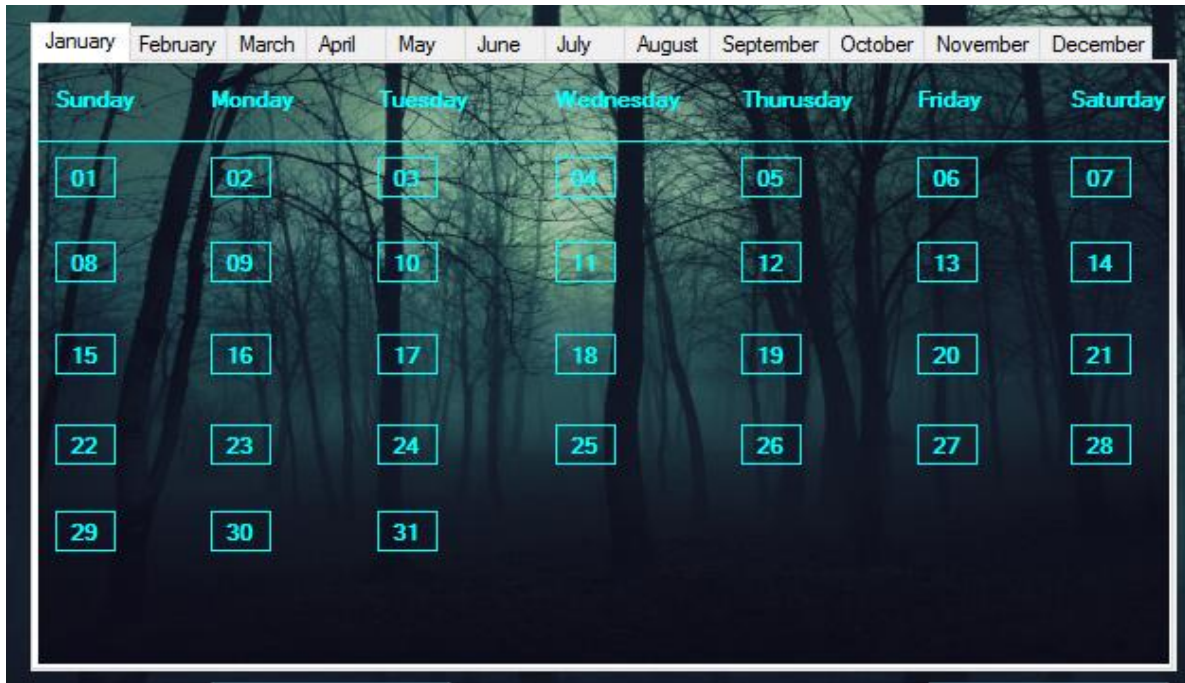


```
//Exit Warning
private: System::Void MyForm_FormClosing(System::Object^ sender, System::Windows::Forms::FormClosingEventArgs^ e) {
    if (MessageBox::Show("Do you really want to exit?", "Calendar", MessageBoxButtons::YesNo,
        MessageBoxIcon::Question) == System::Windows::Forms::DialogResult::Yes)
        Application::ExitThread();
    else
        e->Cancel = true;
}
```

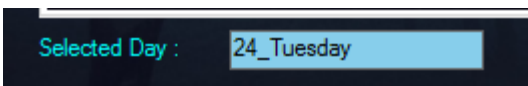
## Program Execution

In this section we will explain how the program works and how the user can communicate with it.

-On the layout you can see twelve tabs named by months of the year ,each month tab has a has a number of days arranged according to the days of the week , and the number of days varies according to the number available each month.



-If you clicked on any number of any day in this box the number and the name of that day will appear on an other box .



```
private: System::Void anybutton_Click(System::Object^ sender, System::EventArgs^ e)
{
    Button^ btn = (Button^)sender;
    textBox1->Text = btn->Text;
}
```



-If there is any occasion on the selected day it will show you what's it below the box.

January February March April May June July August September October November December

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					01	02
03	04	05	06	07	08	09
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Selected Day : 01\_Friday

Enter a date (Day/Month) :

Add or Check my Events

Find it

The day of the given date is :

Feast of the Sacrifice

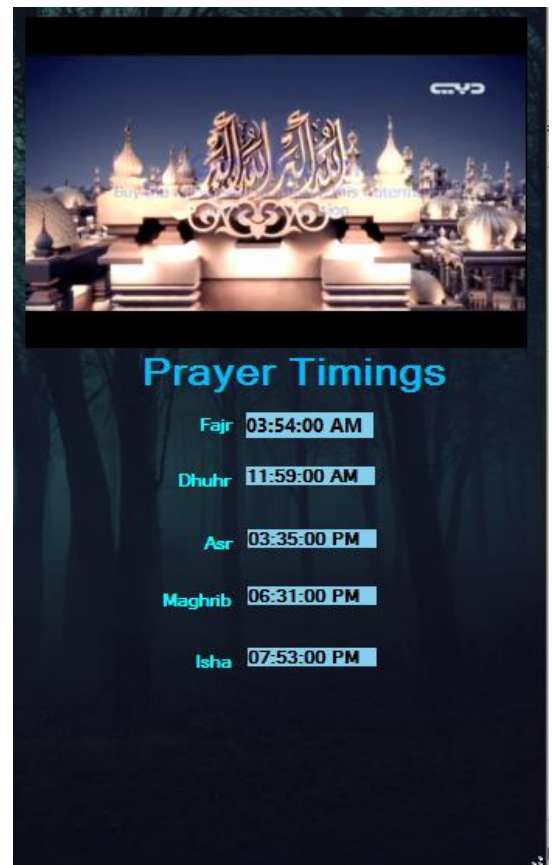
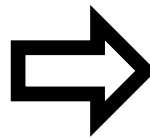
```
//occasions
private: System::Void anybutton_Click(System::Object^ sender, System::EventArgs^ e)
{
    Button^ btn = (Button^)sender;
    textBox1->Text = btn->Text;

    if ((Button^)sender == button1)
        label199->Text = "January 1 Bank Holiday";
    else if ((Button^)sender == button7)
        label199->Text = "Coptic Christmas Day";
    else if ((Button^)sender == button25)
        label199->Text = "Revolution Day January 25";
    else if ((Button^)sender == button68)
        label199->Text = "March equinox";
    else if ((Button^)sender == button67)
        label199->Text = "Mother's Day ";
    else if ((Button^)sender == button105)
        label199->Text = "Coptic Good Friday ";
    else if ((Button^)sender == button104)
        label199->Text = "Coptic Holy Saturday ";
    else if ((Button^)sender == button103)
        label199->Text = "Coptic Easter Sunday ";
    else if ((Button^)sender == button102)
        label199->Text = "Spring Festival ";
    else if ((Button^)sender == button94)
        label199->Text = "Sinai Liberation Day";
    etc.....
}
```



-On the right part of the layout you can see praying timing according to cairo time .

-If the system clock matched with any of prayer timings ,the image above the timings will change to a an azan alert video with azan audio too .

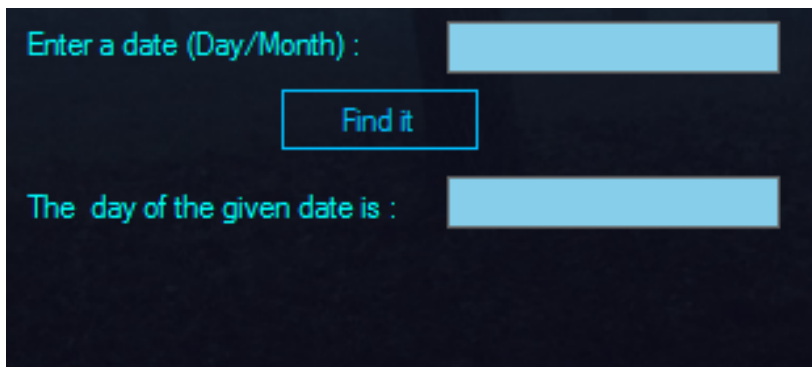


```
// System Date & Time
private: System::Void timer1_Tick(System::Object^ sender, System::EventArgs^ e) {
    toolStripStatusLabel1->Text = DateTime::Now.ToString("hh:mm:ss tt");
    if (toolStripStatusLabel1->Text == f->Text || toolStripStatusLabel1->Text == d->Text ||
        toolStripStatusLabel1->Text == a->Text || toolStripStatusLabel1->Text == m->Text ||
        toolStripStatusLabel1->Text == i->Text)
    {
        vid1->Visible = true;
        vid1->Ctlcontrols->play();
    }
    if (toolStripStatusLabel1->Text == "03:54:24 AM" || toolStripStatusLabel1->Text == "11:59:24 AM" ||
        toolStripStatusLabel1->Text == "03:35:24 PM" || toolStripStatusLabel1->Text == "06:31:24 PM" ||
        toolStripStatusLabel1->Text == "07:53:24 PM")
        vid1->Visible = false;
}
```

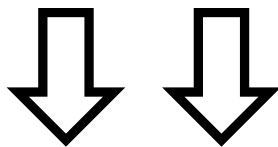
## Input and Output

Here we will show you the use on every button and input box .

-There is a part under the months box that contain two boxes and a button ,  
This section shows you which day of the week is the date you entered in the first box above , This image shows you the order of the this operation :



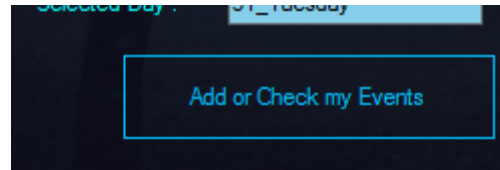
- 1-** you should enter any date you want in the first box , in this order -> dd/mm |or| dd-mm |or| dd\_mm.
- 2-** Press the button "Find it" .
- 3-** On the last box you will see the day of the week corresponding to the date you entered.



```
private: System::Void button379_Click(System::Object^ sender, System::EventArgs^ e) {
    String^ st = textBox2->Text;
    array<String^>^ result;
    array<Char>^ splitchar = { '/', '-', '_' }; //Split the input
    result = st->Split(splitchar, StringSplitOptions::None);

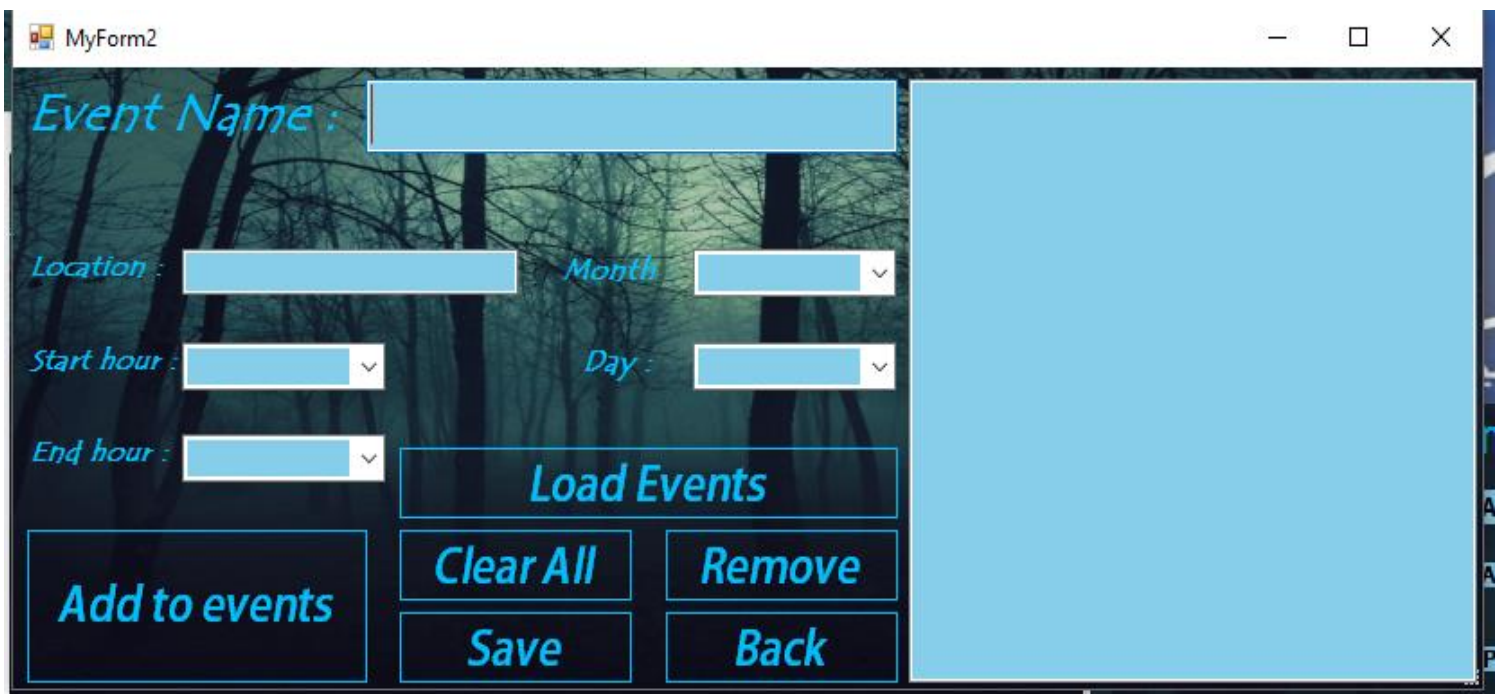
    if (result[0] == "01" || result[0] == "1" || result[0] == "8" ||
        result[0] == "08" || result[0] == "15" || result[0] == "22")
    {
        if ((result[1] == "1" || result[1] == "january" || result[1] == "jan"))
            textBox3->Text = " Sunday ";
        else if (result[1] == "2" || result[1] == "february" || result[1] == "feb")
            textBox3->Text = " Wednesday ";
        else if (result[1] == "3" || result[1] == "march" || result[1] == "mar")
            textBox3->Text = " Wednesday ";
        else if (result[1] == "4" || result[1] == "april" )
            textBox3->Text = " Saturday ";
        else if (result[1] == "5" || result[1] == "may")
            textBox3->Text = " Monday ";
        else if (result[1] == "6" || result[1] == "june")
            textBox3->Text = " Thursday ";
        else if (result[1] == "7" || result[1] == "july")
            textBox3->Text = " Saturday ";
        else if (result[1] == "8" || result[1] == "august")
            textBox3->Text = " Tuesday ";
        else if (result[1] == "9" || result[1] == "september")
            textBox3->Text = " Friday ";
        else if (result[1] == "10" || result[1] == "october")
            textBox3->Text = " Sunday ";
        else if (result[1] == "11" || result[1] == "november")
            textBox3->Text = " Wednesday ";
        else if (result[1] == "12" || result[1] == "december")
            textBox3->Text = " Friday ";
        //etc.....
    }
}
```

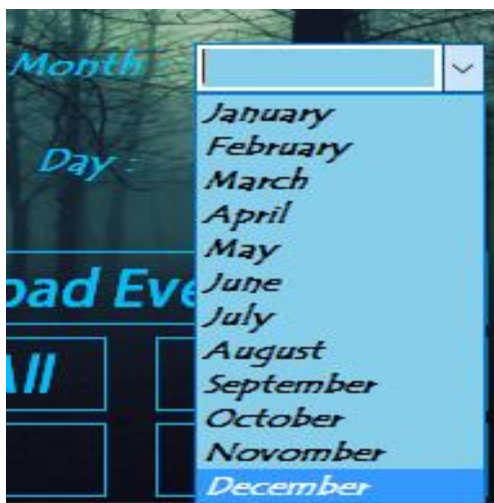
-There is also a button  
named “Add or check my Events”,



```
// Add events button
private: System::Void button381_Click(System::Object^ sender, System::EventArgs^ e) {
    MyForm2 ^frm = gcnew MyForm2();
    frm->ShowDialog();
}
```

it opens another window that allow you to save any notes or events you want  
, and remove any note or clear all notes from it .

The screenshot shows a Windows application window titled "MyForm2". The window has a dark background with a forest image. On the left, there are input fields for "Event Name", "Location", "Start hour", and "End hour", each with a corresponding label. To the right of these fields are dropdown menus for "Month" and "Day". Below the input fields are five buttons: "Add to events", "Load Events", "Clear All", "Remove", "Save", and "Back". The "Add to events" button is larger and positioned on the left. The other buttons are arranged in a grid. On the right side of the window, there is a large, empty light blue rectangular area.



“Event Name” box and “Location” box are two normal boxes that allow you to type on it .

“Month” , ”Day” , “Start hour” and “End hour” boxes already has a choices to choose from it and also allow you to type on it if you want.

Here’s an explanation for each button’s function on this window :

-Add to events : this button add the information you entered in the boxes above it to the big blue box on the right part .

```
//add button
private: System::Void button3_Click(System::Object^ sender, System::EventArgs^ e) {
    String^ rec = "Month->" + monbox->Text + "\t" + "Day->" + daybox->Text + "\n" +
        "StartTime->" + sbox->Text + " " + "EventName->" + evenbox->Text + "\n" +
        "EndTime->" + enbox->Text + " " + "Location->" + locbox->Text + "\n" + "-----" + "\n";
    Events->Items->Add(rec);
}
```

-Load Events : this button will load your saved previous Events to the big blue box on the right part .

```
//Load Button
private: System::Void button6_Click(System::Object^ sender, System::EventArgs^ e) {
    System::IO::StreamReader^ outfile = gcnew System::IO::StreamReader("Events1.txt");
    Events->Items->Clear();
    while (!outfile->EndOfStream)
    {
        Events->Items->Add(outfile->ReadLine());
    }
    outfile->Close();
}
```

-Clear All : this button will remove everything from the big blue box but it won’t be saved.

```
//Clear Button
private: System::Void button5_Click(System::Object^ sender, System::EventArgs^ e) {
    Events->Items->Clear();
}
```

-Remove : this button will remove only the selected line from the big box.

```
//Remove Button
private: System::Void button4_Click(System::Object^ sender, System::EventArgs^ e) {
    Events->Items->Remove(Events->SelectedItem);
}
```

-Back : this button will take you back to the main window of the program .

```
//back button
private: System::Void button2_Click(System::Object^ sender, System::EventArgs^ e) {
    this->Close();
}
```

-Save : this button will save every this on the big box so that you can load it again any time you want .

```
//save button
private: System::Void button1_Click(System::Object^ sender, System::EventArgs^ e) {
    System::IO::StreamWriter^ savefile = gcnew System::IO::StreamWriter("Events1.txt");

    for (int i = 0; i < Events->Items->Count; i++)
    {
        savefile->WriteLine(Events->Items[i]);
    }
    savefile->Close();
}
```



## Examples

Here's examples about each part of the program :

-Clicking on a day and displaying it's number and name

January February March April May June July August September October November December

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
01	02	03	04	05	06	07
08	09	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Selected Day : 31\_Tuesday

Enter a date (Day/Month) :

-Finding which day is the inputed date

January February March April May June July August September October November December

01	02	03	04	05	06	07
08	09	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Selected Day :

Enter a date (Day/Month) : 25/1

Find it

The day of the given date is : Wednesday

Add or Check my Events



-Adding in the Events window :

MyForm2

Event Name : BFCI

Location : banha Month : August

Start hour : 9:00 AM Day : 23

End hour : 2:00 PM

Load Events

Add to events  
1- clicked

Clear All Remove

Save Back

Month->August Day->23  
StartTime->9:00 AM EventName->BFCI  
EndTime->2:00 PM Location->banha

-Load button in Events window :

MyForm2

Event Name :

Location : Month :

Start hour : Day :

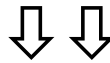
End hour :

Load Events Clicked

Add to events

Clear All Remove

Save Back



MyForm2

Event Name :

Location : Month :

Start hour : Day :

End hour :

Load Events

Add to events

Clear All Remove

Save Back

Month->August Day->23  
StartTime->9:00 AM EventName->BFCI  
EndTime->2:00 PM Location->banha

Month->April Day->31  
StartTime->10:30 PM EventName->BF  
EndTime->11:30 PM Location->Na

-Remove button in Events window:

MyForm2

Event Name :

Location :  Month :

Start hour :  Day :

End hour :

Load Events

Add to events Clear All Remove Save Back

Month->August Day->23  
Start Time->9:00 AM EventName->BFCI  
End Time->2:00 PM Location->banha

Month->April Day->31  
Start Time->10:30 PM EventName->BF

3-line removed



MyForm2

Event Name :

Location :  Month :

Start hour :  Day :

End hour :

Load Events

Add to events Clear All Remove Save Back

Month->August Day->23  
Start Time->9:00 AM EventName->BFCI  
End Time->2:00 PM Location->banha

Month->April Day->31  
Start Time->10:30 PM EventName->BF  
End Time->11:30 PM Location->Na

1-Select a line

2-click remove

-Clear button in Events window :

MyForm2

Event Name :

Location :  Month :

Start hour :  Day :

End hour :

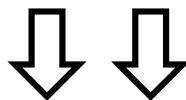
Load Events

Add to events Clear All Remove Save Back

Month->August Day->23  
Start Time->9:00 AM EventName->BFCI  
End Time->2:00 PM Location->banha

Month->April Day->31  
Start Time->10:30 PM EventName->BF  
End Time->11:30 PM Location->Na

1- click clear all



MyForm2

Event Name :

Location :  Month :

Start hour :  Day :

End hour :

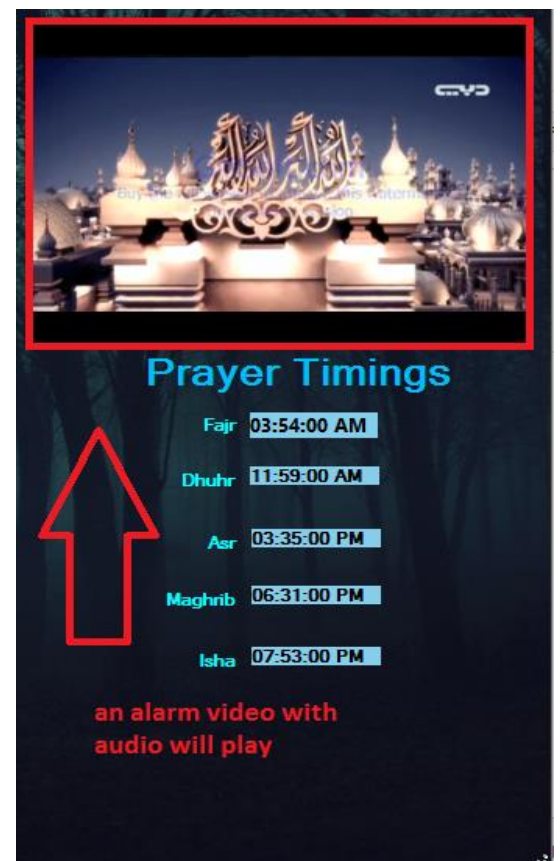
**Load Events**

**Add to events** **Clear All** **Remove**

**Save** **Back**

2- Everything here was cleared

-Azan alarm video :



## **Conclusion**

At the end i want to tell you again that this program I a calendar program that shows you the days and months of 2017 and the current time , and it can tell you which day of the week is when you enter any date of year , and it has a note on it for you to add any personal events ,it has prayer timing and azan alarm video .

