

Code for finding Age in Days Months Years format

Hi All

We all know we don't have calendar control in AWT API or in Swing API. Which make very difficult. Well! We can do it in other way.

If you want to keep calendar in your Java GUI Application using NetBeans then here is a small tutorial. Here I am presenting one simple Application using JCalendar control for calculating the age of a person.

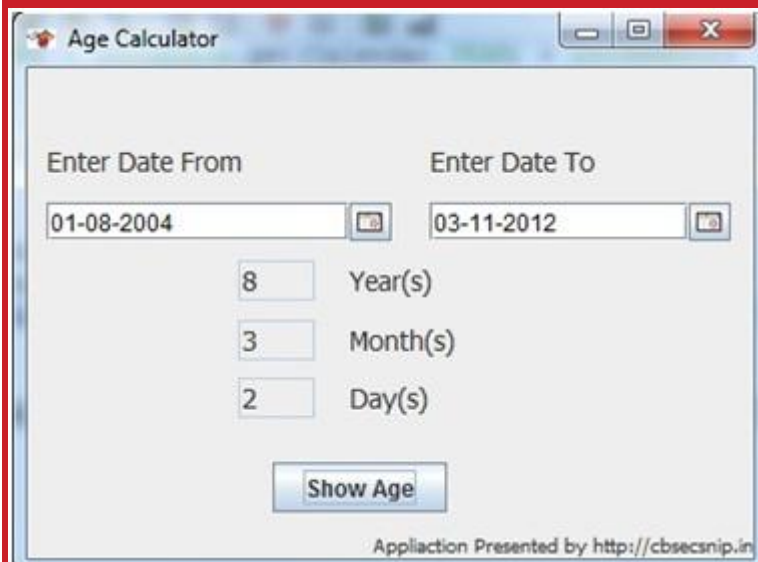


Figure - 1

Steps for developing Age Calculator using Java:

- You will need to download the [JCalendar package](http://www.cbsecsnip.in/cbse-cs-n) from here <http://www.cbsecsnip.in/cbse-cs-n> them who gave us a very useful control.
- After downloading and opening the rar file, you will get multiple sets of folders. The file which and Figure – 3.

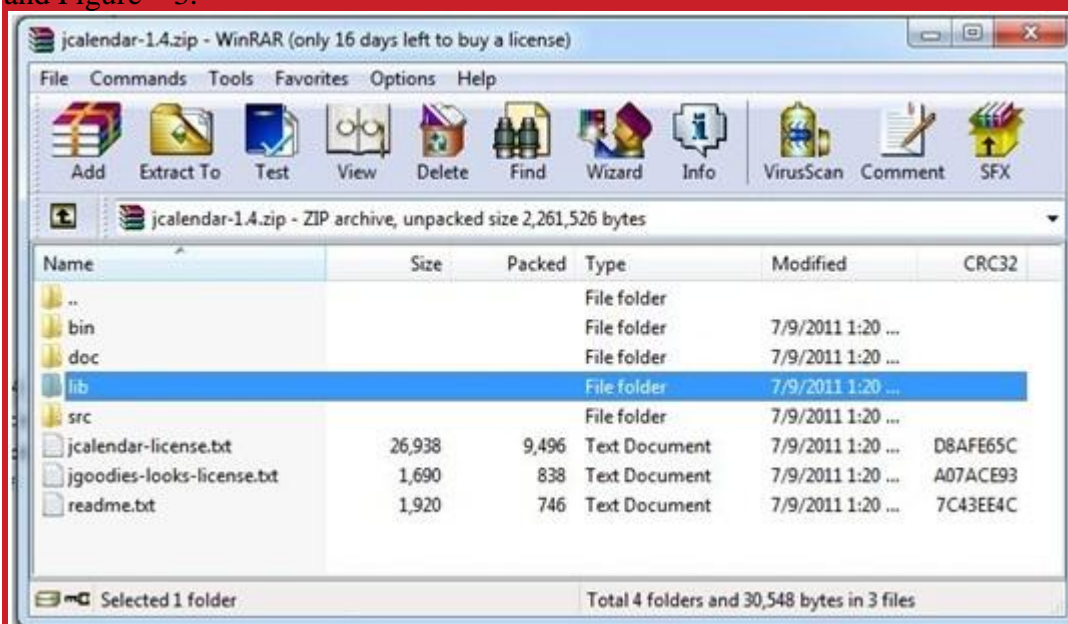
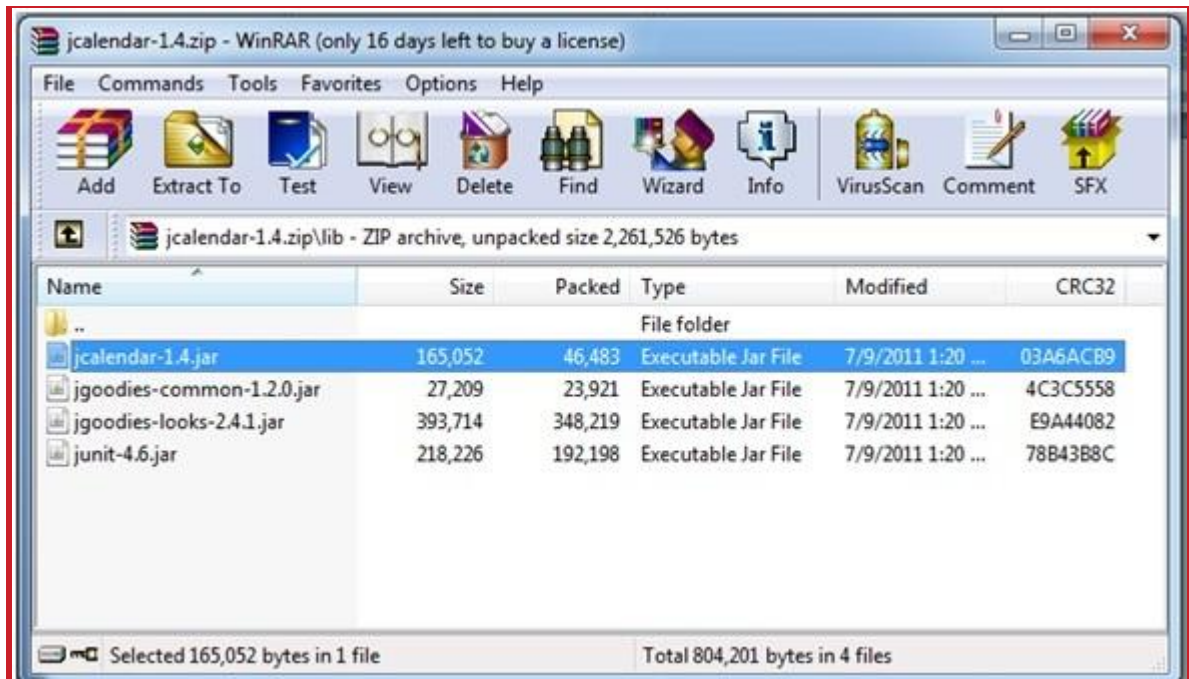


Figure - 2



Figure

c. Now create a New GUI Project in NetBeans and design it as shown in figure – 4

Enter Date From Enter Date To

Year(s)

Month(s)

Day(s)

Appliaction Presented by <http://cbsecsnip.in>

Figure - 4

d. For adding calendar control on frame, you have add JCalendar-1.4.jar in you Palette window. You can find it at the bottom of the menu you can see Palette Manager... tab, click on Palette Manager tab. See figure

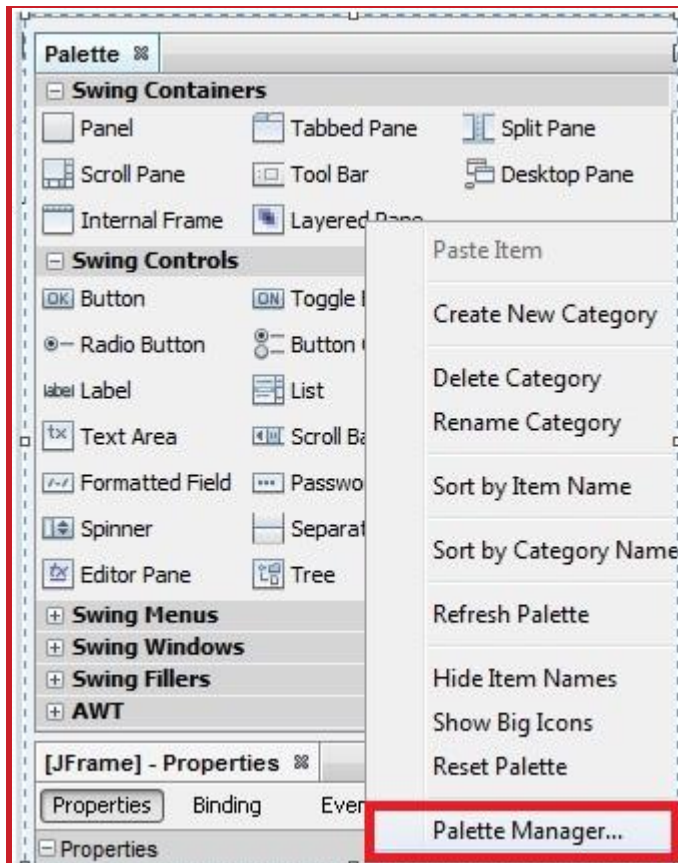


Figure - 5

e. Next step is to extracted JCalendar jar file in palette list. Follow the figures –

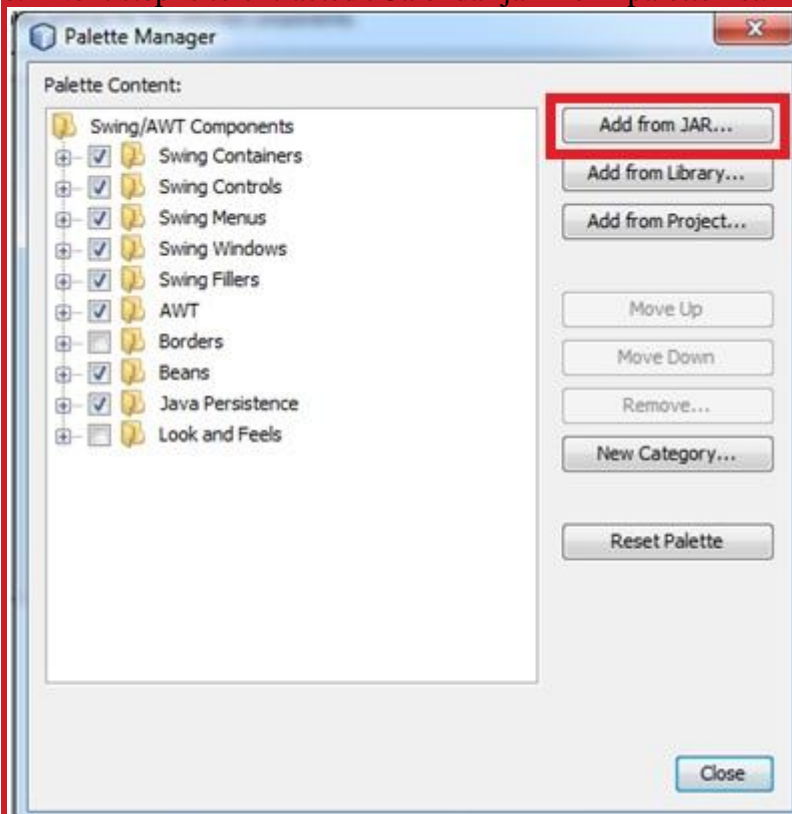


Figure – e.1 Click on Add From JA

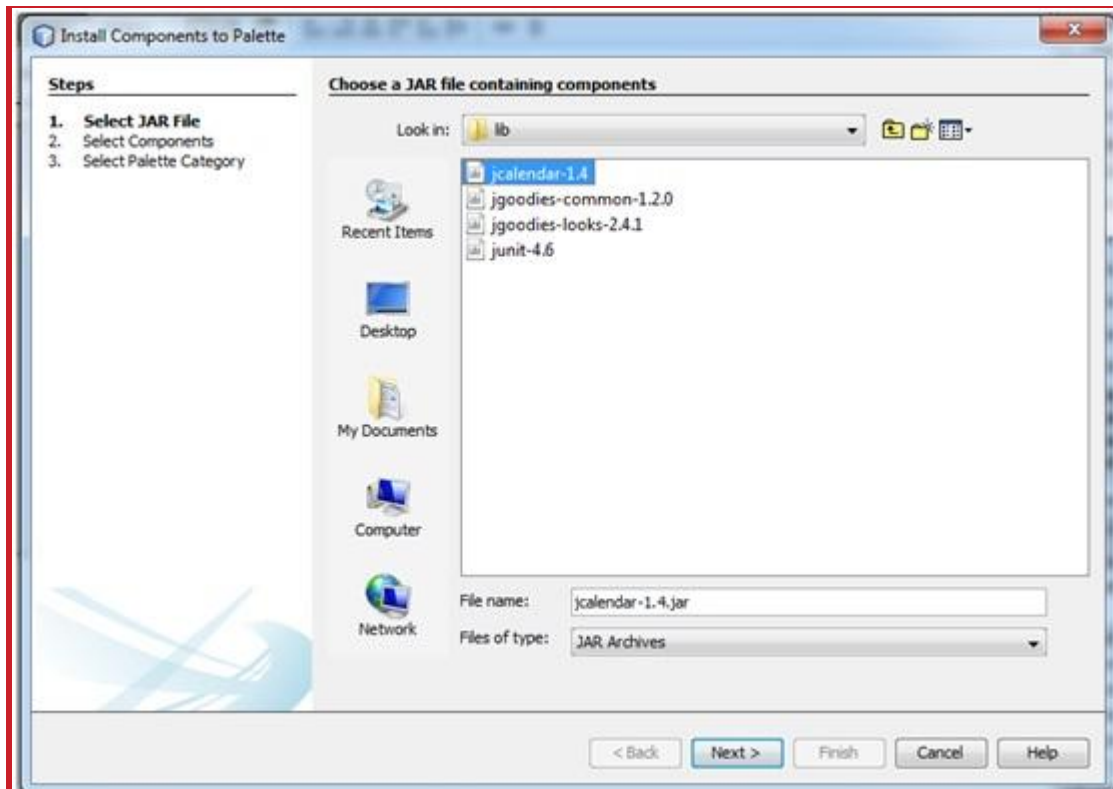
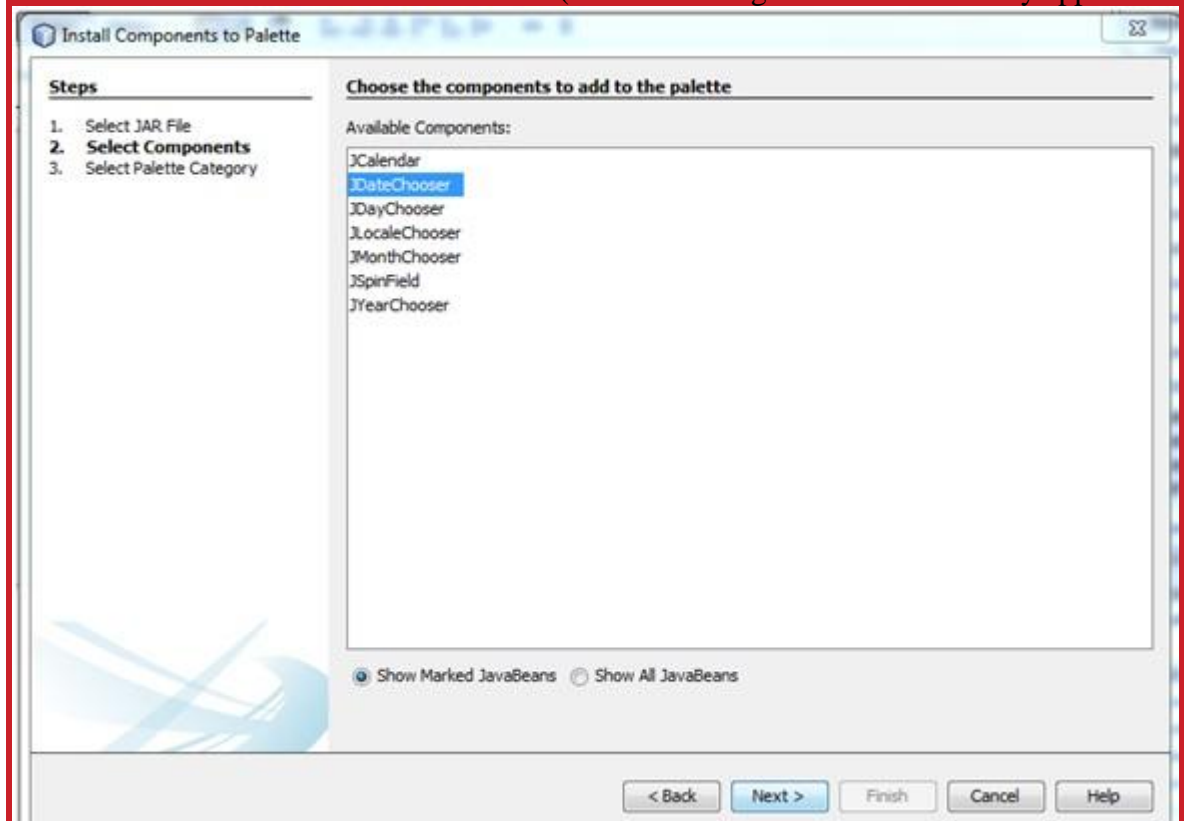


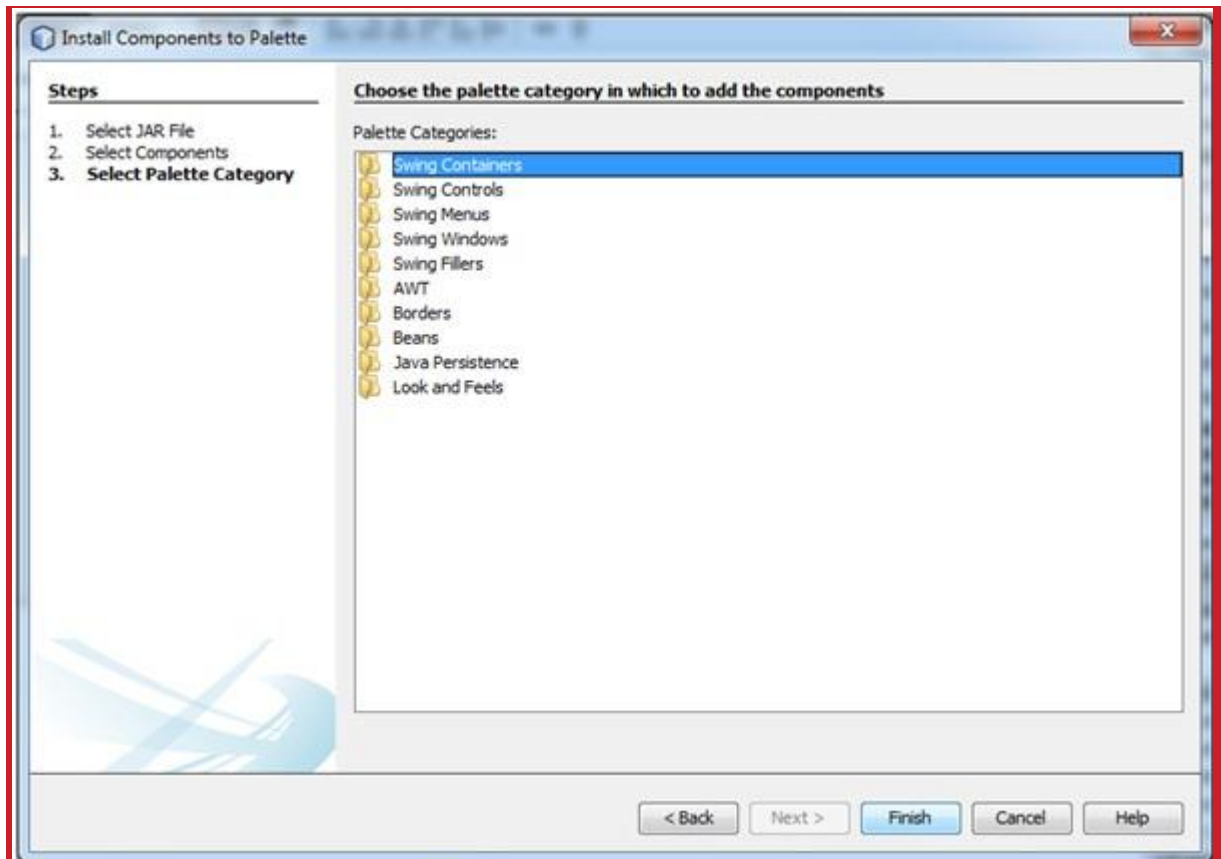
Figure – e.2

Now select the JDateChooser from the list (here I am using JDateChooser in my application) you can



Figure

Select the category in which you want to add the control from the shown list and just click on Finish



Fig

And finally close the Palette Manager window.

Now JDateChooser is added in your Palette window in category which you select in Fig – e.4.

f. Drag and Drop 2 JDateChooser controls and 3 JTextField controls on you JFrame.

g. Unselect the enabled property of JTextField controls, so the value cannot be modified by user.

h. Now open the Source Code window and start writing the code.

Inside the *ageCalculation()* Method given below-

```
public void ageCalculation()
{
    Date dt1=jDateChooser1.getDate();
    Date dt2=jDateChooser2.getDate();
    fromDate=Calendar.getInstance();
    toDate=Calendar.getInstance();
    if(dt1.after(dt2))
    {
        fromDate.setTime(dt2);
        toDate.setTime(dt1);
    }
    else
    {
        fromDate.setTime(dt1);
        toDate.setTime(dt2);
    }

    increment=0;
    ///
    ///day calculation
    ///
    if(fromDate.get(Calendar.DAY_OF_MONTH) > toDate.get(Calendar.DAY_OF_MONTH))
    {
        increment=monthDay[fromDate.get(Calendar.MONTH)];
    }
    if (increment == -1)
```

```

        {
            if(fromDate.getActualMaximum(Calendar.DAY_OF_MONTH)==29)
            {
                increment=29;
            }
            else
            {
                increment=28;
            }
        }
        if (increment != 0)
        {
            ageDays = (toDate.get(Calendar.DAY_OF_MONTH) + increment) - fromDate.get(Calendar.DAY_OF_MONTH);
            increment = 1;
        }
        else
        {
            ageDays= toDate.get(Calendar.DAY_OF_MONTH) - fromDate.get(Calendar.DAY_OF_MONTH);
        }
        ///
        ///month calculation
        ///
        if ((fromDate.get(Calendar.MONTH)+increment ) > toDate.get(Calendar.MONTH))
        {
            int mcal=fromDate.get(Calendar.MONTH)+increment;
            toDate.add((Calendar.MONTH)+12, - mcal);
            ageMonths=toDate.get(Calendar.MONTH);
            increment = 1;
        }
        else
        {
            int mcal=fromDate.get(Calendar.MONTH)+increment;
            toDate.add(Calendar.MONTH, - mcal);
            ageMonths=toDate.get(Calendar.MONTH);
            increment = 0;
        }
        ///
        /// year calculation
        ///
        ageYear = toDate.get(Calendar.YEAR) - (fromDate.get(Calendar.YEAR) + increment);

        ///
        /// display age in year, month,day
        ///

        jTextField1.setText(Integer.toString(ageYear));
        jTextField2.setText(Integer.toString(ageMonths));
        jTextField3.setText(Integer.toString(ageDays));
    }
}

```

For calling the method *ageCalculation()*, write the following statement -
`ageCalculation();`

Inside `private void jButton1ActionPerformed(java.awt.event.ActionEvent evt){ }` i.e. in the `ActionPerformed()` method.

You need to import some package at the top of the code –

```

import javax.swing.ImageIcon;
import java.util.Calendar;
import java.util.Date;

```

You have declare few array, variables and objects at the class level, which are –

```

int monthDay[] = { 31, -1, 31, 30, 31, 30, 31, 31, 30, 31, 30, 31 };
int ageDays;int ageMonths;int ageYear;
Calendar fromDate;Calendar toDate;
int increment;

```

While constructor initialize the object and components at that time you have to set the format and date.

```
jDateChooser1.setDateFormatString("dd-MM-yyyy");  
jDateChooser2.setDateFormatString("dd-MM-yyyy");  
jDateChooser1.setDate(Calendar.getInstance().getTime());  
jDateChooser2.setDate(Calendar.getInstance().getTime());
```

After completing all steps as mentioned in this tutorial execute the program and calculate the Age of the person.
If you have any question regarding this tutorial feel free to contact us at cbsecsnip.in.

Regards
Vishal Deb
Author

How to make window setup of a Java

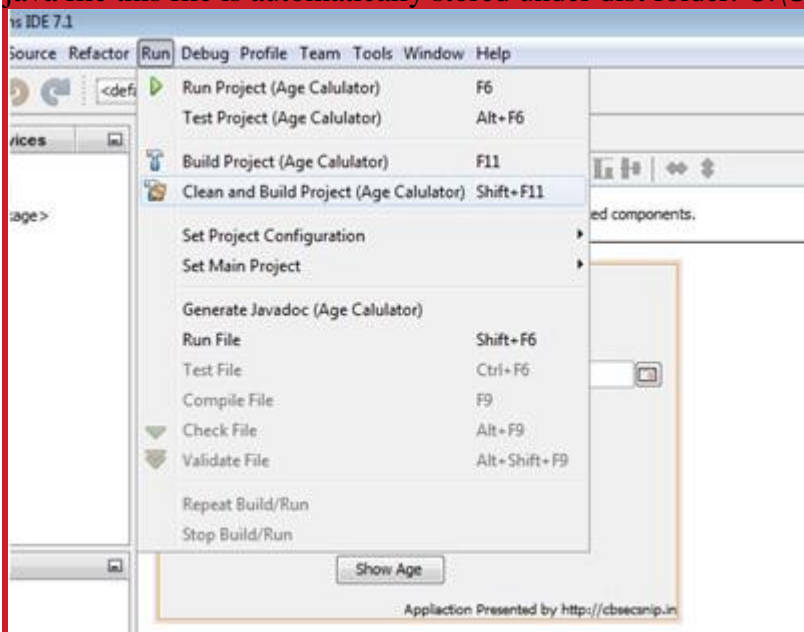
Welcome to cbsecsnip tutorial section. In this tutorial I'm going to demonstrate and explain how to make a window setup for a Java application. The software which are used for this entire demonstration are listed below-

- Windows 7,
- [JDK 1.7,](#)
- [Netbeans 7.1,](#)
- [jCalendar 1.4,](#)
- [install4j 5.1.3](#)

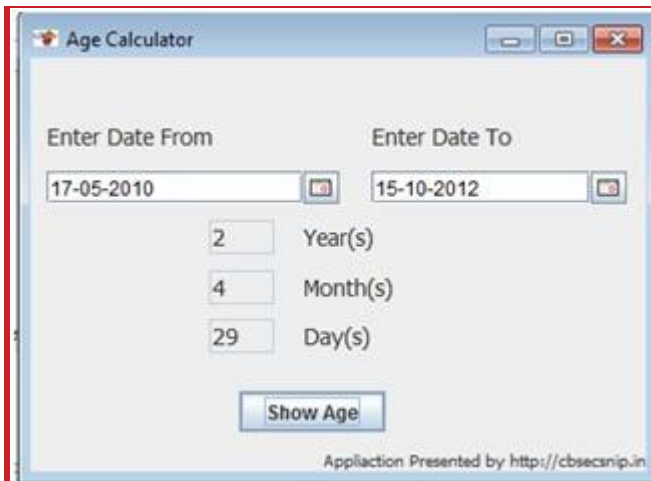
You can use any version as per your project requirement. You can download above software from [here](#). Minimum required software for creating setup for Java Application -

- JDK
- Netbeans
- install4j (I'm using this software for creating setup, other software are also available for same purpose). Here we go

1. Create JAR file (an executable file of Java Application) of your application by using Netbeans. Click on Run button in Netbeans IDE. The java file this file is automatically stored under dist folder. C:\Users\Vishal\Documents\NetBeansProjects\AgeCalculator\dist\AgeCalculator.jar



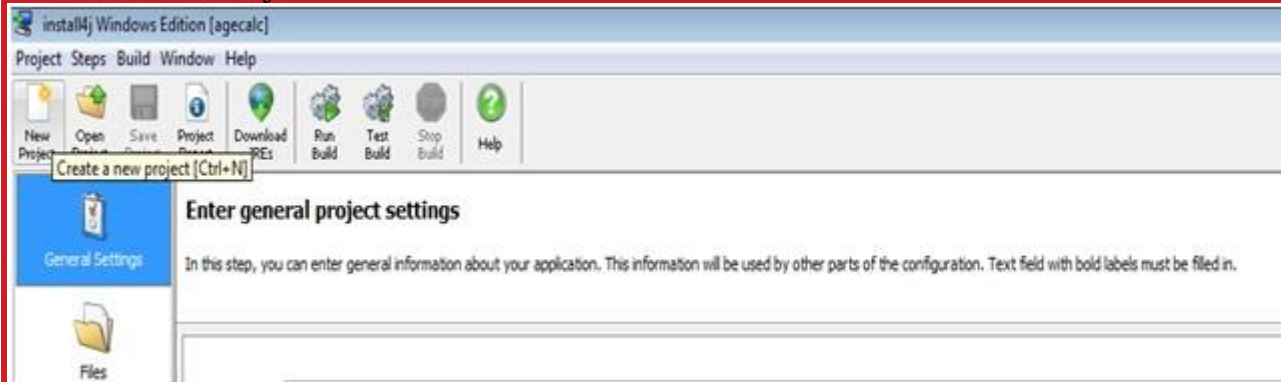
2. Close Netbeans and check the jar file by double clicking it whether it is executing properly or not.



3. Now start install4j.



4. Click on New Project.

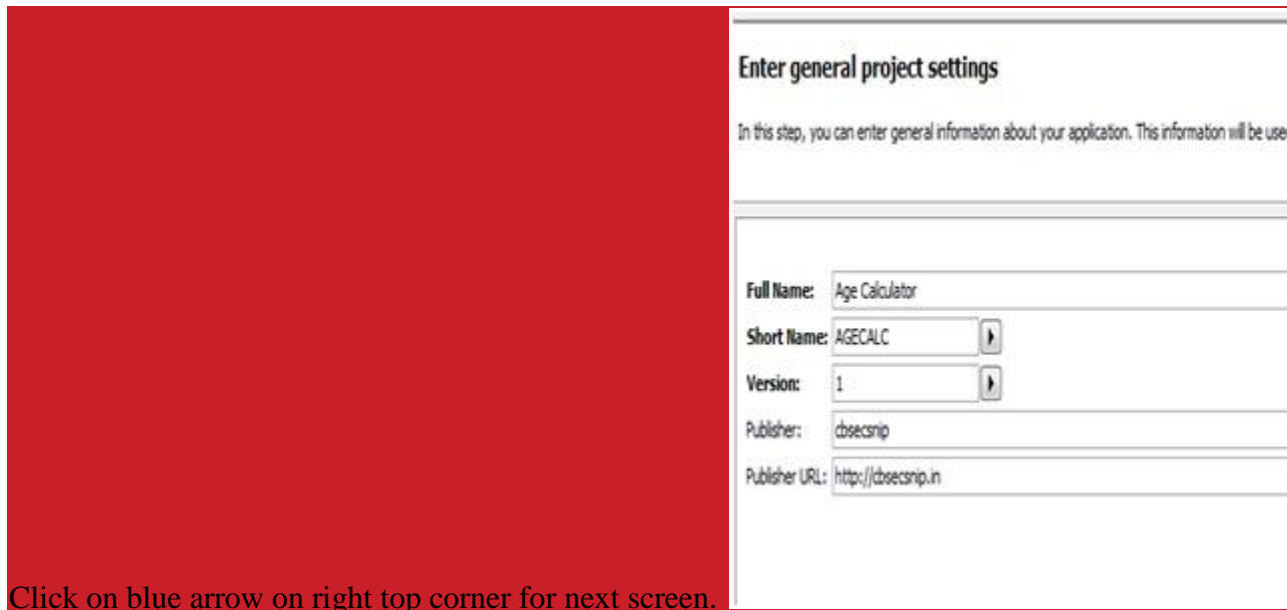


5. Open New Project by clicking on Open a new window button.



6. Now fill up with following information

- Full Name –Name of your setup project for your reference. Your choice.
- Short Name – This name will be used for your SETUP file. Your choice.
- Version – Version of your setup. Your choice.
- Publisher – Optional, you can provide your name here.
- Publisher URL – Optional, if you have website then mention the URL of website.

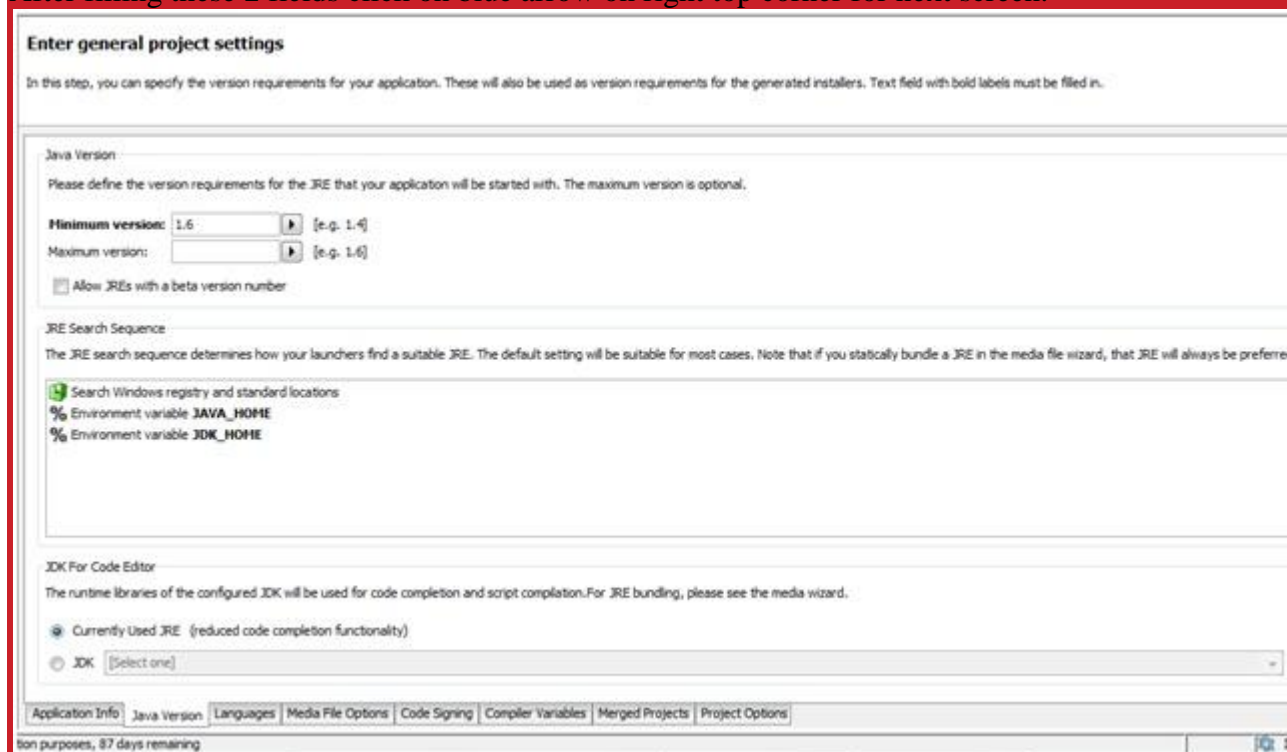


Click on blue arrow on right top corner for next screen.

7. In this step, you can specify the version requirements for you application.

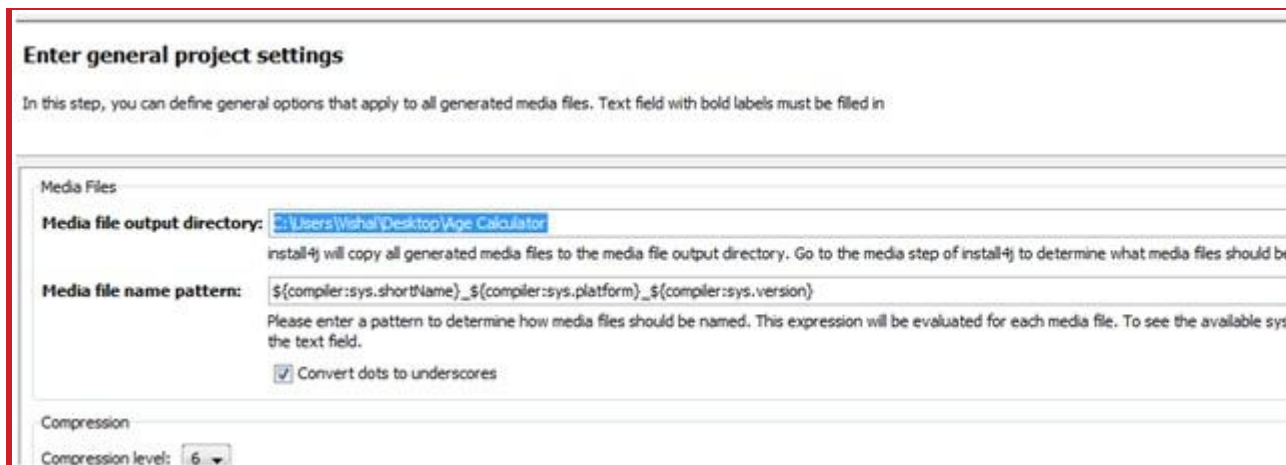
- Minimum version – Enter the minimum JDK version required for executing your application.
- Maximum version – Enter the maximum JDK version required for executing your application.

After filling these 2 fields click on blue arrow on right top corner for next screen.



8. In this step, leave all the setting default and move to next screen.

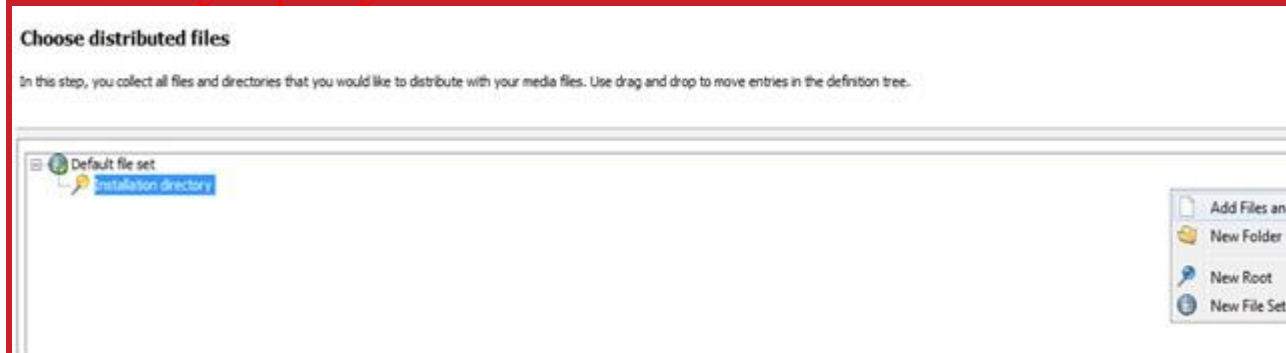
9. Select the folder where you want to save the setup file, which will generated by install4j. I stored



10. In this step, leave all the setting default and move to next screen.
11. In this step, leave all the setting default and move to next screen.
12. In this step, leave all the setting default and move to next screen.
13. Select the 1st option Make all path relative when saving the project file. And click on arrow.

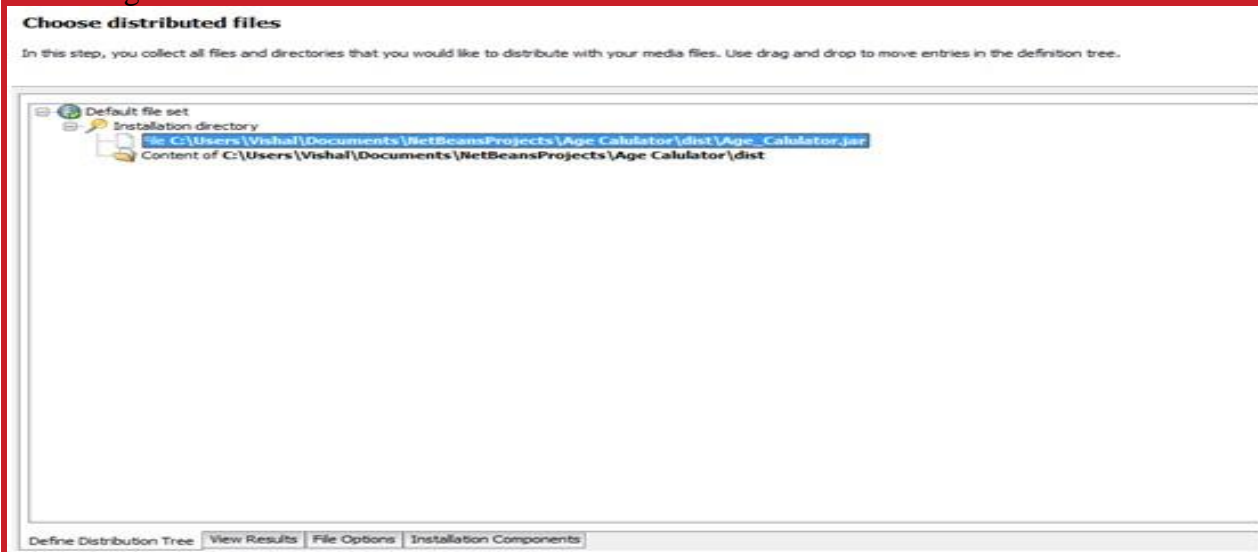


14. This step is very important, here you have to select the files and folders you want to include in your project.
a. Click on green plus sign--> Add Files and Directories

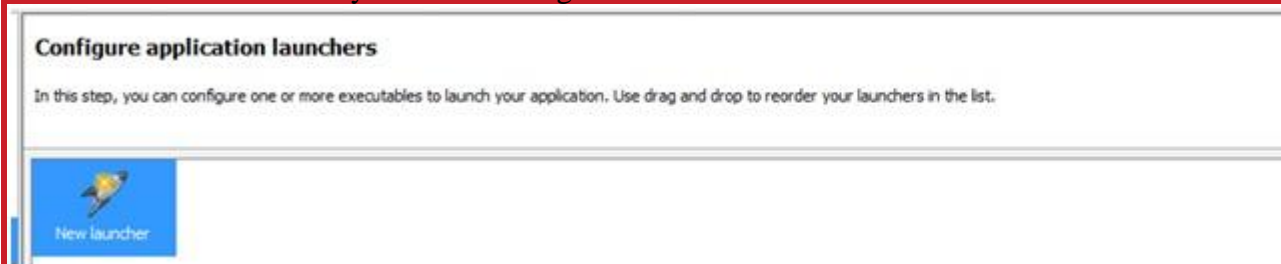


- b. Now select the Directory option from the Add Files and Directories window and click on Next.
- c. Select your main .jar file directory. In our case we have C:\Users\Vishal\Documents\NetBeans\src\AgeCalculator.jar
- d. Then click on Next button and move on 4th frame that is **Excluded Files and Directories** (see screenshot).
- e. Here select the files and directories which you don't want to include in your setup project.
- f. And move up to last frame without making any changes and finally click on OK.
- g. Now here I will add additional 3rd party components which I used in my Age Calculator project.
- Note: You must include all those extra files and folders which you have used in your Java Application.
- h. Again Directory option from the Add Files and Directories window and click on Next.
- i. On the first screen select Single File option and move to next window.

j. Click on the Green PLUS button and then select Browse For File, select your desired file. Here up to the last screen of the step and click OK.
You will get a screen similar to this –



This shows that you successfully included all files and folders you need for the setup file to install.
15. This window displays your installation tree structure, How your application will be installed on the target machine.
16. Now simply move to the Configuration Application Launcher window step by clicking on Blue Plus button.
17. Select New Launcher by double clicking on the New Launcher Icon.



18. In Select Launcher Type window -> **Select Generate Launcher.**
19. In this screen you have fill the detail of your application executable file i.e. .exe file.
a. Select **GUI application from Executable type group.**
b. Give the name of your .exe file, I gave Age Calculator, you may give name as per your choice.
c. Click on Next



20. Leave blank and click on Next

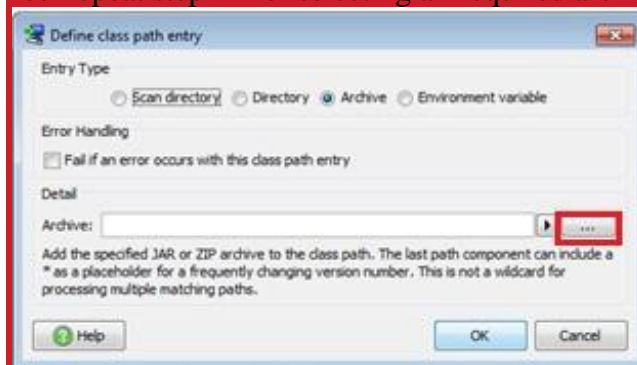
21. Here you have to add your .jar files. Click on Green Plus button and you will Define class path e

22. Select the .jar file you created in Netbeans. And all other .jar files which are used in your Project

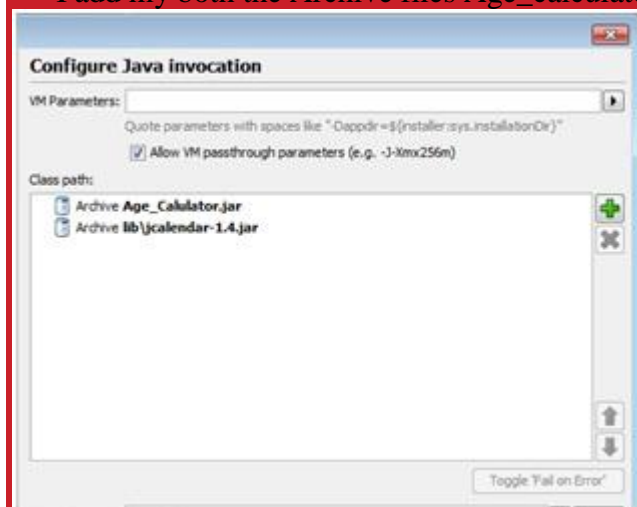
23. Then click on browse button to select Archive files.

24. Select the archive files from the list of files.

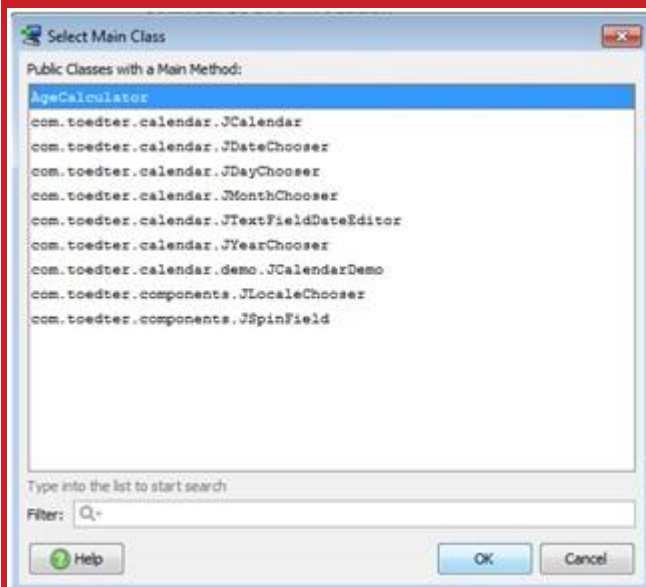
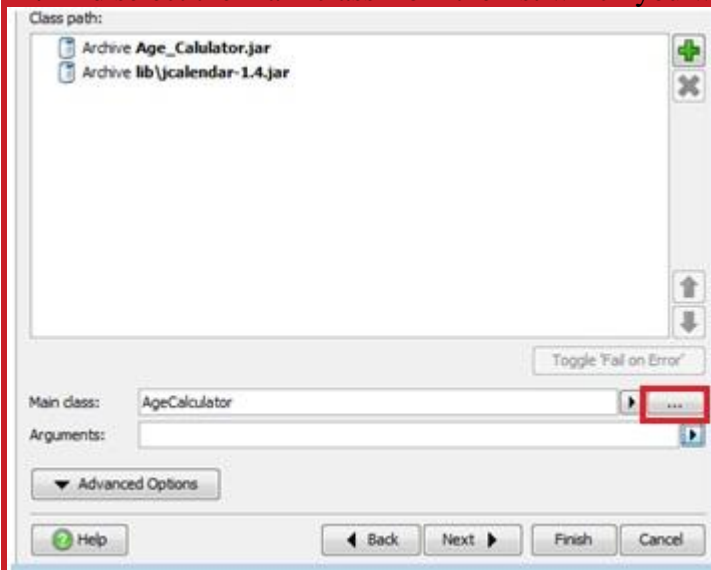
25. Repeat step 24 for selecting all required archive files.



I add my both the Archive files Age_calculator.jar (created by me using Netbeans) and jcalendar



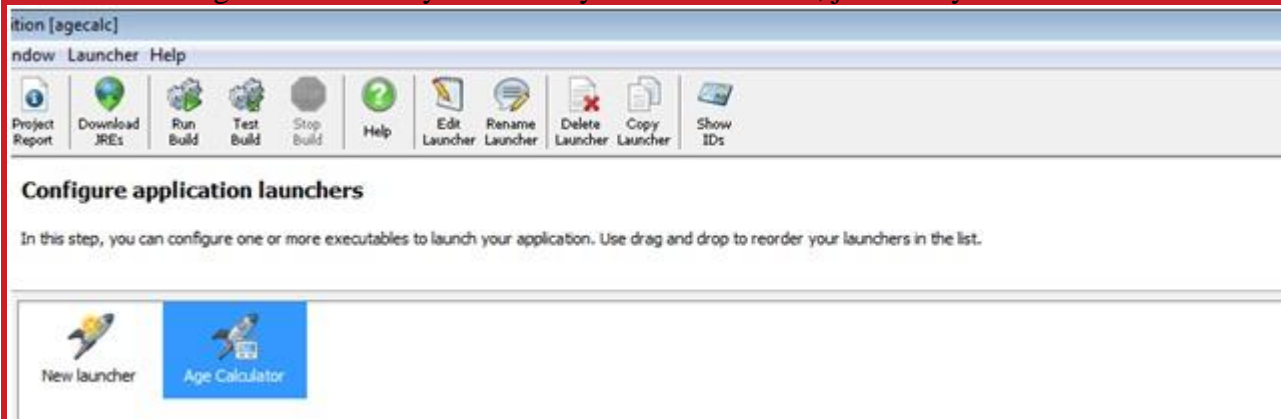
26. Now add the main class of your application. Click on the browse button of Main Class
27. And select the main class from the list which you want to start from.



You will get the name of your main executable class in front of Main class.

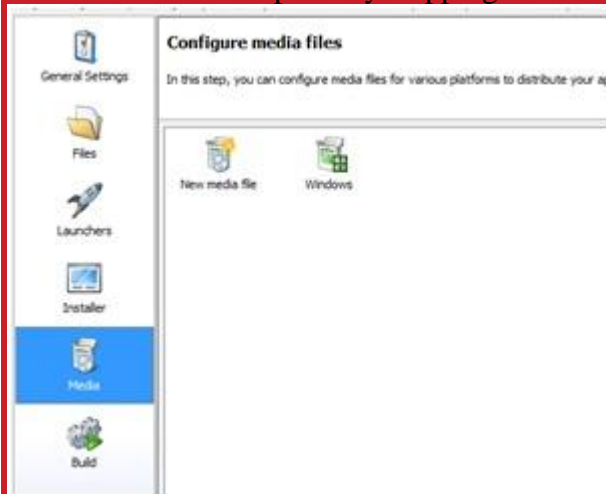
Click on Next button and skip all coming screens and finally click on OK button to complete this step.

After clicking on OK button you can see your new launcher, just now you created.



28. Move to Next window

29. Click on Media option by skipping Installer option from Left side of the pane. This step will give



30. Double on New media file.

31. In create Media File window, select Windows from Installer type: and click on Next button.

32. Give the name of the setup file and installation directory where you want to install your applicat



Now go to **Bundle a JRE with your application** by selecting **6. Bundle JRE** option from left pane on which your application was developed and can run perfectly.

My application is developed on JRE 1.7.0_9 so I should include this, because many may not ha

33. Select the Bundle the following JRE: option and choose your JRE from the list of JREs.

34. Next Select the option Static Bundle (distribute with media file).

35. Select Install as a shared JRE.

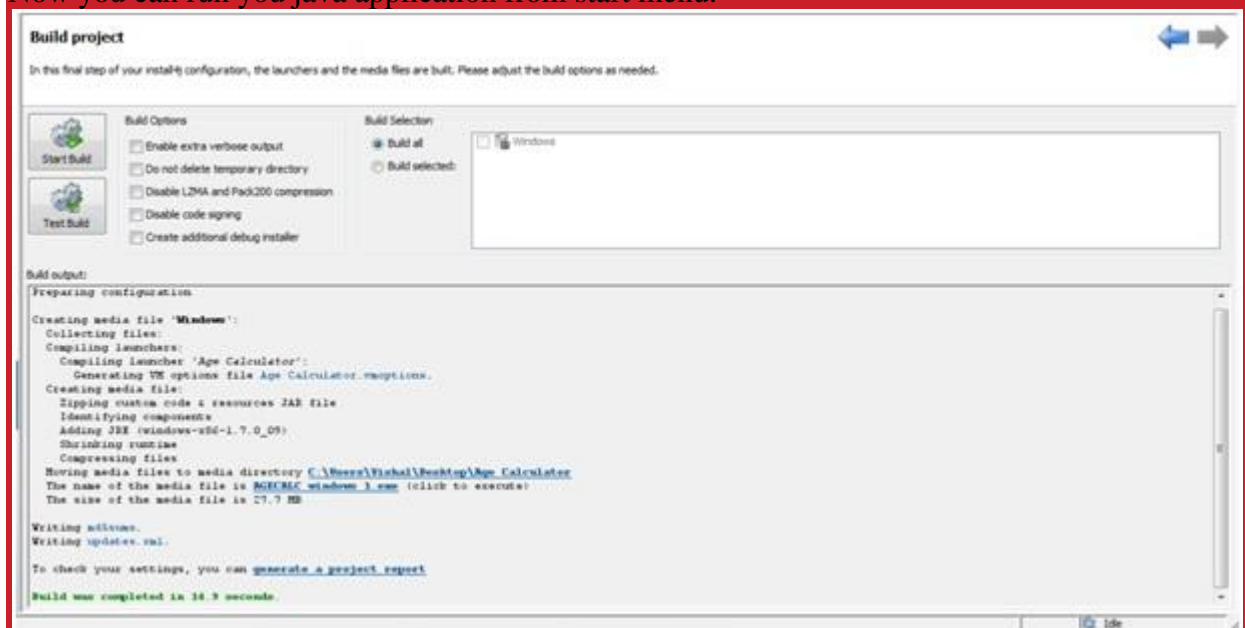
36. Click on Finish button. And finally click on OK button. And move to the next window by clicki



Note: If you don't have distributable JRE package then you can download at this time as per your settings.

37. Finally you reached to the final and last step. **Click on Start Build Button.** You will get a message per your settings.

38. If everything is OK then you may get the output as shown in figure. After the successful build operation your setup file is store under the folder your selected in step 9. I have selected 'Windows' as my target platform and you can find the installed application on c:\ drive. Now you can run you java application from start menu.





I tried to explain all minimum requirements for creating a setup file of a Java Application which is a tutorial. If you need to know anything more regarding creating setup file, then please feel free to [contact me](#).

Regards
Vishal Deb
Author

One very simple and common question –

Write a program in C++ for saving new record of a student, editing or deleting of an existing record of a student.

Generally we use plain text file (.txt) for performing the tasks mentioned in the question. We learn this traditional method of doing these tasks in our school or college.

But thing if someone gives you a simple text file containing 500 records of students and ask you to manage and manipulate it like sort it on Student Name, Add a new record after a given specific record. What will be your condition? It's like a NIGHT MARE.

Well don't worry in this tutorial, I'll show you a How MS Excel and C++ do hand shaking. But before we start our mission you have to be ready with some tools and resources.

Precaution: If you have a 16 bit compiler like Turbo C/C++ for DOS, you may face lots of issues like linking with .dll files, compilation process as we will use 3rd party library files.

More over Turbo C++ is good for learning and practicing basic concepts of C++. In reality now a days there are many modern and advance C++ compilers are available in market. In this tutorial I am going to use

Let's start with all these Prerequisites –

You can download all above mentioned software from our website <http://cbsecsnip.in/cbse-cs-n-ip-/software.php>, install and configure them on your system.

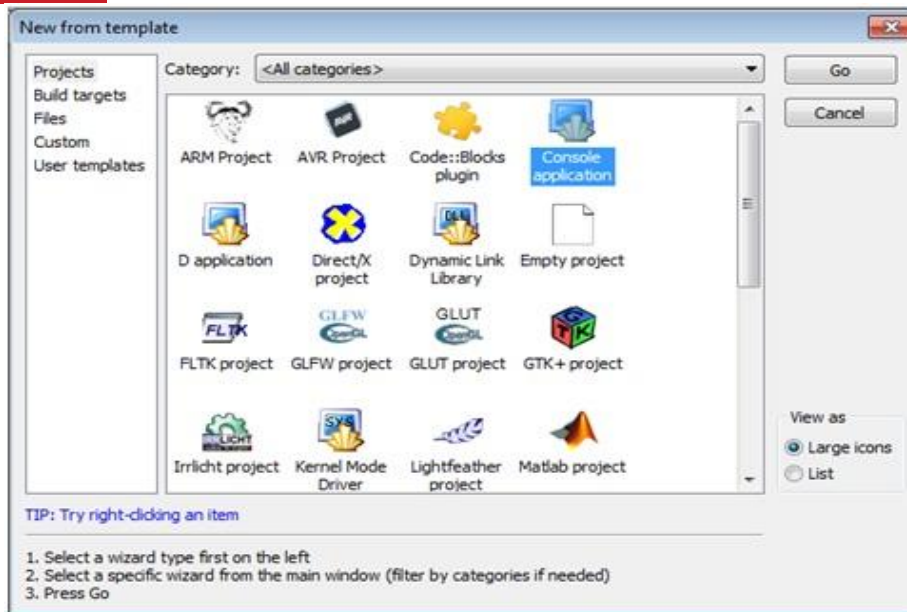
Assuming you are ready with all settings.

Open Code::Blocks IDE



Start a New project from File->Project

Select Console Application in New from Template window and click on Go Button.



Click on Next button on this window and move to next window.

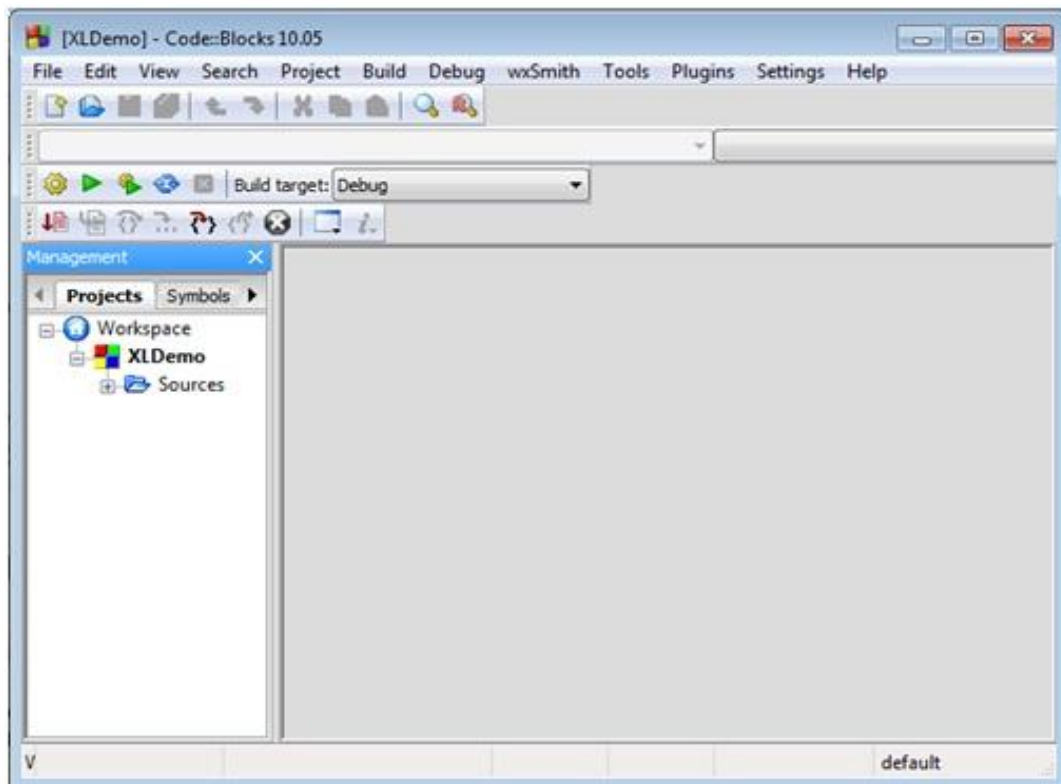
Select C++ and click on Next, move forward.

Give a name to your project, here my project name is XLDemo.

Select the folder where you want to save your project, my folder is C:\excelandc++\

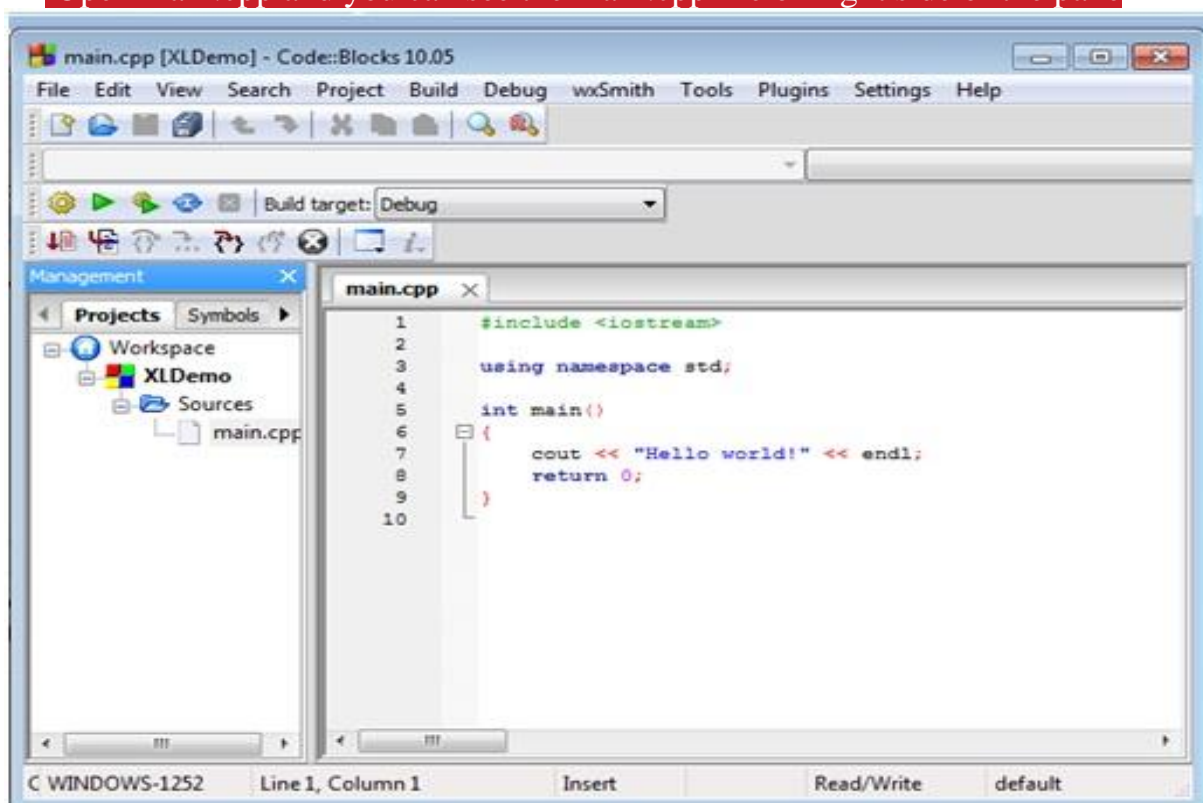
In next window nothing to be change just move to the next window. Before going to next window check compiler it should be "GNU GCC Compiler".

Now your project is created and you are seeing a screen almost lie this



Expand the Sources folder by double clicking on Sources or just by a click on + sign. After expanding the sources folder you can see your main.cpp file where you have to write C++ code.

Open main.cpp and you can see the main.cpp file on right side of the pane



You need to do few setting before proceeding further.

Right click on your project name (mine is XLDemo) in Management window->Projects.

From the shortcut menu list select Build options...

Here you have to configure your Linker settings and Directories settings.

Before doing all these setting select the Debug option from left pane of window

Select Linker settings tab from the right side of pane

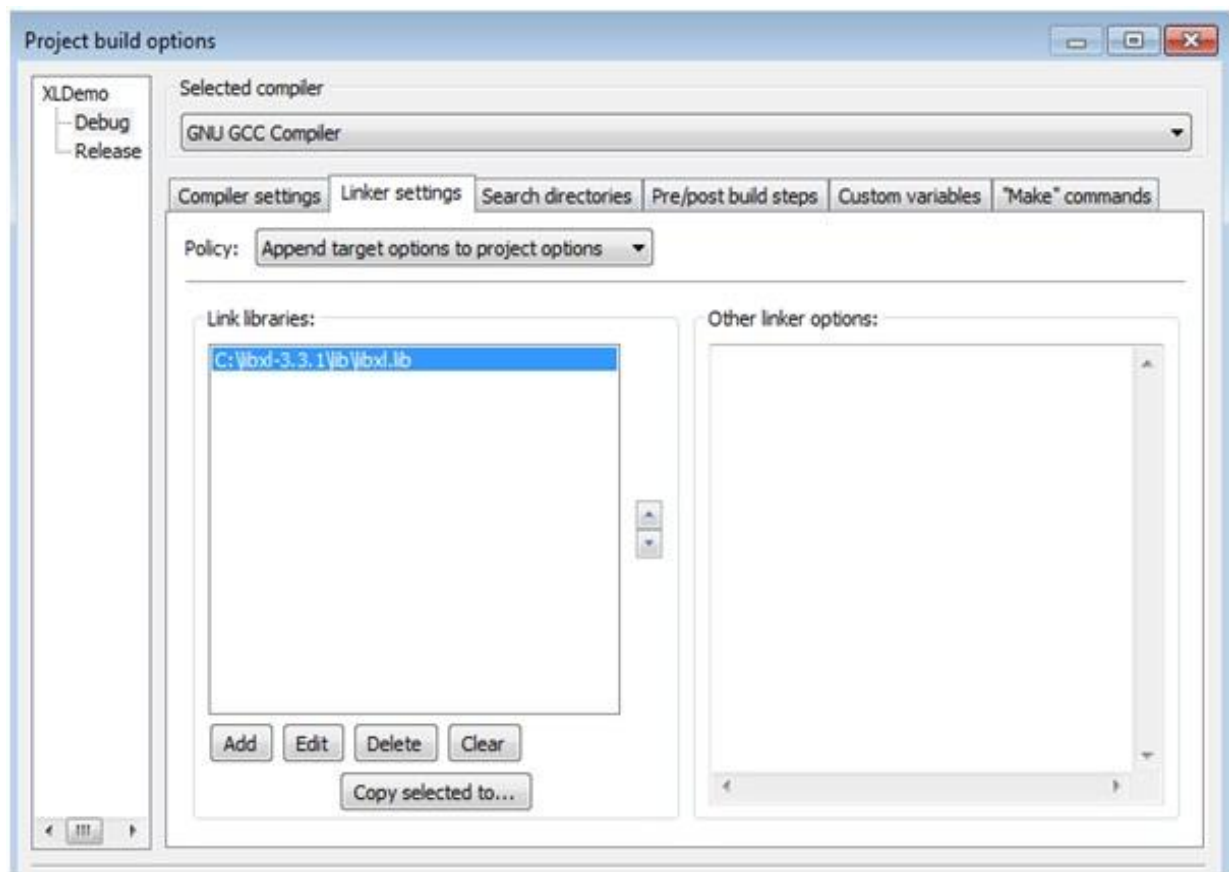
Click on Add button

Open the Open file window by clicking on ... button

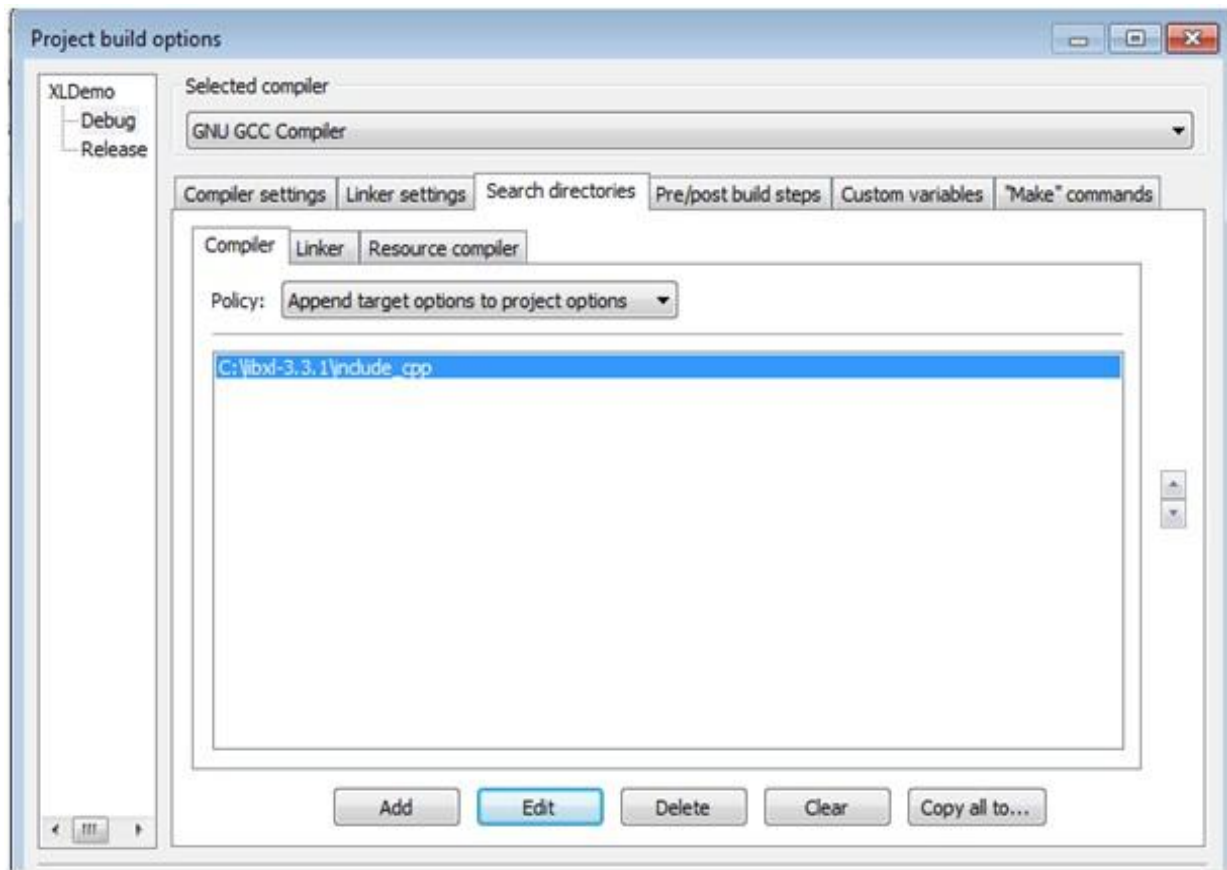
Locate you libxl-3.3.1 folder which you extracted from the downloaded libxl zip file. And select libxl.lib file, you will get this file in this path C:\libxl-3.3.1\lib.

You will get a message window asking a question "Keep this as a relative path ?"

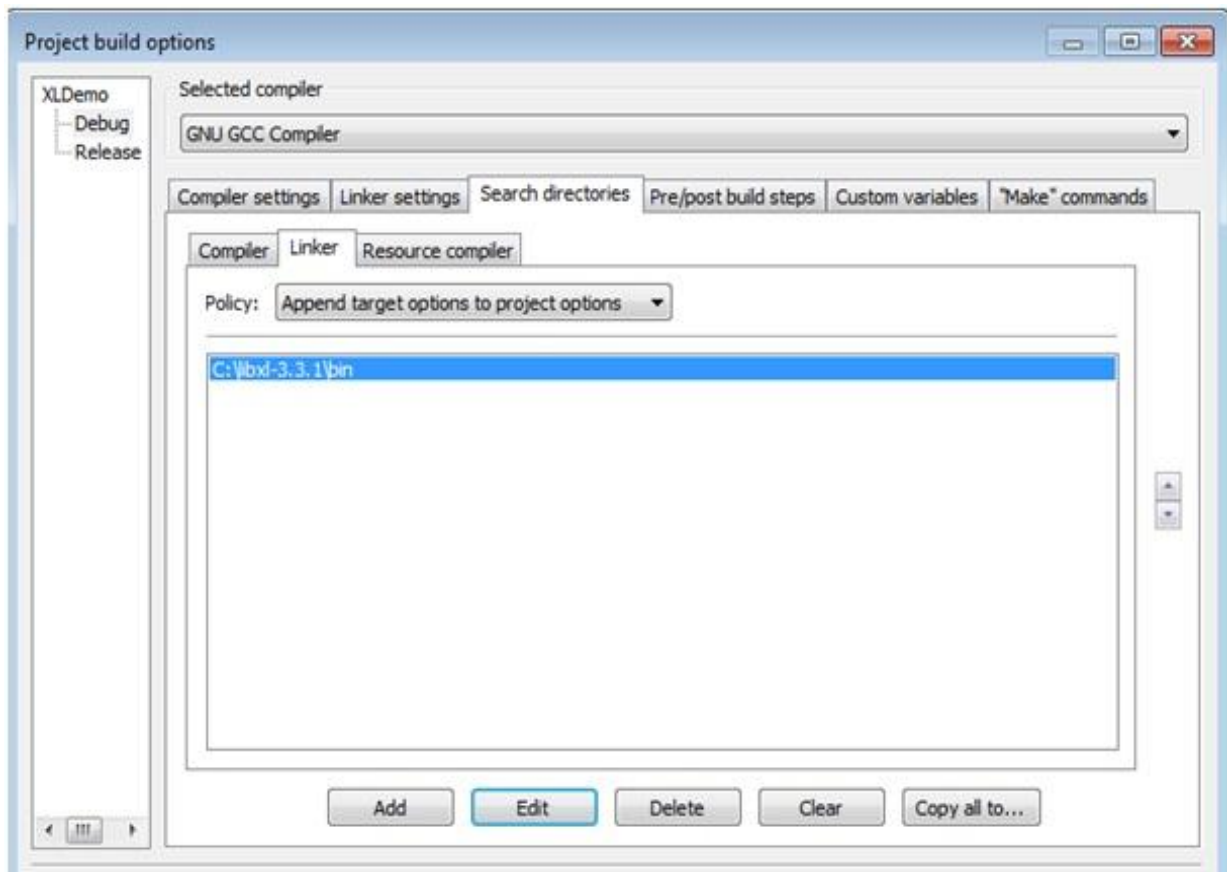
Select NO and then Yes



Now Go on the Search Directories tab->Compiler sub tab->Click on Add, Select the header file path for LibXL you can find it here C:\libxl-3.3.1\include_cpp. Don't keep relative path.



Move on Linker sub tab->select your libxl.dll file which is under C:\libxl-3.3.1\bin. Do keep relative path.



After completing all the above mentioned settings write the following C++ code –

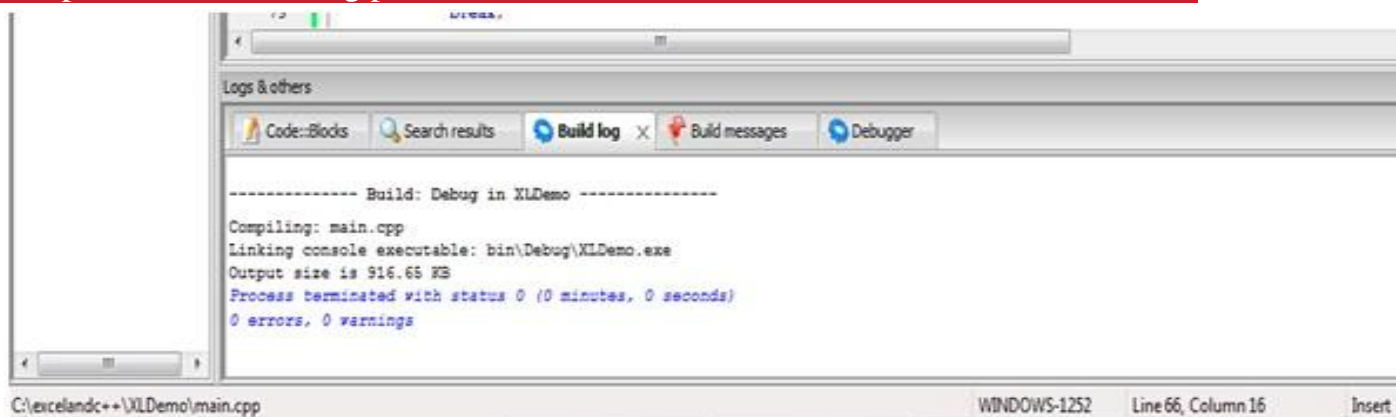
Now build your project, it can be done in various ways –

1 option: From menu bar Build->Build

2 option: ctrl + F9

3 option: From compiler toolbar click on yellow gear wheel icon

After following any one of the above mentioned method your project will start compilation and building process, and view the status at the bottom of the window.



If everything goes well you will see the status as shown in figure.

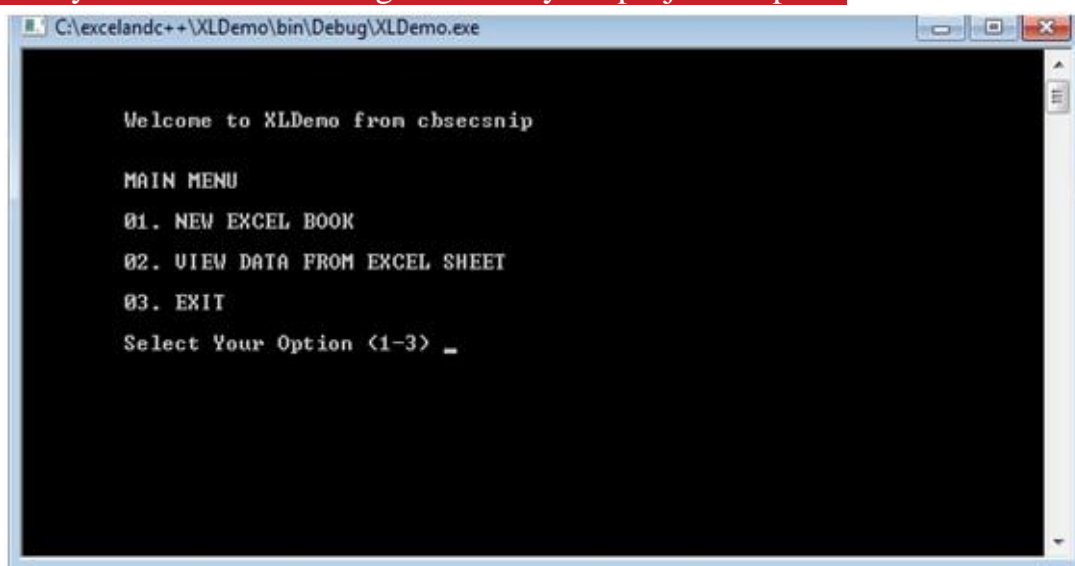
Now finally time to run your project –

1 option: From menu bar Build->Run

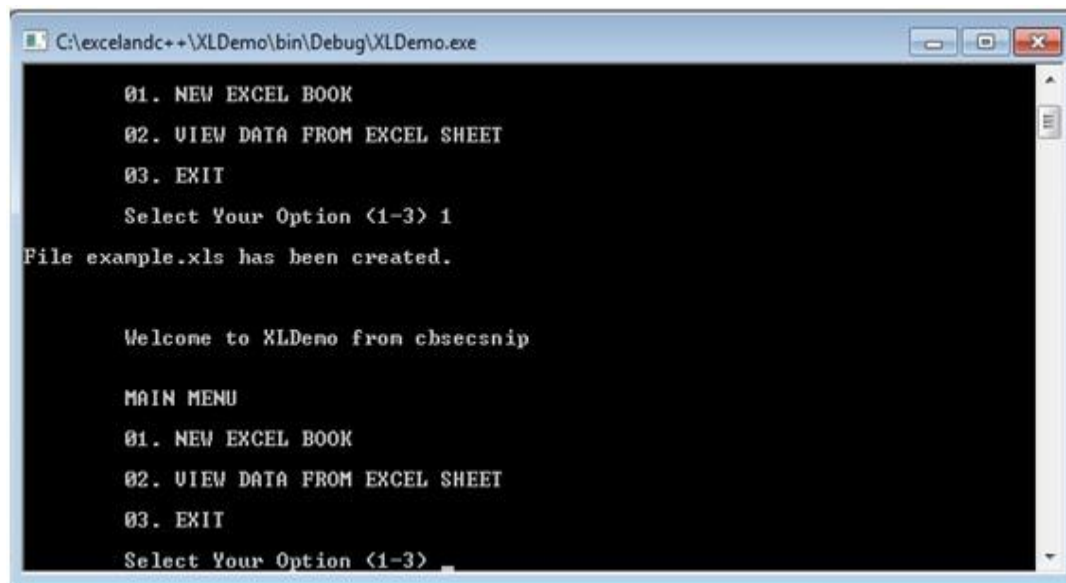
2 option: ctrl + F10

3 option: From compiler toolbar click on green play icon

And you will see following screen as your project output –



Select the option 1 for creating your MS Excel file –



```
C:\excelandc++\XLDemo\bin\Debug\XLDemo.exe

01. NEW EXCEL BOOK
02. VIEW DATA FROM EXCEL SHEET
03. EXIT
Select Your Option <1-3> 1
File example.xls has been created.

Welcome to XLDemo from chsecsnip

MAIN MENU
01. NEW EXCEL BOOK
02. VIEW DATA FROM EXCEL SHEET
03. EXIT
Select Your Option <1-3> _
```

You can see the message “File example.xls has been created.” And you can check this file is created in your project folder.

For view the saved data in example.xls file select option 2.

So at this point we are able to create and read data from MS Excel by using C++ program. Please note this point I have shown this demo in Debug mode it cannot be used for Release mode, for Release mode we have make some more modification as we are using .DLL file which are shared library file and will be required at runtime.

You can get all detail of the classes and functions from the documentation included in the zip file you downloaded.

I tried my best to make this tutorial simple and easy, if you have any query then please feel free to send us feedback from our [contact us](#)

Regards

Vishal Deb

Author

How to store and retrieve image from MySQL database using Java

We develop lots of project using Java and MySQL, few of them are –

- Student Management System
- Hospital Management System
- Hotel Management System
- Bank Management System
- Library Management System
- Retail Shop Management System

All above listed projects are very common projects, but most of us **IGNORE** one most important I received lots of mail regarding "HOW TO STORE AND RETRIVE IMAGE/PHOTOGRAPH I

In this tutorial I'll show you how to insert an image into MySQL database through Java and retrieve

Step 1: Open MySQL client

Step 2: Create a Database, in this tutorial I'm using student database.

Execute the following query

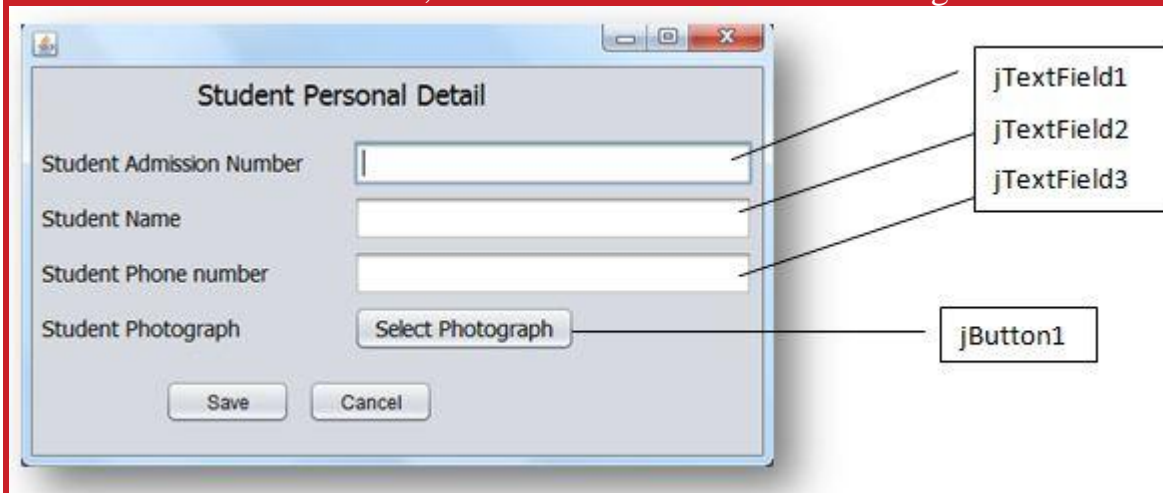
CREATE DATABASE STUDENT;

Step 3: Create Table, here in this tutorial personaldetail is the name of table

Execute the following query

```
CREATE TABLE IF NOT EXISTS personaldetail (  
st_id int(5) NOT NULL,  
st_name varchar(30) NOT NULL,  
st_phone varchar(12) NOT NULL,  
st_photo blob,  
PRIMARY KEY (`st_id`)  
)
```

Database and table is created, now let us start Netbeans and design an interface as per your need.



So now we are ready with our frontend interface. It is assumed that you all are well aware of Database part and moving to the concern topic.

Note>Database connectivity code is available in project and MySQL JDBC Driver is included in

Step 4: Import following packages on top of the source window.

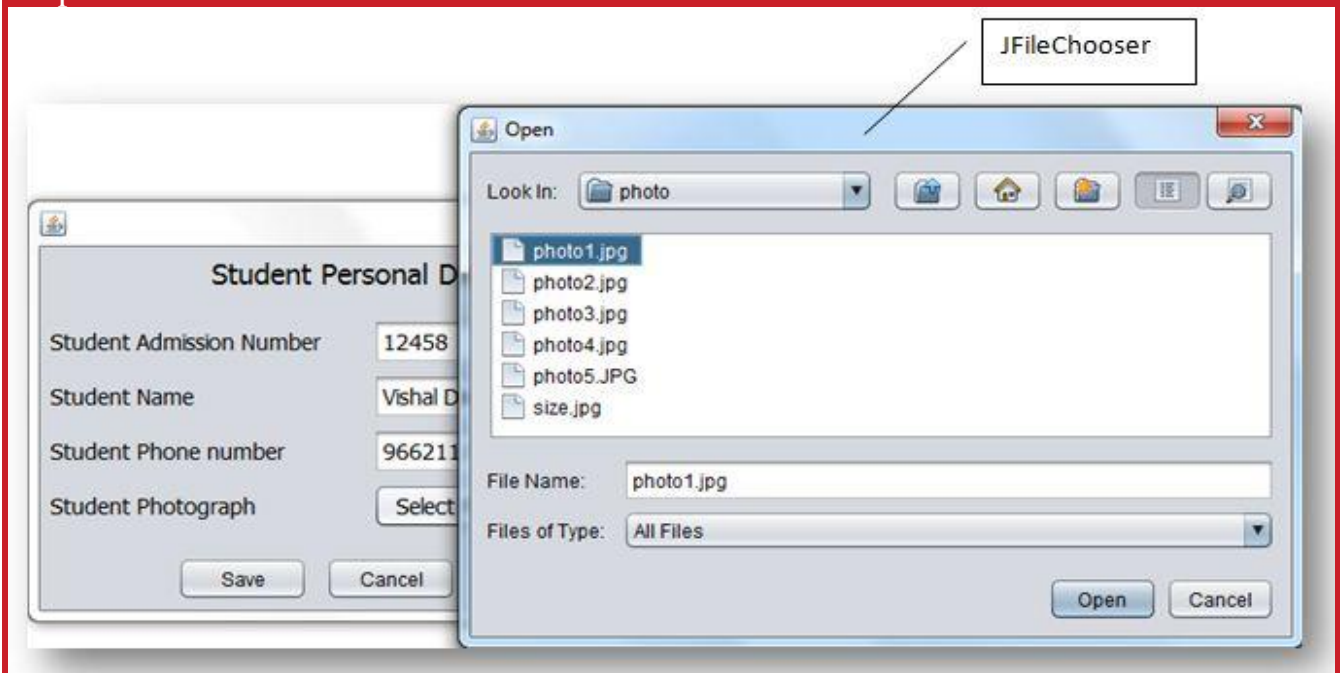
```
import java.io.*;  
import java.sql.*;  
import javax.swing.JFileChooser;
```

```
import javax.swing.JOptionPane;
```

Step 5: Double click on Select Photograph button (jButton1) and, you will be on Source window code for selecting photograph of students. Here is the code for selecting photograph –

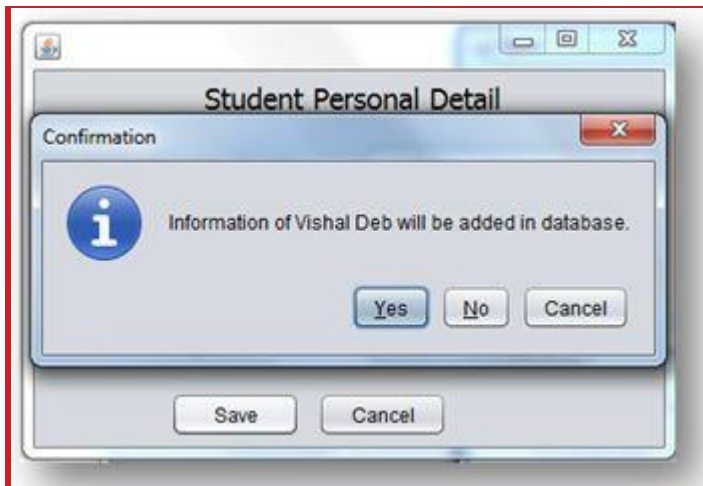
```
try
{
    JFileChooser picChooser = new JFileChooser(); //creates the JFileChooser object
    int returnVal = picChooser.showOpenDialog(null); //Opens the JFileChooser window
    File file = null;
    if(returnVal == JFileChooser.APPROVE_OPTION) //Confirmation for selected file
    {
        file = picChooser.getSelectedFile(); //Returns the selected file.
        String filename=file.getAbsolutePath(); //Returns the path of the file.
        pics=new File(filename); //File pics; (Define as global variable).
        fistream=new FileInputStream(pics); //FileInputStream fistream; (Define as global variable)
    }
}
catch(Exception ex)
{
    ex.printStackTrace();
}
```

Note> Both the RED colored variables pics and fistream will be used in Step 5 for converting image to byte array.
Output of the above code is -



Step 6: Select the image from with window and click on Open.

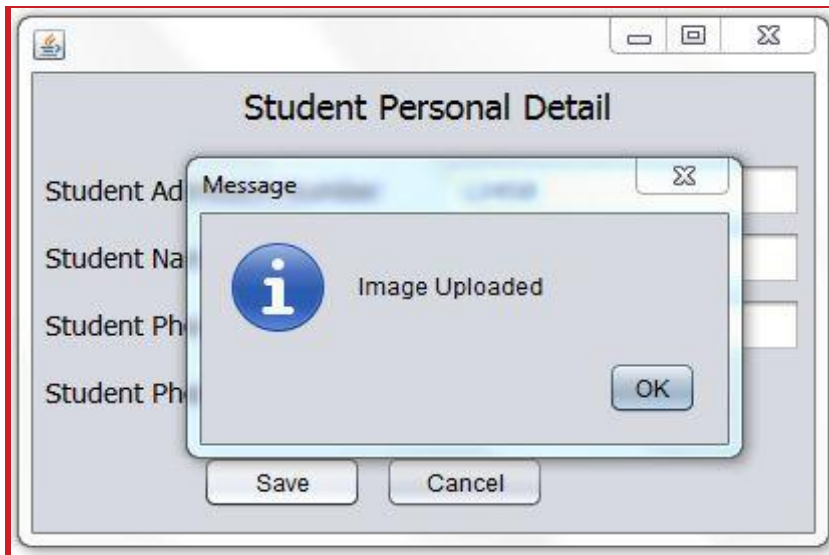
Step 7: Click on Save button and click on your choice Yes/No/Cancel



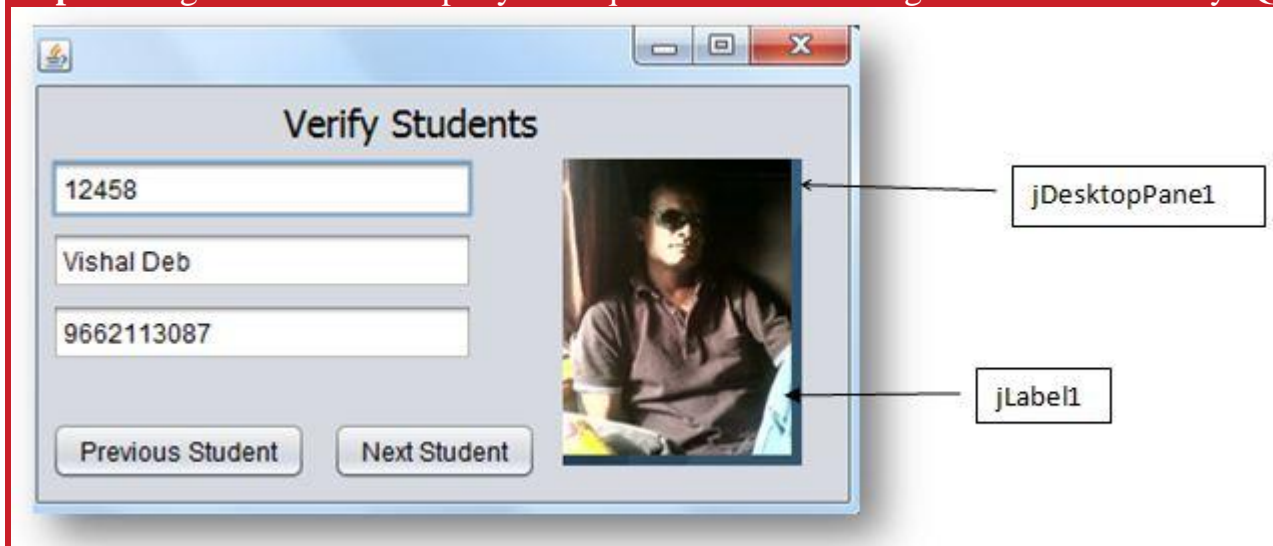
Save button code

```
try
{
    int sid=Integer.parseInt(jTextField1.getText());
    String  sname=jTextField2.getText();
    String  sph=jTextField3.getText();
    //Code for confirmation Dialog Box
    int code=JOptionPane.showConfirmDialog(this,"Information of " + sname + " will be added in data
    JOptionPane.YES_NO_CANCEL_OPTION,JOptionPane.INFORMATION_MESSAGE);
    if(code==JOptionPane.YES_OPTION)
    {
        //SQL preparestatement query for insert into
        psmnt = con.prepareStatement("insert into personaldetail(st_Id,st_name,st_phone,st_photo)"+
        //1 represent column number in table and sid represents the variable which will pass the val
        psmnt.setInt(1,sid);
        psmnt.setString(2,sname);
        psmnt.setString(3,sph);
        //Convert the image in Binary format
        psmnt.setBinaryStream(4, (InputStream)fistream, (int)(pics.length()));
        //Code for updating the table
        int success = psmnt.executeUpdate();
        if(success>0)
        {
            JOptionPane.showMessageDialog(this, "Image Uploaded");
        }
        else
        {
            JOptionPane.showMessageDialog(this, "Problem is uploading");
        }
    }
}
catch(Exception ex)
{
    ex.printStackTrace();
}
```

If image saved successfully in database you can see this Message otherwise Error will be shown.



Till this point we know “How to store image in MySQL database through Java”. Now we will see
Step8: Design an interface as per your requirement for viewing the records from MySQL database.



As you can see I used JLabel, but JLabel is placed on JDesktopPane because if you have images in your application, images to stretch or resize your JFrame automatically, your image will be bounded inside JDesktopPane.

Step 9: Import these 2 packages

```
import java.sql.*;
```

```
import javax.swing.ImageIcon;
```

Step 10: Now when you start verifying students your application should not be blank, at least it should show some data. The code given in below inside the constructor after *initComponents()*:

```
try
{
    Class.forName("com.mysql.jdbc.Driver");
    con = DriverManager.getConnection("jdbc:mysql://localhost:3306/student","root","");
    String query = "select * from personaldetail where st_id = 12458";
    psmnt = con.prepareStatement(query);

    rs=psmnt.executeQuery();
    rs.next();
    jTextField1.setText(Integer.toString(rs.getInt(1)));
    jTextField2.setText(rs.getString(2));
    jTextField3.setText(rs.getString(3));
    //Get the binary format of image from 4th column of the table.
```

```

byte[] imagedata=rs.getBytes(4);
//Convert the binary formatted data which is stored in imagedata. And store the image in format
format=new ImageIcon(imagedata); //ImageIcon format: (Define as global variable).
//Display the image on jLabel1.
jLabel1.setIcon(format);
}
catch(Exception ex)
{
    ex.printStackTrace();
}

```

Step 11: Code for Next Button

```

try
{
    if(rs1==null)
    {
        String query = "select * from personaldetail";
        psmnt = con.prepareStatement(query);
        rs1=psmnt.executeQuery();
    }
    if(rs1.previous())
    {
        jTextField1.setText(Integer.toString(rs1.getInt(1)));
        jTextField2.setText(rs1.getString(2));
        jTextField3.setText(rs1.getString(3));
        byte[] imagedata=rs1.getBytes(4);
        format=new ImageIcon(imagedata);
        jLabel1.setIcon(format);
    }
    else
    {
        JOptionPane.showMessageDialog(this, "This is first record of student");
    }
}
catch(Exception e)
{
    e.printStackTrace();
}

```

Below figure shows message if you try to go beyond last record.



Step 12: Code for Previous Button

```

try
{
    if(rs1==null)
    {
        String query = "select * from personaldetail";

```

```

        psmnt = con.prepareStatement(query);
        rs1=psmnt.executeQuery();
    }
    if(rs1.next())
    {
        jTextField1.setText(Integer.toString(rs1.getInt(1)));
        jTextField2.setText(rs1.getString(2));
        jTextField3.setText(rs1.getString(3));
        byte[] imagedata=rs1.getBytes(4);
        format=new ImageIcon(imagedata);
        jLabel1.setIcon(format);
    }
    else
    {
        JOptionPane.showMessageDialog(this, "This is last record of student");
    }
}
catch(Exception e)
{
    e.printStackTrace();
}

```

Below figure shows message if you try to go before first record.



Here we completed the tutorial on “HOW TO STORE AND RETRIVE IMAGE/PHOTOGRAPH”. I hope you know something really useful.

If you have any doubt or feedback please feel free to post your doubts or send feedback at our Facebook page.

Regards
Vishal Deb
Author

How to Connect MySQL Database with C++ [Print](#) [PDF](#)

Hi Friends,

Once again I came up with an uncommon tutorial for all C++ admirers. In this tutorial I will show "Project" step by step. Basically we use flat file for saving record, when we are doing this from C++. As I already mentioned the reason why we should not use Turbo C/C++ for these type of work, in ["program"](#), please read for it for detail other facts.

Before I proceed with my tutorial, you must be prepared with your development environment with to install following software (if required) –

- Download [Code::Block IDE bundled with MinGW compiler for C++ 10.05](#) (registered product of Code::Blocks)
- Download [MySQL 5.5.27 for Win 32](#) (registered product of MySQL)
- Download [SQLAPI++ Library](#) (registered product of <http://www.sqlapi.com/>)

So now you are ready to start with the tutorial.

Step 1: Create database in MySQL (here student is name of database)

Step 2: Create table (here personaldetail is name of table)

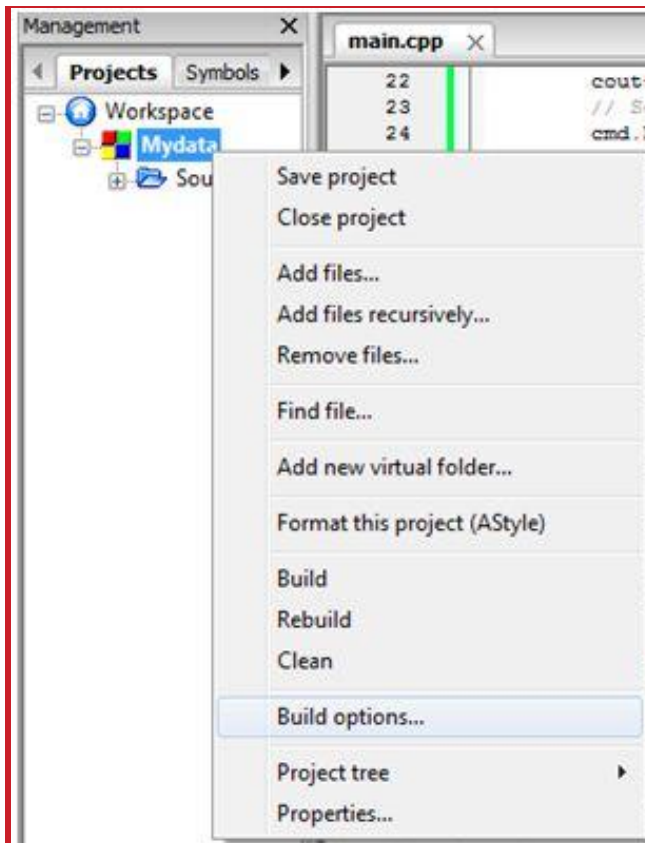
personaldetail

Column	Type	Null	Default	Comments
st_id	int(5)	No		Admission number of student
st_name	varchar(30)	No		Name of student
st_phone	varchar(12)	No		Phone number of student

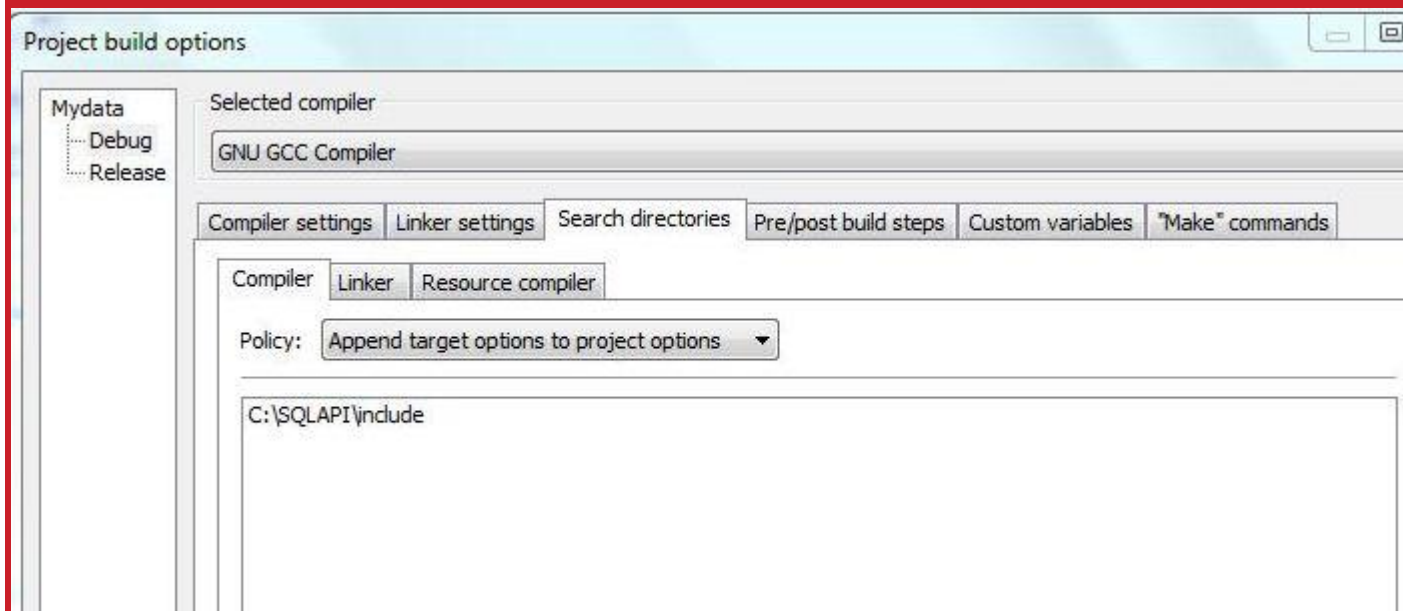
Step 3: Open Code::Blocks and start a new Console Application C++ project

Step 4: Setting up Header files in Code::Blocks IDE

- a. From Projects window select your Project and right click on it then select Build Option...



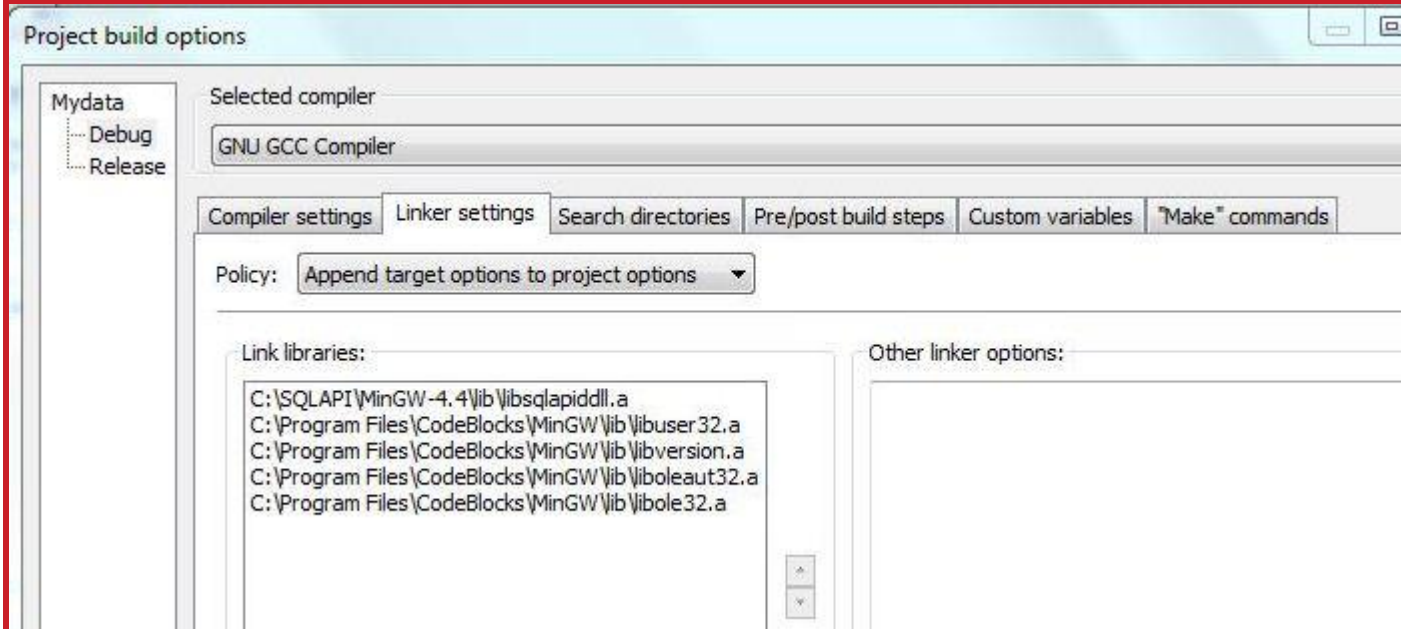
- b. From Project Build Option window select Debug which you will get under your project name
- c. Click on Search Directories Tab and set the path of Include folder under SQLAPI folder which is “C:\SQLAPI\include “. (Don't make path relative)



Now click on Linker setting and select following files in following sequence – (Don't make path

1. C:\SQLAPI\MinGW-4.4\lib\libsqlapiddll.a<\li>

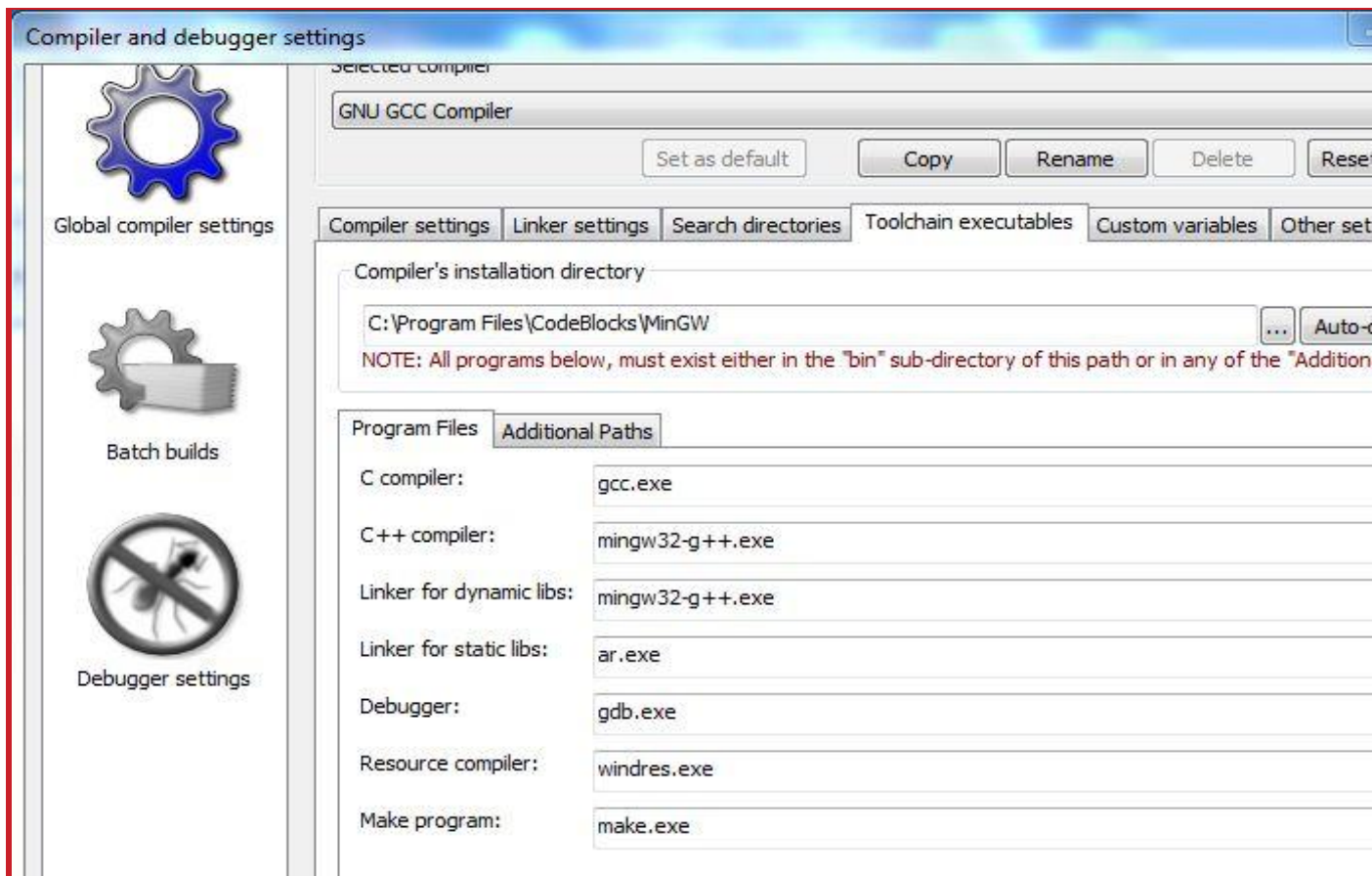
2. C:\Program Files\CodeBlocks\MinGW\lib\libuser32.a
3. C:\Program Files\CodeBlocks\MinGW\lib\libversion.a
4. C:\Program Files\CodeBlocks\MinGW\lib\liboleaut32.a
5. C:\Program Files\CodeBlocks\MinGW\lib\libole32.a



Step 5: Finally click OK when done with these settings.

Step 6: Now go to Compiler and debugger... option from Setting Menu in main menu bar

Check your C++ compiler, Linker for dynamic libs, Debugger, Resource compiler and Make pro...



Step 7: Copy these two .dll files “C:\SQLAPI\MinGW-4.4\bin\libsqlapid.dll” and “C:\Program Files\CodeBlocks\MinGW\bin\libstdc++-6.dll” to your application debug folder. My application folder is C:\msqladb\Mydata\bin\Debug

Finally here you completed all the settings we require to compile, debug, link, and dynamically link.

Step 8: Write the code in your main.cpp file as given below code is self explanatory –

```
#include <iostream>
#include <conio.h>
#include <SQLAPI.h> // main SQLAPI++ header
using namespace std;
int main(int argc, char* argv[])
{
    SAConnection con; // create connection object
    SACommand cmd(&con,"Select st_id, st_name, st_phone from personaldetail"); // create command object
    try
    {
        // connect to MySQL database
        con.Connect(
            "hotel", // database name change as per your database name
            "root", // user name change per your setting
            "", // password I don't have any password for my database
            SA_MySQL_Client);
        cout<<"We are connected!\n";
        // Select from our test table
        cmd.Execute();
        // fetch results row by row and print results
        int i=0;
        while(cmd.FetchNext())
        {
            i++;
        }
    }
}
```



```

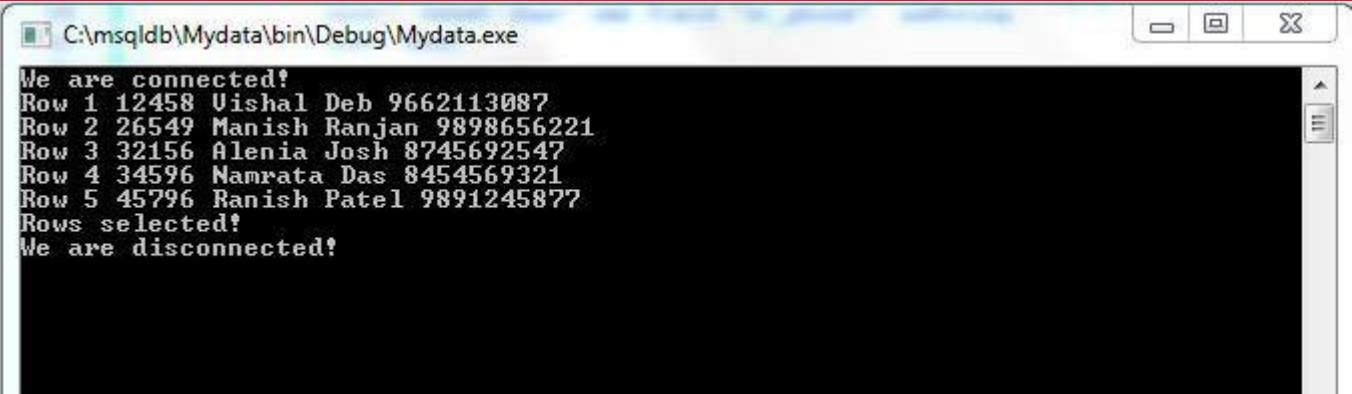
        cout<<"Row  "<<i<<" ";
        cout<<cmd.Field("st_id").asLong()<<" ";
        cout<<(const char*)cmd.Field("st_name").asString()<<" ";
        cout<<(const char*)cmd.Field("st_phone").asString()<<" ";
        cout<<endl;
    }
    // commit changes on success
    con.Commit();
    cout<<"Rows  selected!\n";

    // Disconnect is optional
    // autodisconnect will occur in destructor if needed
    con.Disconnect();
    cout<<"We are  disconnected!\n";
    getch();
}
catch(SAException &x)
{
    // SAConnection::Rollback()
    // can also throw an exception
    // (if a network error for example),
    // we will be ready
    try
    {
        // on error rollback changes
        con.Rollback();
    }
    catch(SAException &)
    {
    }

    // print error message
    cout<<(const char*)x.ErrText();
}
return 0;
}

```

Now build and run the project, if everything is well then you will see the records of your table, like



```

C:\msql\Mydata\bin\Debug\Mydata.exe
We are connected!
Row 1 12458 Uishal Deb 9662113087
Row 2 26549 Manish Ranjan 9898656221
Row 3 32156 Alenia Josh 8745692547
Row 4 34596 Namrata Das 8454569321
Row 5 45796 Ranish Patel 9891245877
Rows selected!
We are disconnected!

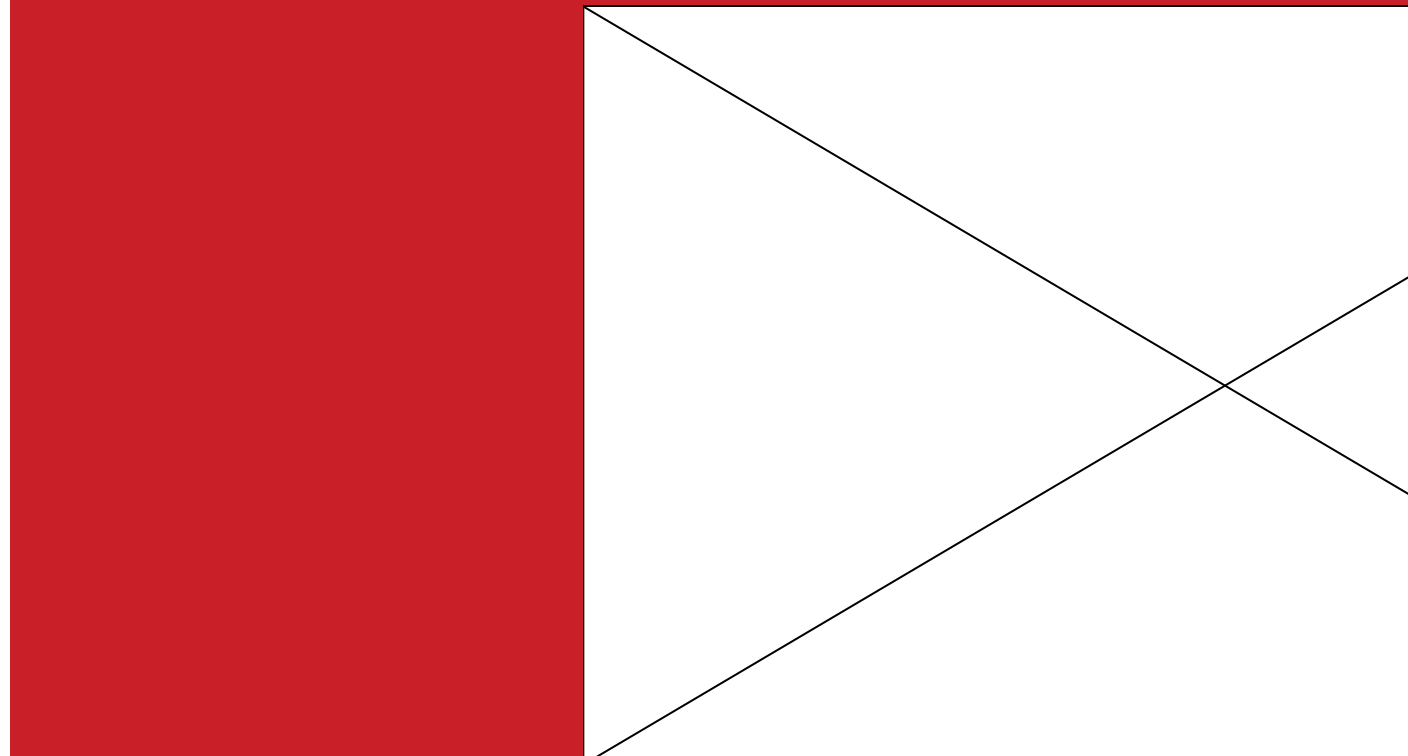
```

We can do lot of more operations but I expect this is enough to show the way How to use MySQL documentation given here<http://www.sqlapi.com/>. You can register in our Forum.

Regards
Vishal Deb
Author

How to create menu in C++

We all use menu in our C++ project, generally we use numbers for selecting the options by switch case. In this video, you can see how you can create a menu in C++ and use it by using up arrow key and down arrow key. VIDEO CAN BE BEST AND COMPLETE VIEWED IN GOOGLE CHROME/ FIREFOX



```

/*****
/*****GUI C++ Menu*****/
/*****Use Arrow key and Enter Key to use it*****/
/*****/

#include<iostream.h>
#include<conio.h>
#include <dos.h>
#include<graphics.h>

//Menu Global Item
#define pixTOrc(x) (8*(x-1)) //convert pixel into row and col format
#define INC 5 //Increment Distance Between Menu Items
#define ROW 15 //Row Value for Menu Item
#define COL 8 //Column Value for Menu Item
#define MAXMENU 5 //Total menu items

// To display the Inventory Main menu options
typedef char option[20];

option MMenu[] = {
    "View Account",
    "Transactions",
    "Add New Item",
    "Delete Item",
    "Exit"
};
```

```

        "New Account",
        "Edit Account",
        "Quit"
    };

// Function to displays all the menu prompt messages from the pointer array of option a
void normalvideo(int x,int y,char *str)
{
    x=pixTOrc(x);
    y=pixTOrc(y);
    outtextxy(x,y,str);
}

// Function to move the cursor on the menu prompt with a reverse video color
void selectedMenu(int x,int y,char *str)
{
    x=pixTOrc(x);
    y=pixTOrc(y);
    setcolor(5); //Selected Item Color
    sound(400);
    delay(100);
    nosound();
    outtextxy(x,y,str);
    setcolor(WHITE); //Unselected Item Color
    sound(500);
    delay(100);
    nosound();
}

//Keep Track of which arrow key is pressed
char menu()
{
    settextstyle(TRIPLEX_FONT,HORIZ_DIR,2);
    setcolor(WHITE); //Initial Menu Item Color
    int i,done;
    for(i = 1; i < MAXMENU; i++)
        normalvideo(COL, (i*INC)+ROW, MMenu[i]);
    selectedMenu(COL,ROW, MMenu[0]);
    i = done = 0;
    do
    {
        /**Status Bar Code**/
        setfillstyle(SOLID_FILL,BLUE);
        settextstyle(SMALL_FONT,HORIZ_DIR,5);
        bar(pixTOrc(2),pixTOrc(52.5),pixTOrc(75),pixTOrc(55));
        setcolor(LIGHTCYAN);
        switch(i)
        {
            case 0 : outtextxy(pixTOrc(5),pixTOrc(52.75),"View Account --> View Detail of a
                        break;
            case 1 : outtextxy(pixTOrc(5),pixTOrc(52.75),"Transactions --> Do transaction D
                        break;

            case 2 : outtextxy(pixTOrc(5),pixTOrc(52.75),"New Account --> Create a new accoun
                        break;
            case 3 : outtextxy(pixTOrc(5),pixTOrc(52.75),"Edit Account --> Edit an existing
                        break;
            case 4 : outtextxy(pixTOrc(5),pixTOrc(52.75),"Close the Program");
                        break;
        }
        /**status Bar ends**/
        setcolor(WHITE);
        settextstyle(TRIPLEX_FONT,HORIZ_DIR,2);
    }

```

```

int key = getch();
switch (key)
{
    case 00: key = getch();
        switch (key)
        {
            case 72: normalvideo(COL, (i*INC)+ROW, MMenu[i]);
                i--;
                if (i == -1)
                    i = MAXITEM-1;
                selectedMenu(COL, (i*INC)+ROW, MMenu[i]);
                break;
            case 80: normalvideo(COL, (i*INC)+ROW, MMenu[i]);
                i++;
                if (i == MAXITEM)
                    i = 0;
                selectedMenu(COL, (i*INC)+ROW, MMenu[i]);
                break;
        }
        break;
    case 13: done = 1;
}
}
while (!done);
return(i+49);
}
//This part you can use for main functionality of the menu
void mainArea()
{
    setcolor(BLUE);
    outtextxy(pixTOrc(30),pixTOrc(20),"http://cbsecsnip.in/");
    setcolor(YELLOW);
}
/* Code for displaying the main menu*/
void call_menu()
{
    char choice;
    do
    {
        choice = menu();
        switch (choice)
        {
            case '1': setcolor(BLUE);
                outtextxy(pixTOrc(40),pixTOrc(15),"View Account");
                mainArea();
                getch();
                setfillstyle(SOLID_FILL,LIGHTGRAY);
                bar(pixTOrc(28),pixTOrc(14),pixTOrc(75),pixTOrc(50));
                mainArea();
                break;
            case '2':
                setcolor(BLUE);
                outtextxy(pixTOrc(40),pixTOrc(15),"Transactions");
                mainArea();
                getch();
                setfillstyle(SOLID_FILL,LIGHTGRAY);
                bar(pixTOrc(28),pixTOrc(14),pixTOrc(75),pixTOrc(50));
                mainArea();
                break;
            case '3':
                setcolor(BLUE);

```

```

        outtextxy(pixTOrC(40),pixTOrC(15),"New Account");
        mainArea();
        getch();
        setfillstyle(SOLID_FILL,LIGHTGRAY);
        bar(pixTOrC(28),pixTOrC(14),pixTOrC(75),pixTOrC(50));
        mainArea();
        break;
    case '4':
        setcolor(BLUE);
        outtextxy(pixTOrC(40),pixTOrC(15),"Edit Account");
        mainArea();
        getch();
        setfillstyle(SOLID_FILL,LIGHTGRAY);
        bar(pixTOrC(28),pixTOrC(14),pixTOrC(75),pixTOrC(50));
        mainArea();
        break;
    case '5':        //Close the project
        setcolor(BLUE);
        outtextxy(pixTOrC(40),pixTOrC(15),"Quit");
        mainArea();
        delay(1000);
        setfillstyle(SOLID_FILL,LIGHTGRAY);
        bar(pixTOrC(28),pixTOrC(14),pixTOrC(75),pixTOrC(50));
        mainArea();
        goto exit;
    }
} while (choice != MAXITEM);
exit:
}
void main()
{
    int i,j;
    int gd=DETECT,gm=0;
    initgraph(&gd,&gm,"C:\\\\TC\\\\BGI");
    setcolor(BLACK);
    rectangle(0,0,640,480);
    setfillstyle(SOLID_FILL,LIGHTGRAY);
    bar(2,1,637,478);
    setfillstyle(SOLID_FILL,BLACK);
    bar(1,3,637,50);
    settextstyle(BOLD_FONT,HORIZ_DIR,2);
    setcolor(YELLOW);
    outtextxy(pixTOrC(12),pixTOrC(1)," BANKING SYSTEM PROJECT ");
    setfillstyle(CLOSE_DOT_FILL,DARKGRAY);
    bar(pixTOrC(7),pixTOrC(14),pixTOrC(25),pixTOrC(50));
    call_menu();
    closegraph();
}

```

