OTHER PROJECT

JFRAME + MYSQL

My small project**: BEM // BEST EMPLOYEE OF THE MONTH**

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Class**: L2CC**

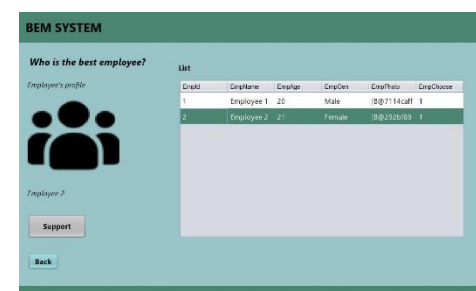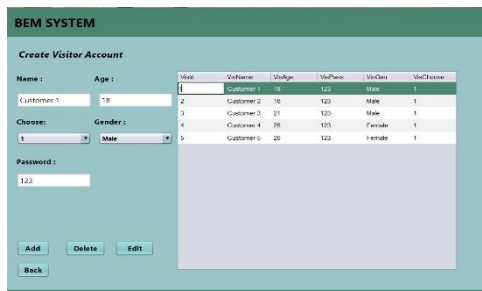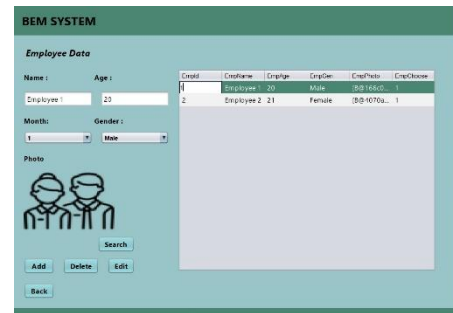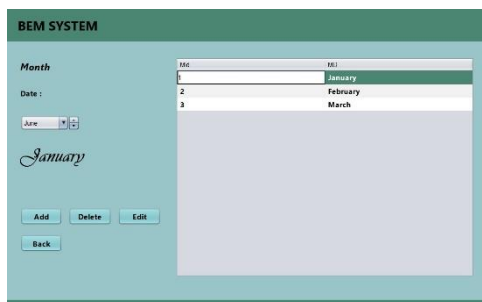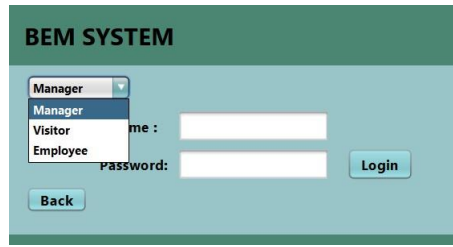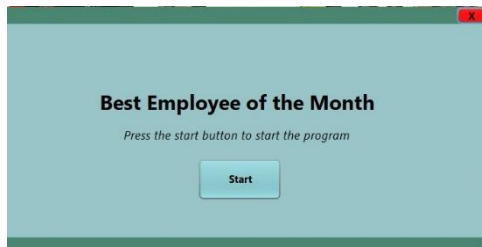Lecturer: **Jude Joseph Lamug Martinez**

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JAVA + MySQL project

GUI Frame by using JFrame - NetBeans
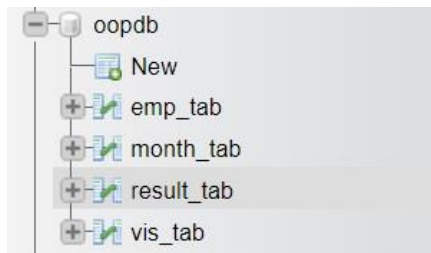
SQL DATA

These are the SQL tables that I created:

oopdb
- New
- emp_tab
- month_tab
- result_tab
- vis_tab

Table	Action						Rows	Type	Collation	Size	Overhead
☐ emp_tab	⭐	🔲 Browse	🔧 Structure	🔍 Search	➕ Insert	🗑 Empty	⊘ Drop	2	InnoDB	utf8mb4_general_ci	16.0 KiB	-
☐ month_tab	⭐	🔲 Browse	🔧 Structure	🔍 Search	➕ Insert	🗑 Empty	⊘ Drop	3	InnoDB	utf8mb4_general_ci	16.0 KiB	-
☐ result_tab	⭐	🔲 Browse	🔧 Structure	🔍 Search	➕ Insert	🗑 Empty	⊘ Drop	5	InnoDB	utf8mb4_general_ci	16.0 KiB	-
☐ vis_tab	⭐	🔲 Browse	🔧 Structure	🔍 Search	➕ Insert	🗑 Empty	⊘ Drop	5	InnoDB	utf8mb4_general_ci	16.0 KiB	-
4 tables	Sum						15	InnoDB	utf8mb4_general_ci	64.0 KiB	0 B

				EmpId	EmpName	EmpAge	EmpGen	EmpPhoto	EmpChoose
☐	✏ Edit	📋 Copy	⊘ Delete	1	Employee 1	20	Male	[BLOB - 2.8 KiB]	1
☐	✏ Edit	📋 Copy	⊘ Delete	2	Employee 2	21	Female	[BLOB - 1.5 KiB]	1

				MId	MD
☐	✏ Edit	📋 Copy	⊘ Delete	1	January
☐	✏ Edit	📋 Copy	⊘ Delete	2	February
☐	✏ Edit	📋 Copy	⊘ Delete	3	March

				VisId	VisName	VisAge	VisPass	VisGen	VisChoose
☐	✏ Edit	📋 Copy	⊘ Delete	1	Customer 1	18	123	Male	1
☐	✏ Edit	📋 Copy	⊘ Delete	2	Customer 2	16	123	Male	1
☐	✏ Edit	📋 Copy	⊘ Delete	3	Customer 3	21	123	Male	1
☐	✏ Edit	📋 Copy	⊘ Delete	4	Customer 4	25	123	Female	1
☐	✏ Edit	📋 Copy	⊘ Delete	5	Customer 5	26	123	Female	1

				RId	VisId	MId	EmpId
☐	✏ Edit	📋 Co	Click the drop-down arrow to toggle column's visibility.		1	1
☐	✏ Edit	📋 Copy	⊘ Delete	2	3	1	1
☐	✏ Edit	📋 Copy	⊘ Delete	4	5	1	2
☐	✏ Edit	📋 Copy	⊘ Delete	5	1	1	2
☐	✏ Edit	📋 Copy	⊘ Delete	6	4	1	2

CODE EXPLANATION: (the explanation is on the pictures)

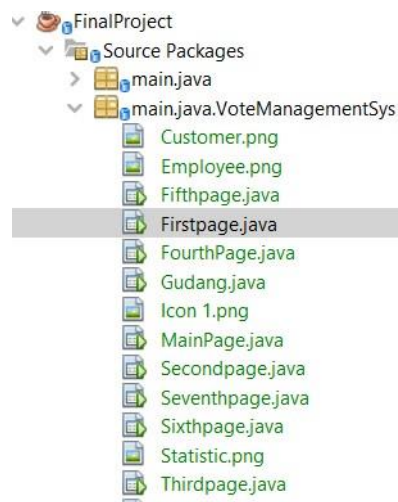## Libraries needed to be downloaded:

Jcalendar.jar = for adding month

Dbutils. Jar = helping manipulating table

Rs2xml.jar

Mysql-connector-java.jar = connecting to sql database

I use XAMPP.

The classes:

Firstpage class

```java
1    // The package that contains my final project
2    package main.java.VoteManagementSys;
3    public class Firstpage extends javax.swing.JFrame {
4
5        //The first page only use JFrame, and the code is only in the Start Button
6        //By using NetBeans, I only need to design the JFrame and the function are
7        //automatically created in the Source Code.
8        public Firstpage() {
9            initComponents(); //initializing the component of firstpage
10
11        }

         private void StartMouseClicked(java.awt.event.MouseEvent evt) {
162          new Secondpage().setVisible(true);//this will show the second page
163          this.dispose();//disposing this page(first page)
164
165      }
166
         private void StartActionPerformed(java.awt.event.ActionEvent evt) {...3 line
170
         private void ExitBMouseClicked(java.awt.event.MouseEvent evt) {
172          //to exit the program; doesn't redirect to other page;
173          //only diposing this page.
174          this.dispose();
175      }
         /* Create and display the form */
         java.awt.EventQueue.invokeLater(new Runnable() {
             public void run() {
                 //running the first page inside main funct
                 new Firstpage().setVisible(true);
```

Secondpage class

```java
1    package main.java.VoteManagementSys;
2
3
4    //IMPORT PACKAGES
5    import javax.swing.JOptionPane;//for showing message
6    //for connection purposes
7    import java.sql.Connection;
8    import java.sql.PreparedStatement;
9    import java.sql.ResultSet;
10   import java.sql.Statement;
11   //to connect with the database
12   import java.sql.DriverManager;
16   public class Secondpage extends javax.swing.JFrame {
17       // We need to connect the database in mysql library
18       /* First thing I did is connecting the database to my compiler by going to the
19       "Services" in NetBeans, then add new database.
20       From that, I got the link :
21       jdbc:mysql://localhost:3306/oopdb?zeroDateTimeBehavior=CONVERT_TO_NULL [root on Default schema]
22       Then, I deleted until it becomes : jdbc:mysql://localhost:3306/oopdb.
23       I learned this from Youtube Tutorials.
24       */
25
26       Connection Con = null;
27       PreparedStatement pst = null;
28       ResultSet Rs = null;
29       Statement St = null;
30
31       //I assigned some string for connection purpose.
32       String url = "jdbc:mysql://localhost:3306/oopdb";
33       String user = "root";
34       String pass = "";
35
36       public Secondpage() {
37           initComponents();
38       }
39
221      private void ButtonLMouseClicked(java.awt.event.MouseEvent evt) {
222          /*ButtonL is actually Login Button
223          If operator; ChooseL is the part where you can choose between Manager, Employee
224          or Visitor.
225          */
226
227          //Index = -1; is if none of the 3 are selected
228          if(ChooseL.getSelectedIndex()==-1){
229              JOptionPane.showMessageDialog(this,"Select between Manager, Employee, or Visitor!");
230          }
231          //Index = 0 is for Manager, 1 for Visitor, and 2 for Employee.
232          else if (ChooseL.getSelectedIndex()==0){
233              //if one of them is empty ; shows "Information incomplete"
234              if(NameL.getText().isEmpty()||PassL.getText().isEmpty()){
235                  JOptionPane.showMessageDialog(this,"Information incomplete!");
236              }
237              //Setting the Name of manager account and Password.
238              else if(NameL.getText().equals("Manager")&&PassL.getText().equals("Password")){
239                  //If the condition is fulfilled, it will redirect you to the MainPage
240                  new MainPage().setVisible(true);
241                  this.dispose();
242              }
243              /*If the Information is wrong, it gives incorrect input message
244              whilst emptying the name and pass.*/
245              else{
246                  JOptionPane.showMessageDialog(this,"Incorrect input!");
247                  NameL.setText("");
248                  PassL.setText("");
                 }
```

```java
        }else if(ChooseL.getSelectedIndex()==1){
            /*This is for the visitor, the visitor must be registered by the Manager first
            Manager will be able to set up the username and password of the visitor.
            */
            String Q = " Select * from vis_tab where VisName='"+
            NameL.getText()+"'and VisPass= '"+PassL.getText() +"'";
            /* String Q = " Select * from ctab where CName='"+
            NameL.getText()+"'and CPass= '"+PassL.getText() +"'";
            */
            try{
                // To connect with the database
                // By using the assigned variables and statement.
                Con = DriverManager.getConnection(url,user,pass);
                St = Con.createStatement();
                Rs = St.executeQuery(Q);
                if(Rs.next()){
                    new Sixthpage(Rs.getInt(1)).setVisible(true);
                    this.dispose();
                }else{
                    JOptionPane.showMessageDialog(this,"Incorrect password or username!");
                }

            }
            catch(Exception e){
                JOptionPane.showMessageDialog(this, e);
            }
        }else if(ChooseL.getSelectedIndex()==2){
            //this one is for employee; the employee username and password is already assigned
            if(NameL.getText().isEmpty()||PassL.getText().isEmpty()){
                JOptionPane.showMessageDialog(this,"Information incomplete!");

            }else if(NameL.getText().equals("Employee")&&PassL.getText().equals("Password")){
                new Seventhpage().setVisible(true);//The employee username and pass is also set in here
                //if the condition is correct it will redirect you to the seventhpage
                this.dispose();
            }
            else{
                JOptionPane.showMessageDialog(this,"Incorrect input!");
                NameL.setText("");//inccorect input reset the text and pass to null
                PassL.setText("");
            }

        }
    }

    private void BackCMouseClicked(java.awt.event.MouseEvent evt) {
        //The back button will redirect you to the first page
        new Firstpage().setVisible(true);
        this.dispose();
    }

    public static void main(String args[]) {

        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new Secondpage().setVisible(true);
            }
        });
    }
```

Thirdpage class

```java
1
2    package main.java.VoteManagementSys;
3
4    //Connection purposes
5    import java.sql.PreparedStatement;
6    import java.sql.Connection;
7    import java.sql.ResultSet;
8    import java.sql.Statement;
9    import java.sql.DriverManager;
10   //For showing message
11   import javax.swing.JOptionPane;
12   //To be able to use DbUtils
13   //To use (net) u should include Rs2Xml file first.
14   //This is then use to manipulate table
15   //"www.youtube.com/watch?v=4nvTwvfWt7I"
16   import net.proteanit.sql.DbUtils;
17   import javax.swing.table.DefaultTableModel;
18
19   public class Thirdpage extends javax.swing.JFrame {
20       //I copied from the page before
21       Connection Con = null;
22       PreparedStatement pst = null;
23       ResultSet Rs = null;
24       Statement St = null;
25
26       String url = "jdbc:mysql://localhost:3306/oopdb";
27       String user = "root";
28       String pass = "";
29
```

```java
270          int MId ;
271          Statement St1 = null;
272          ResultSet Rs1 = null;
273
274          //Function that allows Id to automatically increase
275          private void CalculateMonthID()
276          {
277            try{
278               St1 = Con.createStatement();
279               Rs1 = St1.executeQuery("Select MAX(MId) from month_tab");
280               Rs1.next();
281               MId = Rs1.getInt(1)+1;
282
283            }catch(Exception Ex){
284            }
285          }
286          //Function to display the month
287          private void MonthDisplay()
288          {
289              try{
290                 //connecting to the month_tab
291                 //Displaying the month_tab in the Monthtable on JFrame
292                 Con=DriverManager.getConnection(url,user,pass);
293                 St = Con.createStatement();
294                 Rs = St.executeQuery("Select * from month_tab ");
295                 Monthtable.setModel(DbUtils.resultSetToTableModel(Rs));
296              }
297              catch(Exception e){
298                 System.out.println("Error: " + e.getMessage());
299              }
300          }
301          String m = "";
```

```java
301        String m = "";
302   ┌    private void MonthString(){
303            //Function that is used to getting the Month String from its interger value;
304            String Month = String.valueOf(VARMONTH.getMonth()+1);
          if ("1".equals(Month)){m = "January";}else if("2".equals(Month)){m ="February";}
306                else if("3".equals(Month)){m ="March";}else if("4".equals(Month)){m ="April";}
307                else if("5".equals(Month)){m ="May";}else if("6".equals(Month)){m ="June";}
308                else if("7".equals(Month)){m ="July";}else if("8".equals(Month)){m ="August";}
309                else if("9".equals(Month)){m ="September";}else if("10".equals(Month)){m ="October";}
310                else if("11".equals(Month)){m ="November";}else if("12".equals(Month)){m ="December";}
311
312   └    }

          private void AddMonthMouseClicked(java.awt.event.MouseEvent evt) {
314            // Code adding election
315            if(MonthLabel.getText().isEmpty()){
316                JOptionPane.showMessageDialog(this,"Error");
317            }else{
318                try{
319                    //For the Month
320                    //I add 1, because I encountered a problem when I entered a month
321                    //it shows the month number -1.
                      String Month = String.valueOf(VARMONTH.getMonth()+1);
323                    MonthString();
324                    //For ID purpose.
325                    CalculateMonthID();
326                    //Connecting the data from mysql to java
327
328                    Con=DriverManager.getConnection(url,user,pass);
329                    //Inserting data to mysql
330                    //There are 2 data in the my sql so the ? is 2
331                    PreparedStatement Add = Con.prepareStatement("Insert into month_tab values (?,?)");
332
333                    Add.setInt(1,MId);
334                    //Add.setString(2,ElectionNameTb.getText());
335                    //Add.setString(3, EDate);
336                    Add.setString(2,m);
                      int row = Add.executeUpdate();
338                    JOptionPane.showMessageDialog(this, "Month Successfuly added");
339                    //closing the connection
340                    Con.close();
341                    MonthDisplay();
342
                  }catch (Exception e){
344                    JOptionPane.showMessageDialog(this, e);
345
346                }
347            }
348        }

350        int n = -1;
          private void MonthtableMouseClicked(java.awt.event.MouseEvent evt) {
352            //when you click the event of the election, the name will be filled with
353            //the event name that you clicked.
354            DefaultTableModel model = (DefaultTableModel)Monthtable.getModel();
355            int Index = Monthtable.getSelectedRow();
356            //index 0 is the MonthId
357            n = Integer.valueOf(model.getValueAt(Index,0).toString());
358            MonthLabel.setText(model.getValueAt(Index, 1).toString());
359
360        }
361
```

```java
    private void DeleteMonthMouseClicked(java.awt.event.MouseEvent evt) {
        if(n == -1){
            //If none of the option is clicked
            JOptionPane.showMessageDialog(this, " Which one you want to delete? ");

        }else{
            try{
                //connection
                Con=DriverManager.getConnection(url,user,pass);
                String Q = " Delete from month_tab where MId = "+n;
                Statement Delt = Con.createStatement();
                Delt.executeUpdate(Q);
                //When the statement is executed, it'll show Month is deleted.
                JOptionPane.showMessageDialog(this,"Month is deleted! ");
                MonthDisplay();
            }catch(Exception e){
                JOptionPane.showMessageDialog(this,e);
            }
        }
    }


    private void EditMonthMouseClicked(java.awt.event.MouseEvent evt) {
        if(n == -1 || String.valueOf(VARMONTH.getMonth()).toString().isEmpty()){
            JOptionPane.showMessageDialog(this, " Missing information ");

        }else{
            try{
                //Month
                String Month = String.valueOf(VARMONTH.getMonth()+1);
                MonthString();
                //connecting to the month-tab and updating it by using UpdateQuery
                Con=DriverManager.getConnection(url,user,pass);
                String Q = "Update month_tab set MD=? where MId=? ";
                PreparedStatement UpdateQuery = Con.prepareStatement(Q);
                UpdateQuery.setString(1, m);
                UpdateQuery.setInt(2, n);
                UpdateQuery.executeUpdate();
                //Indicate if the month is edited
                JOptionPane.showMessageDialog(this,"The Month is edited! ");
                //Dipslaying the updated table
                MonthDisplay();
            }catch(Exception e){
                JOptionPane.showMessageDialog(this,e);
            }
        }
    }

    private void BackMonthMouseClicked(java.awt.event.MouseEvent evt) {
        //The Back Button will redirect you to the MainPage.
        new MainPage().setVisible(true);
        this.dispose();
    }
```

```
416    public static void main(String args[]) {
417
           java.awt.EventQueue.invokeLater(new Runnable() {
               public void run() {
420               new Thirdpage().setVisible(true);
421            }
422        });
423    }
424
```

Fourthpage class

```
1    package main.java.VoteManagementSys;
2
3    //Connection purposes
4    import java.sql.PreparedStatement;
5    import java.sql.Connection;
6    import java.sql.ResultSet;
7    import java.sql.Statement;
8    import java.sql.DriverManager;
9    //For message
10   import javax.swing.JOptionPane;
11   //For picture uploading
12   import java.io.File;
13   import java.io.FileInputStream;
14   import java.io.InputStream;
15   import javax.swing.JFileChooser;
16   import java.awt.Image;
17   import javax.swing.ImageIcon;
18   import javax.swing.filechooser.FileNameExtensionFilter;
19   /*To be able to use DbUtils
20   To use (net) u should include Rs2Xml file first.
21   This is then use to manipulate table
22   "www.youtube.com/watch?v=4nvTwvfWt7I"
23   */
24   import net.proteanit.sql.DbUtils;
25   import javax.swing.table.DefaultTableModel;
```

```
27   public class FourthPage extends javax.swing.JFrame {
28       //Copied from page before
29       Connection Con = null;
30       PreparedStatement pst = null;
31       ResultSet Rs = null;
32       Statement St = null;
33
34       String url = "jdbc:mysql://localhost:3306/oopdb";
35       String user = "root";
36       String pass = "";
37
38
39       public FourthPage() {
40           initComponents();
41           GetChooseOption();
42           EmployeeDisplay();
43       }
44
```

```java
    private void EMPSEARCHActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
    }


    int EmpId = 0;
    Statement St1;
    ResultSet Rs1;
    //Same function with the CalculateMonthID
    private void CalculateEmpID()
    {
       try{
           St1 = Con.createStatement();
           Rs1 = St1.executeQuery("Select MAX(EmpId) from emp_tab");
           Rs1.next();
           EmpId = Rs1.getInt(1)+1; // getint(1) is the row of the table.


       }catch(Exception Ex){
       }
    }

    //to search for picture in your computer
    String imgpath = null;
    private void EMPSEARCHMouseClicked(java.awt.event.MouseEvent evt) {
        JFileChooser chooser = new JFileChooser();
        //Setting the current directory to user.home
        //user.home contains the comp personal files
        chooser.setCurrentDirectory(new File(System.getProperty("user.home")));
        //To make sure that only photos are able to be added; not other type of files, i.e. docs,etc.
        FileNameExtensionFilter filter = new FileNameExtensionFilter(" *.Images","gif","pdf","jpg","png");
        chooser.addChoosableFileFilter(filter);
        int result = chooser.showSaveDialog(null);
        if(result == JFileChooser.APPROVE_OPTION){
            File selectedFile = chooser.getSelectedFile();
            String path = selectedFile.getAbsolutePath();
            //Setting the picture whilst sizing it with funct sizingpict.
            EMPPICT.setIcon(SizingPict(path,null));
            imgpath = path;
        }

    }
```

```java
        private void EMPADDMouseClicked(java.awt.event.MouseEvent evt) {
            if(EMPNAME.getText().isEmpty()|| EMPAGE.getText().isEmpty()||
               EMPCHOOSE.getSelectedIndex() == -1||EMPGENDER.getSelectedIndex()==-1 ){
                JOptionPane.showMessageDialog(this, "Information incomplete!");
            }else{
                try{
                CalculateEmpID();//calling the CalculateEmpID for updating EmpId
                //Connecting to mysql
                Con=DriverManager.getConnection(url,user,pass);
                //accessing the emp_tab in mysql ; there are 6 variables in emp_tab
                PreparedStatement Add = Con.prepareStatement("insert into emp_tab values (?,?,?,?,?,?)");
                //the setting of the table
                Add.setInt(1,EmpId);
                Add.setString(2, EMPNAME.getText());
                Add.setInt(3, Integer.valueOf(EMPAGE.getText()));
                Add.setString(4, EMPGENDER.getSelectedItem().toString());
                InputStream img = new FileInputStream(imgpath);
                Add.setBlob(5, img);
                Add.setInt(6, Integer.valueOf(EMPCHOOSE.getSelectedItem().toString()));
                //executing the new table data
                int row = Add.executeUpdate();
                JOptionPane.showMessageDialog(this, "Employee is registered!");
                Con.close();
                //Calling the employee display, to update when add is clicked.
                EmployeeDisplay();
                }catch(Exception e){
                    JOptionPane.showMessageDialog(this, e);
                }
            }
        }

    //To make sure the photo is not too big, or equals to the decided size in the JFrame
    private ImageIcon SizingPict( String ImagePath, byte [] pic){
        ImageIcon EmpImage = null;
        if(ImagePath != null){
            EmpImage = new ImageIcon(ImagePath);
        }else{
            EmpImage = new ImageIcon(pic);
        }
        Image img = EmpImage.getImage();
        //Scaling it with the size of the JFrame EMPPICT
        Image newImg = img.getScaledInstance(EMPPICT.getWidth(), EMPPICT.getHeight(),Image.SCALE_SMOOTH);
        ImageIcon image = new ImageIcon(newImg);
        return image;
    }
        //function that display the picture
        private void PhotoDisplay()
        {
        String Q = "Select EmpPhoto from emp_tab where EmpId="+n ;
        Statement St;
        ResultSet Rs;

        try{
            Con = DriverManager.getConnection(url,user,pass);
            St = Con.createStatement();
            Rs = St.executeQuery(Q);
            if(Rs.next()){
                EMPPICT.setIcon(SizingPict(null,Rs.getBytes("EmpPhoto")));

            }
        }catch(Exception e){
        }
        }
```

```java
//function that display the picture
private void PhotoDisplay()
{...16 lines }
//Display function, to display employee data to the table
private void EmployeeDisplay(){
    try{
        //connecting to the sql
        Con = DriverManager.getConnection(url,user,pass);
        St = Con.createStatement();
        //accessing the emp_table in mysql
        Rs = St.executeQuery("Select * from emp_tab");
        //setting the data to table model
        EmpTable.setModel(DbUtils.resultSetToTableModel(Rs));
    }catch(Exception ex){

    }
}
int n = -1;
private void EmpTableMouseClicked(java.awt.event.MouseEvent evt) {
    DefaultTableModel model = (DefaultTableModel)EmpTable.getModel();
    //When you click the table in employee page, these info will be shown
    int Index = EmpTable.getSelectedRow();
    n = Integer.valueOf(model.getValueAt(Index,0).toString());
    EMPNAME.setText(model.getValueAt(Index, 1).toString());
    EMPAGE.setText(model.getValueAt(Index, 2).toString());
    EMPGENDER.setSelectedItem(model.getValueAt(Index, 3).toString());
    EMPCHOOSE.setSelectedItem(model.getValueAt(Index,5).toString());
    PhotoDisplay();

}
```

```java
529    private void GetChooseOption(){
530        try{
531            //Connecting it with the thirdpage data
532            //The month data is there; it will be on the Choose part in fourpage.
533            Con=DriverManager.getConnection(url,user,pass);
534            St = Con.createStatement();
535            String Q = "Select * from month_tab";
536            Rs = St.executeQuery(Q);
537            while(Rs.next())
538            {
539                String MId2 = Rs.getString("MId");
540                EMPCHOOSE.addItem(MId2);
541            }
542        }catch(Exception e){
543        }
544    }

545    private void EMPDELETEMouseClicked(java.awt.event.MouseEvent evt) {
546        if(n == -1){
547            //if none from the table is clicked n = -1
548            JOptionPane.showMessageDialog(this, " Which one you want to delete? ");
549
550        }else{
551            try{
552                Con=DriverManager.getConnection(url,user,pass);
553                String Q = " Delete from emp_tab where EmpId = "+n;
554                Statement Delt = Con.createStatement();
555                //The delete execution; deleting the data from the sql
556                Delt.executeUpdate(Q);
557                JOptionPane.showMessageDialog(this,"Election is deleted! ");
558                EmployeeDisplay();
559            }catch(Exception e){
560                JOptionPane.showMessageDialog(this,e);
561            }
562        }
563    }

564    private void EMPEDITMouseClicked(java.awt.event.MouseEvent evt) {
565
566
567        if (imgpath !=null){
568            try{
569                //overwrite the img with new file
570                InputStream img = new FileInputStream(imgpath);
571
572                Con=DriverManager.getConnection(url,user,pass);
573                String Q = " Update emp_tab set EmpName=?,EmpAge=?,EmpGen=?,EmpPhoto=?,EmpChoose=? where EmpId=?";
574                PreparedStatement UpdateQuery = Con.prepareStatement(Q);
575                UpdateQuery.setString(1, EMPNAME.getText());
576                UpdateQuery.setInt(2, Integer.valueOf(EMPAGE.getText().toString()));
577                UpdateQuery.setString(3, EMPGENDER.getSelectedItem().toString());
578                UpdateQuery.setBlob(4, img);
579                UpdateQuery.setString(5, EMPCHOOSE.getSelectedItem().toString());
580                UpdateQuery.setInt(6,n);
581                UpdateQuery.executeUpdate();
582                if(UpdateQuery.executeUpdate() ==1){
583                JOptionPane.showMessageDialog(this,"Employee is edited! ");
584                //To update the table visual
585                EmployeeDisplay();
586                }else{
587                    //if some of the info is not filled
588                    JOptionPane.showMessageDialog(this,"Information incomplete!");
589                }
590            }catch(Exception e){
591                JOptionPane.showMessageDialog(this,e);
592            }
593        }else{
594            JOptionPane.showMessageDialog(this,"Select the photo!");
595            EMPPICT.setIcon(null);
596            EMPPICT.setText("");
597        }
598    }
```

```
           private void EMPBACKMouseClicked(java.awt.event.MouseEvent evt) {
601            //The back button will redirect you to the MainPage
602            new MainPage().setVisible(true);
603            this.dispose();
604        }
```

Fifthpage class

```
1     package main.java.VoteManagementSys;
2     //For connection purposes
3     import java.sql.PreparedStatement;
4     import java.sql.Connection;
5     import java.sql.ResultSet;
6     import java.sql.Statement;
7     import java.sql.DriverManager;
8     //For showing message
9     import javax.swing.JOptionPane;
10    //For table manipulation
11    import net.proteanit.sql.DbUtils;
12    import javax.swing.table.DefaultTableModel;
13
14
15    public class Fifthpage extends javax.swing.JFrame {
16        //Copied code from pages before.
17        Connection Con = null;
18        PreparedStatement pst = null;
19        ResultSet Rs = null;
20        Statement St = null;
21
22        String url = "jdbc:mysql://localhost:3306/oopdb";
23        String user = "root";
24        String pass = "";
25
26        public Fifthpage() {
27            //initializing the component
28            initComponents();
29            //calling functions
30            GetChooseOption();
31            VisDisplay();
32        }
```

```
381       private void GetChooseOption(){
382           try{
383               //Connecting it with the thirdpage data
384               //The month data is there; it will be on the Choose part in fourpage.
385               Con=DriverManager.getConnection(url,user,pass);
386               St = Con.createStatement();
387               String Q = "Select * from month_tab";
388               Rs = St.executeQuery(Q);
389               //rs.next moves cursor forward from its current position
390               while(Rs.next())
391               {
392                   String MId2 = Rs.getString("MId");
393                   VISCHOOSE.addItem(MId2);
394
395               }
          }catch(Exception e){
397
398           }
399       }
400
```

```java
401        int VisId ;
402        Statement St1;
403        ResultSet Rs1;
404        //Same function with CalculateMonthID
405        private void CalculateVisID()
406        {
407          try{
408              St1 = Con.createStatement();
409              Rs1 = St1.executeQuery("Select MAX(VisId) from vis_tab");
410              Rs1.next();
411              VisId = Rs1.getInt(1)+1;
412
413
           }catch(Exception Ex){
415          }
416        }
417        //function that is used to display in table
418        private void VisDisplay(){
419            try{
420                //creating connection from vis_tab in my sql
421                Con = DriverManager.getConnection(url,user,pass);
422                St = Con.createStatement();
423                Rs = St.executeQuery("Select * from vis_tab");
424                VisitorTable.setModel(DbUtils.resultSetToTableModel(Rs));
           }catch(Exception ex){
426
427            }
428        }

461        int n = -1;
        private void VISDELETEMouseClicked(java.awt.event.MouseEvent evt) {
463            if(n == -1){
464                //you have to select if you don't want to be popped up by this question
465                JOptionPane.showMessageDialog(this, " Which one you want to delete? ");
466
467            }else{
468                try{
469                    //connecting with the sql
470                    Con=DriverManager.getConnection(url,user,pass);
471                    //you have to select first before being able to delete
472                    String Q = " Delete from vis_tab where VisId = "+n;
473                    Statement Delt = Con.createStatement();
474                    Delt.executeUpdate(Q);//executing the delete statement
475                    JOptionPane.showMessageDialog(this,"Visitor information is deleted! ");
476                    //displaying the information again ,p.s. already updated.
477                    VisDisplay();
               }catch(Exception e){
479                    JOptionPane.showMessageDialog(this,e);
480                }
481            }
482        }
```

```java
private void VISADDMouseClicked(java.awt.event.MouseEvent evt) {
    if(VISAGE.getText().isEmpty()|| VISNAME.getText().isEmpty()||
        VISCHOOSE.getSelectedIndex() == -1||VISGENDER.getSelectedIndex()== -1 ){
        //if there's unfilled thing, it will show "information incomplete"
        JOptionPane.showMessageDialog(this, "Information incomplete!");
    }else{
        try{
        //calling the calculate VisID to update the VisId
        CalculateVisID();
        Con=DriverManager.getConnection(url,user,pass);
        //connecting data with mysql; connecting with the vis_tab and inserting to 6 values
        PreparedStatement Add = Con.prepareStatement("insert into vis_tab values (?,?,?,?,?,?)");
        //adding the values
        Add.setInt(1,VisId);
        Add.setString(2, VISNAME.getText());
        Add.setInt(3, Integer.valueOf(VISAGE.getText()));
        Add.setString(4, VISPASS.getText());
        Add.setString(5, VISGENDER.getSelectedItem().toString());
        Add.setInt(6, Integer.valueOf(VISCHOOSE.getSelectedItem().toString()));

        int row = Add.executeUpdate();
        //Pop up message to tell you when add is successfully done
        JOptionPane.showMessageDialog(this, "Visitor account is created!");
        Con.close();
        //Updating the display
        VisDisplay();
        }catch(Exception e){
            JOptionPane.showMessageDialog(this, e);
        }
    }
}


private void VisitorTableMouseClicked(java.awt.event.MouseEvent evt) {
    //when the visitor table is clicked
    DefaultTableModel model = (DefaultTableModel)VisitorTable.getModel();
    //assigning index as the clicked part
    int Index = VisitorTable.getSelectedRow();
    //setting up; so when it is clicked, the infos are filled in the name area,age,etc.
    n = Integer.valueOf(model.getValueAt(Index,0).toString());
    VISNAME.setText(model.getValueAt(Index, 1).toString());
    VISAGE.setText(model.getValueAt(Index, 2).toString());
    VISPASS.setText(model.getValueAt(Index, 3).toString());
    VISGENDER.setSelectedItem(model.getValueAt(Index, 4).toString());
    VISCHOOSE.setSelectedItem(model.getValueAt(Index,5).toString());
    //calling the display function to display
    VisDisplay();
}
```

```java
     private void VISEDITMouseClicked(java.awt.event.MouseEvent evt) {
501       if(VISAGE.getText().isEmpty()|| VISNAME.getText().isEmpty()||
502          VISCHOOSE.getSelectedIndex() == -1||VISGENDER.getSelectedIndex()== -1 ){
503          //by not selecting row at table, missing info will pop!
504          JOptionPane.showMessageDialog(this, " Missing information ");
505
506       }else{
507          try{
508              //First you have to select the one you want to edit by clicking onto the table
509              //Connecting to the vis_tab in my sql and setting the VisName,etc.
510              Con=DriverManager.getConnection(url,user,pass);
511              String Query = " Update vis_tab set VisName=?,VisAge=?, VisPass=?,VisGen=?,VisChoose=? where VisId=?";
512              PreparedStatement UpdateQuery = Con.prepareStatement(Query);
513              //Setting the new information
514              UpdateQuery.setString(1, VISNAME.getText());
515              UpdateQuery.setInt(2, Integer.valueOf(VISAGE.getText()) );
516              UpdateQuery.setString(3, VISPASS.getText());
517              UpdateQuery.setString(4, VISGENDER.getSelectedItem().toString());
518              UpdateQuery.setInt(5, Integer.valueOf(VISCHOOSE.getSelectedItem().toString()));
519              UpdateQuery.setInt(6,n);
520              UpdateQuery.executeUpdate();
521              //Pop up message shown when edit is done
522              JOptionPane.showMessageDialog(this,"Customer account is edited! ");
523              VisDisplay();
          }catch(Exception e){
525              JOptionPane.showMessageDialog(this,e);
526          }
527       }
528    }
529
     private void VISBACKMouseClicked(java.awt.event.MouseEvent evt) {
531       //the back button will redirect you to the mainpage.
532       new MainPage().setVisible(true);
533       this.dispose();
534    }

537       public static void main(String args[]) {
              java.awt.EventQueue.invokeLater(new Runnable() {
                  public void run() {
540                     new Fifthpage().setVisible(true);
541                 }
542             });
543       }
```

Sixthpage class

```java
1      package main.java.VoteManagementSys;
2
3      //for connection to sql purposes
4      import java.sql.PreparedStatement;
5      import java.sql.Connection;
6      import java.sql.ResultSet;
7      import java.sql.Statement;
8      import java.sql.DriverManager;
9      //for picture
10     import javax.swing.ImageIcon;
11     import java.awt.Image;
12     //for message
13     import javax.swing.JOptionPane;
14     //for table manipulation
15     import net.proteanit.sql.DbUtils;
16     import javax.swing.table.DefaultTableModel;
17
```

```java
263        //To make sure the photo is not too big, or equals to the decided size in the JFrame
264        private ImageIcon SizingPict( String ImagePath, byte [] pic){
265            ImageIcon EmpImage = null;
266            if(ImagePath != null){
267                EmpImage = new ImageIcon(ImagePath);
268            }else{
269                EmpImage = new ImageIcon(pic);
270            }
271            Image img = EmpImage.getImage();
272            //Scaling it with the size of the JFrame EMPPICT
273            Image newImg = img.getScaledInstance(EMPPHOTO.getWidth(), EMPPHOTO.getHeight(),Image.SCALE_SMOOTH);
274            ImageIcon image = new ImageIcon(newImg);
275            return image;
276        }
277
278        private void SDisplay(){
279            try{
280                //displaying function to the table
281                //connection from emp_tab in mysql
282                Con = DriverManager.getConnection(url,user,pass);
283                St = Con.createStatement();
284                Rs = St.executeQuery("Select * from emp_tab");
285                TableS.setModel(DbUtils.resultSetToTableModel(Rs));
286            }catch(Exception ex){
287
288            }
289        }
290
291        private void PhotoDisplay()
292        {
293        //function to display photo
294        //Getting the Photo from the employee tab
295        String Q = "Select EmpPhoto from emp_tab where EmpId="+n ;
296        Statement St;
297        ResultSet Rs;
298
299        try{
300            //connecting to the sql first and to the emp_tab
301            Con = DriverManager.getConnection(url,user,pass);
302            St = Con.createStatement();
303            Rs = St.executeQuery(Q);
304            if(Rs.next()){
305                EMPPHOTO.setIcon(SizingPict(null,Rs.getBytes("EmpPhoto")));
306
307            }
308        }catch(Exception e){
309
310        }
311        }
312
313        int check;
314        private void Once(){
315            //function that is used so that the same user can't vote twice
316            try{
317                St1 = Con.createStatement();
318                Rs1 = St.executeQuery("select * from result_tab where VisId="+
319                    SixthID+" and MId="+Id2+" ");
320            //if function that set up int check to 1 or 0; 1 is for ppl that has voted once.
321                if(Rs1.next()){check = 1;}else{check = 0;}
322            }catch(Exception EX){
323                JOptionPane.showMessageDialog(this,EX);
324            }
325        }
326
```

```java
        private void TableSMouseClicked(java.awt.event.MouseEvent evt) {
328         //when the table is clicked, it will :
329         DefaultTableModel model = (DefaultTableModel)TableS.getModel();
330         //get the value at the selected row and filling the information in the space available
331         int Index = TableS.getSelectedRow();
332         n = Integer.valueOf(model.getValueAt(Index,0).toString());
333         //changin name variable in JFrame to the name of the applicant ( name label)
334         EMPNAME.setText(model.getValueAt(Index,1).toString());
335         Id2 = Integer.valueOf(model.getValueAt(Index, 5).toString());//what month user chose
336
337         PhotoDisplay();
338     }
339     int RId ;
340     Statement St1 = null;
341     ResultSet Rs1 = null;
342     //same function with CalculateMonthID
343     private void CalculateResultID()
344     {
345       try{
346         //connecitng to result tab and taking the max RId value
347         St1 = Con.createStatement();
348         Rs1 = St1.executeQuery("Select MAX(RId) from result_tab");
349         Rs1.next();
350         //Getting the max and add it with 1
351         RId = Rs1.getInt(1)+1;
352
        }catch(Exception Ex){
354       }
355     }
356
        private void SupportButtonMouseClicked(java.awt.event.MouseEvent evt) {
358         //calling the Once function to make sure 1 person = 1 vote.
359         Once();
360         if(n == -1){
361           //if the button isn't click.
362           JOptionPane.showMessageDialog(this,"Vote!!!");
363         }else if(check>0)
364         {
365           //if you have voted once check = 1; if it is >0 you haven't voted
366           JOptionPane.showMessageDialog(this, "You have voted before!");
367         }else{
368           try{
369             //Counting the RId function
370             CalculateResultID();
371             //connecting to the result_tab in mysql and inserting 4 values.
372             Con=DriverManager.getConnection(url,user,pass);
373
374             PreparedStatement Add = Con.prepareStatement("Insert into result_tab values (?,?,?,?)");
375             //setting up the values
376             Add.setInt(1,RId);
377             Add.setInt(2,SixthID);//VisId
378             Add.setInt(3,Id2);//Basically this becomes the MId
379             Add.setInt(4,n);//EmpId
380
            int row = Add.executeUpdate();
382             JOptionPane.showMessageDialog(this, "Voted!");
383             //closing the connection
384             Con.close();
385             //SUPPORT text will be visible once you click the support button
386             textnoted.setVisible(true);
387             SDisplay();//updating the display
388             //meanwhile the support button will be gone
389             SupportButton.setVisible(false);
390
          }catch (Exception e){
392             JOptionPane.showMessageDialog(this, e);
393
```

```
397        //button support back
           private void ButtonSBMouseClicked(java.awt.event.MouseEvent evt) {
399            //redirecting you to the secondpage
400            new Secondpage().setVisible(true);
401            this.dispose();
402        }
403
404
405        public static void main(String args[]) {
406
               java.awt.EventQueue.invokeLater(new Runnable() {
                   public void run() {
409                    new Sixthpage().setVisible(true);
410                }
411            });
412        }
```

Seventhpage class

```
1     package main.java.VoteManagementSys;
2
3
4     //For connection purposes
5     import java.sql.PreparedStatement;
6     import java.sql.Connection;
7     import java.sql.ResultSet;
8     import java.sql.Statement;
9     import java.sql.DriverManager;
10    //For showing message
11    import javax.swing.JOptionPane;
12    //For displaying image
13    import javax.swing.ImageIcon;
14    import java.awt.Image;
15    //For manipulating table
16    import net.proteanit.sql.DbUtils;
17    import javax.swing.table.DefaultTableModel;
18    //For Percentage
19    import java.text.DecimalFormat;
20
21    public class Seventhpage extends javax.swing.JFrame {
22        //Copied from pages before
23        Connection Con = null;
24        PreparedStatement pst = null;
25        ResultSet Rs = null;
26        Statement St = null;
27
28        String url = "jdbc:mysql://localhost:3306/oopdb";
29        String user = "root";
30        String pass = "";
31
32        //declared variables
33        int Winner;
34        int Support;
35        int Rate;
36        int n;
37        int total;
38
```

```java
39      public Seventhpage() {
40          initComponents();
41          MonthDisplay();
42          GetBestEmployee();
43
44      }
45
46
47      @SuppressWarnings("unchecked")
48
49
50      private void GetBestEmployee(){
51          try{
52
53              Con=DriverManager.getConnection(url,user,pass);
54              //String Q = " select EmpId, Count(EmpId) from result_tab where MId="+n
55              //      +" Group BY EmpId ORDER BY EmpId DESC LIMIT 1 ";
56              //https://stackoverflow.com/questions/12235595/find-most-frequent-value-in-sql-column
57              //To get the most frequent value methodS
58              String Q = "Select EmpId, COUNT(EmpId) as totalrep from result_tab GROUP BY EmpId ORDER BY totalrep DESC LIMIT 1";
59              St = Con.createStatement();
60              Rs = St.executeQuery(Q);
61              while(Rs.next()){
62                  Winner = Rs.getInt(1);
63
64              }
65          }catch(Exception e){
66              JOptionPane.showMessageDialog(this,e);
67          }
68      }
69      private ImageIcon SizingPict( String ImagePath, byte [] pic){
70          ImageIcon EmpImage = null;
71          if(ImagePath != null){
72              EmpImage = new ImageIcon(ImagePath);
73          }else{
74              EmpImage = new ImageIcon(pic);
75          }
76          Image img = EmpImage.getImage();
77          //Scaling it with the size of the JFrame EMPPICT
78          Image newImg = img.getScaledInstance(EMPPHOTO.getWidth(), EMPPHOTO.getHeight(),Image.SCALE_SMOOTH);
79          ImageIcon image = new ImageIcon(newImg);
80          return image;
81      }
82      private void WinnerData()
83      {
84      //The Q is to select photo and name from the emp_tab and the Winner key helps to select the right emp
85      String Q = "Select EmpPhoto,EmpName from emp_tab where EmpId="+Winner ;
86      Statement St;
87      ResultSet Rs;
88
89      try{
90          //Connecting to the empdata in my sql
91          Con = DriverManager.getConnection(url,user,pass);
92          St = Con.createStatement();
93          Rs = St.executeQuery(Q);
94          if(Rs.next()){
95              //setting the picture
96              EMPPHOTO.setIcon(SizingPict(null,Rs.getBytes("EmpPhoto")));
97              //The name of employee will be shown overwriting the label "name" in JFrame
98              SEVENTHPAGENAME.setText(Rs.getString("EmpName"));
99          }
100     }catch(Exception e){
101
102     }
103     }
```

```java
104        //function that shows the percentage of winning
105        private void Rate()
106        {
107        try{
108            //connecting to the result_tab in my sql
109            Con=DriverManager.getConnection(url,user,pass);
110
111            String Q = " select Count(*) from result_tab where MId = "+
112                        n;
113            St = Con.createStatement();
114            Rs = St.executeQuery(Q);
115            while(Rs.next()){
116                //getting the total support
117                total = Rs.getInt(1);
118                double rate;
119                //method to calculate percentage
120                rate = (Support* 100)/total ;
121                //string format
122                RateTxt.setText(new DecimalFormat("##.##").format(rate)+"%");
123            }
           }catch(Exception e){
125            JOptionPane.showMessageDialog(this,e);
126        }
127      }
128        private void Calculation()
129        {
130        try{
131
132            Con=DriverManager.getConnection(url,user,pass);
133            //Getting the support of the best employee; by counting the empId of the winner
134            String Q = " select Count(EmpId) from result_tab where EmpId = "+
135                        Winner;
136            St = Con.createStatement();
137            Rs = St.executeQuery(Q);
138            while(Rs.next()){
139
140                Support = Rs.getInt(1);
141
142                Text2.setText(Support+ " Supports ");
143            }
           }catch(Exception e){
145            JOptionPane.showMessageDialog(this,e);
146        }
147      }
148
```

```java
private void MonthTable2MouseClicked(java.awt.event.MouseEvent evt) {
    //if the month table is clicked
    DefaultTableModel model = (DefaultTableModel)MonthTable2.getModel();
    int Index = MonthTable2.getSelectedRow();
    n = Integer.valueOf(model.getValueAt(Index,0).toString());
    //calling function
    GetBestEmployee();
    WinnerData();
    Calculation();
    Rate();

}

private void BackResultMouseClicked(java.awt.event.MouseEvent evt) {
    //By clicking the back button, it will redirect you to the MainPage
    new Secondpage().setVisible(true);
    this.dispose();
}

private void BackResultActionPerformed(java.awt.event.ActionEvent evt) {...3 lines }
//Function to display the month
private void MonthDisplay()
{
    try{
        Con=DriverManager.getConnection(url,user,pass);
        St = Con.createStatement();
        Rs = St.executeQuery("Select * from month_tab ");
        MonthTable2.setModel(DbUtils.resultSetToTableModel(Rs));
    }
    catch(Exception e){
        System.out.println("Error: " + e.getMessage());
    }
}
```

Mainpage class

```java
package main.java.VoteManagementSys;

public class MainPage extends javax.swing.JFrame {
    //you dont need connection to sql in this oage, therefore no need to import
    //for connection purposes.

    public MainPage() {
        initComponents();
    }
```

```java
private void Pict1MouseClicked(java.awt.event.MouseEvent evt) {
    //If you click pict1 or Month pict, it will redirect you to thirdpage
    new Thirdpage().setVisible(true);
    this.dispose();
}

private void Pict2MouseClicked(java.awt.event.MouseEvent evt) {
    //If you click pict2, it'll redirect you to fourthpage
    new FourthPage().setVisible(true);
    this.dispose();
}

private void Pict3MouseClicked(java.awt.event.MouseEvent evt) {
    //If you click pict3, it'll redirect you to fifthpage
    new Fifthpage().setVisible(true);
    this.dispose();
}

private void Pict4MouseClicked(java.awt.event.MouseEvent evt) {
    //if you click pict4,it will redirect you to seventhpage
    new Seventhpage().setVisible(true);
    this.dispose();
}

private void LogoutBtnMouseClicked(java.awt.event.MouseEvent evt) {
    //if you click the logout button, itl'' redirect you to the login page
    new Secondpage().setVisible(true);
    this.dispose();
}

public static void main(String args[]) {

    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new MainPage().setVisible(true);
        }
    });

}
```
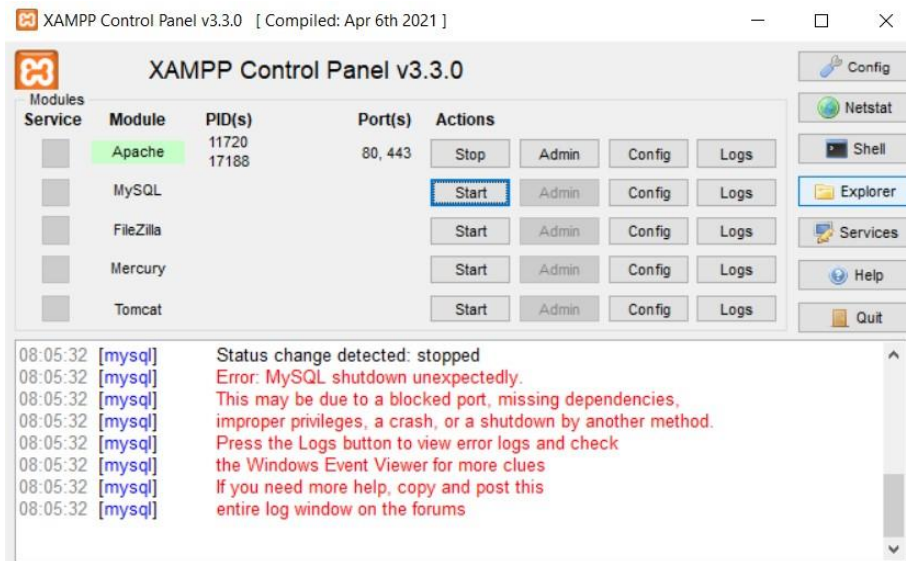
REFERENCES:

- https://www.flaticon.com/free-icons/elections
- https://www.ssec.wisc.edu/mcidas/software/v/javadoc/1.4/edu/wisc/ssec/mcidasv/data/dateChooser/JCalendar.html
- https://stackoverflow.com/questions/50398537/mysql-not-pushing-insert-into-database-with-netbeans
- https://toedter.com/jcalendar/
- https://www.youtube.com/watch?v=4c3WYK5FpqI
- https://www.youtube.com/watch?v=0DPB70hZykg
- https://colorhunt.co/palette/68a7ad99c4c8e5cb9feee4ab
- http://www.java2s.com/Code/Jar/c/Downloadcommonsdbutils13sourcesjar.htm
- https://www.rapidtables.com/convert/color/hex-to-rgb.html
- https://www.youtube.com/watch?v=rEzrhDTR5HI

PROBLEMS

This problem occurs a lot of time when I tried to start mySql. So what I did is:
I named data to data_lama and then I created an empty folder with the name of data.

After that, I copied all the files in backup to data, and then I go to data lama and copied my tables. After that, I restart and run it again.