JAVA SWING BASED – SYSTEM DENDROGRAM

SQL CONNECTIVITY USING JDBC

A Report

Submitted in partial fulfilment of the

Requirements for the award of the Degree of

BACHELOR OF TECHNOLOGY IN

INFORMATION TECHNOLOGY

By

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BONAFIDE CERTIFICATE

This to Certify that the project report titled **“SYSTEM DENDROGRAM”**project work of

Mr. M.CHARAN RAJ bearing

Roll.no:1602-20-737-009 who carried out this project under my supervision in the IV semester for the academic year 2021-2022.

Signature external examiner

Signature internal examiner

ABSTRACT:

A **dendrogram** is a diagram representing a tree. This diagrammatic representation is frequently used in different contexts:

- in hierarchical clustering, it illustrates the arrangement of the clusters produced by the corresponding analyses.
- in computational biology, it shows the clustering of genes or samples, sometimes in the margins of heatmaps.
- in phylogenetic it displays the evolutionary relationships among various biological data. In this case, the dendrogram is also called a phylogenetic tree.

The dendrogram is a visual representation of the compound correlation data. The individual compounds are arranged along the bottom of the dendrogram and referred to as leaf nodes. Compound clusters are formed by joining individual compounds or existing compound clusters with the join point referred to as a node.

In this project “SYSTEM DENDROGRAM” ,we generate dendrogram or tree representation for the System(CPU). Here we generate dendrograms for different cpu’s.

Introduction:

Requirement Analysis

List of Tables:

1.Cpu
2.Chassis
3. Memory

List of Attributes with their Domain Type:

Cpu:

Manufacturer	varchar2(30)
mid	number

Chassis:

Manufacturer	varchar2(30)
Length_in_cm	number
Width_in_cm	number
Weight_in_kg	number

Memory:

Manufacturer	varchar2(30)
capof_ram_in_gb	number
capof_hardd_in_gb	number

THROUGH THE PROJECT:

The dendrogram is a visual representation of the compound correlation data. The individual compounds are arranged along the bottom of the dendrogram and referred to as leaf nodes. Compound clusters are formed by joining individual compounds or existing compound clusters with the join point referred to as a node.
In this project “SYSTEM DENDROGRAM” ,we generate dendrogram or tree representation for the System(CPU). Here we generate dendrograms for different cpu’s.

ARCHITECTURE AND TECHNOLOGY USED:

Software Used:

Java Eclipse, MySQL V8.0.29, Java SE version 17.

Java SWING:

SWING is a GUI widget toolkit for Java. It is part of Oracle's Java Foundation Classes (JFC) – an API for providing a graphical user interface (GUI) for Java programs.

wing was developed to provide a more sophisticated set of GUI components than the earlier AWT.

Swing provides a look and feel that emulates the look and feel of several platforms, and also supports a pluggable look and feel that allows applications to have a look and feel unrelated to the underlying platform. It has more powerful and flexible components than AWT. In addition to familiar components such as buttons, check boxes and labels, Swing also provides several advanced components such as tabbed panel, scroll panes, trees, tables and lists.

Java-MySQL Connectivity using JDBC:

Java Database Connectivity (JDBC) is an application programming interface (API) for the programming language Java, which defines how a client may access a database. It is a Java-based data access technology used for Java database connectivity. It is part of the Java Standard Edition platform, from Oracle Corporation. It provides methods to query and update data in a database and is oriented towards relational databases.

The connection to the database can be performed using Java programming (JDBC API) as:

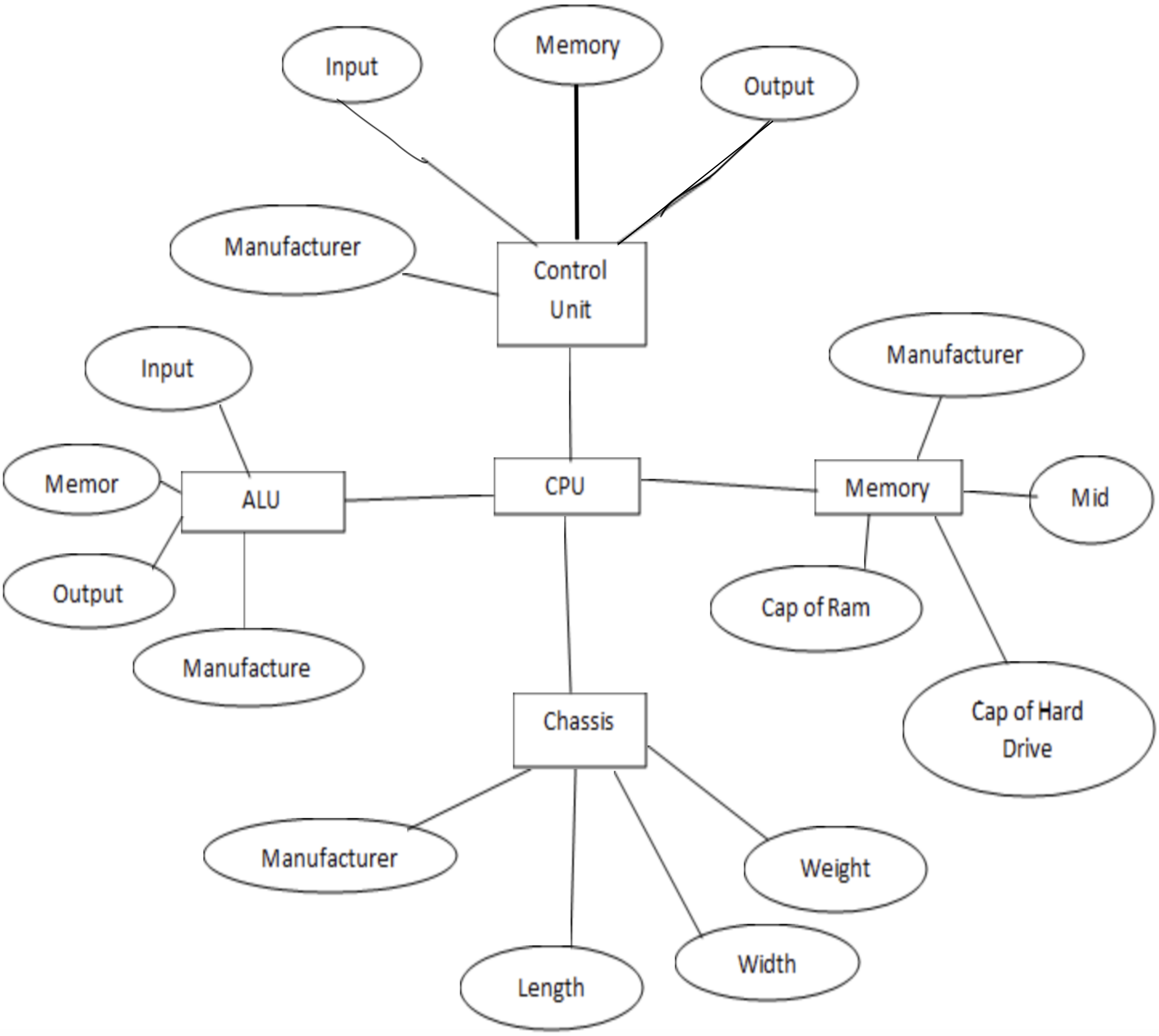
```
try{

Class.forName("com.mysql.cj.jdbc.Driver");

con=DriverManager.getConnection("jdbc:mysql://localhost:3306/sdendrogram","root","Charan@123");

}catch(Exception e){System.out.println(e);}
```

Thus, the connection from Java to Oracle database is performed and therefore, can be used for updating tables in the database directly

Table Created in SQL for above mentioned purpose is as:

```
mysql>create table cpu(
   -> manufacturer varchar(30) not null,
   -> mid int(5),
   -> primary key(manufacturer));
Query OK, 0 rows affected, 1 warning (13.28 sec)


mysql> create table chasis(
   -> manufacturer varchar(30),
   -> length_in_cm int(5),
   -> width_in_cm int(5),
   -> weight_in_kg int(5),
   -> primary key(length_in_cm),
   -> foreign key(manufacturer) references cpu(manufacturer)
   -> on delete cascade
   -> );
Query OK, 0 rows affected, 3 warnings (3.47 sec)


mysql> create table memory(
   -> manufacturer varchar(30),
   -> capof_ram_in_gb int(5),
   -> capof_hardd_in_gb int(5),
   -> primary key(capof_ram_in_gb),
   -> foreign key(manufacturer) references cpu(manufacturer)
   -> on delete cascade
   -> );
```

DESIGN:
ER DIAGRAM:



Database Design:

```
mysql> show tables;
+-----------------------+
| Tables_in_sdendrogram |
+-----------------------+
| chasis                |
| cpu                   |
| memory                |
+-----------------------+
3 rows in set (0.06 sec)


mysql> select * from cpu;
+--------------+----------+
| manufacturer | mid      |
+--------------+----------+
| Apple        |   453272 |
| DELL         |    91126 |
| Hp           |  5673833 |
| IBM          | 32514698 |
+--------------+----------+
4 rows in set (0.01 sec)


mysql> select * from chasis;
+--------------+--------------+-------------+--------------+
| manufacturer | length_in_cm | width_in_cm | weight_in_kg |
+--------------+--------------+-------------+--------------+
| DELL         |           30 |          54 |            6 |
| IBM          |           32 |          55 |            4 |
+--------------+--------------+-------------+--------------+
2 rows in set (0.00 sec)


mysql> select * from memory;
+--------------+-----------------+-------------------+
| manufacturer | capof_ram_in_gb | capof_hardd_in_gb |
+--------------+-----------------+-------------------+
| DELL         |               4 |                16 |
| IBM          |              16 |                 2 |
| Hp           |              32 |                 8 |
+--------------+-----------------+-------------------+
3 rows in set (0.00 sec)
```

Implementation:

Program:

SQl connection:

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.Statement;

public class mysqlconn {
	public static Connection getConnection(){
		Connection con=null;
		try{
			Class.forName("com.mysql.cj.jdbc.Driver");

	con=DriverManager.getConnection("jdbc:mysql://localhost:3306/sdendrogram",
"root","Charan@123");
		}catch(Exception e){System.out.println(e);}
		return con;
	}

}
```

CPU Table:

1.Cpu details:

```
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;

public class cpudetails {

	public static boolean checkcpu(String manufacturer){
		boolean status=false;
		try{
			Connection con=mysqlconn.getConnection();
			PreparedStatement ps=con.prepareStatement("select * from cpu
where manufacturer=?");
			ps.setString(1,manufacturer);
		   ResultSet rs=ps.executeQuery();
			status=rs.next();
			con.close();
		}catch(Exception e){System.out.println(e);}
		return status;
	}
	public static int insertcpu(String manufacturer,int mid){
		int status=0;
		try{
			Connection con=mysqlconn.getConnection();
			PreparedStatement ps=con.prepareStatement("insert into
cpu(manufacturer,mid) values(?,?)");
			ps.setString(1,manufacturer);
			ps.setInt(2,mid);
			status=ps.executeUpdate();
			con.close();
		}catch(Exception e){System.out.println(e);}
		return status;
	}
	public static int deletecpu(String manufacturer){
		int status=0;
		try{
			Connection con=mysqlconn.getConnection();
			PreparedStatement ps=con.prepareStatement("delete from cpu
where manufacturer=?");
			ps.setString(1,manufacturer);
			status=ps.executeUpdate();
			con.close();
		}catch(Exception e){System.out.println(e);}
		return status;
	}
}
```

2. Add CPU:

```
import java.awt.EventQueue;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.JLabel;
import javax.swing.JOptionPane;

import java.awt.Font;
import java.awt.Color;

import javax.swing.JTextField;
import javax.swing.JButton;

import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;
```

```
public class addcpu extends JFrame {
    private static final long serialVersionUID = 1L;
    static addcpu frame;
    private JPanel contentPane;
    private JTextField TextField;
    private JTextField TextField_1;

    /**
     * Launch the application.
     */
    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    frame = new addcpu();
                    frame.setTitle("CPU Info.");
                    frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    /**
     * Create the frame.
     */
    public addcpu() {
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setBounds(110, 95, 650, 400);
    setResizable(false);

    contentPane = new JPanel();
    contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
    setContentPane(contentPane);
    contentPane.setLayout(null);

    TextField = new JTextField();
    TextField.setFont(new Font("Tahoma", Font.PLAIN, 18));
    TextField.setBounds(290, 125, 326, 40);
    contentPane.add(TextField);
    TextField.setColumns(10);

    TextField_1 = new JTextField();
    TextField_1.setFont(new Font("Tahoma", Font.PLAIN, 18));
    TextField_1.setBounds(290, 175, 326, 40);
    contentPane.add(TextField_1);
    TextField_1.setColumns(10);
```

```
        TextField.setText("");
                TextField_1.setText("");

                JLabel lbladdcpus = new JLabel("Add CPU");
        lbladdcpus.setFont(new Font("Courier New", Font.BOLD, 36));
        lbladdcpus.setForeground(Color.BLACK);
        lbladdcpus.setBounds(275, 27, 200, 40);
        contentPane.add(lbladdcpus);
                JLabel lblmanu = new JLabel("Manufacturer :");
        lblmanu.setFont(new Font("Big Calson", Font.PLAIN, 18));
        lblmanu.setBounds(45, 125, 326, 40);
        contentPane.add(lblmanu);

                JLabel mid = new JLabel("M-ID :");
        mid.setFont(new Font("Big Calson", Font.PLAIN, 18));
        mid.setBounds(45, 175, 326, 40);
        contentPane.add(mid);
                JButton btnaddcpus = new JButton("Submit");
                btnaddcpus.addActionListener(new ActionListener() {
                        public void actionPerformed(ActionEvent e) {
                        String m =TextField.getText();
                        int mid;
                        if((TextField_1.getText()).equals(""))
                                mid = 0;
                        else
                                mid=Integer.parseInt(TextField_1.getText());

                        if(m.equals("")|| mid ==0) {
                                JOptionPane.showMessageDialog(addcpu.this,"Unknown Error
    !!!\n TextField Cannot be Blank");
                        }
                        else {
                        if(cpudetails.checkcpu(m)) {
                                JOptionPane.showMessageDialog(addcpu.this,"CPU with
    Same manufacturer is present already\nInserton Failed !!!");
                        }
                        else {
                        int i=cpudetails.insertcpu(m,mid);
                        if(i>0){
                                JOptionPane.showMessageDialog(addcpu.this,"CPU added
    successfully!");
                        }else{
                                JOptionPane.showMessageDialog(addcpu.this,"Unknown Error
    !!!\nInsertion not completed");
                        }
                        }
                        }
                        }
                });
        btnaddcpus.setFont(new Font("Tahoma", Font.PLAIN, 20));
    btnaddcpus.setBackground(new Color(240, 240, 240));
    btnaddcpus.setBounds(300, 300, 130, 50);
    contentPane.add(btnaddcpus);


        JButton btnBack = new JButton("Back");
        btnBack.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e1) {
                cpu.main(new String[]{});
                frame.dispose();
            }
            });
          btnBack.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnBack.setBackground(new Color(240, 240, 240));
        btnBack.setBounds(450, 300, 130, 50);
        contentPane.add(btnBack);
    }

}
```

3.Delete CPU:

```
import java.awt.BorderLayout;
import java.awt.Color;
import java.awt.EventQueue;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JTextField;
import javax.swing.JButton;

import java.awt.Font;
import java.awt.event.ActionListener;
import java.awt.event.KeyAdapter;
import java.awt.event.KeyEvent;
import java.awt.event.KeyListener;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import java.awt.event.ActionEvent;

public class deletecpu extends JFrame {
    private static final long serialVersionUID = 1L;
    static deletecpu frame;
    private JPanel contentPane;
private JTextField TextField;
private JLabel lblmanufacturer;
private JTextField TextField1;
private JLabel lblmid;


    /**
     * Launch the application.
     */
    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    frame = new deletecpu();
                    frame.setTitle("Delete CPU Info.");
                    frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    /**
     * Create the frame.
     */
    public deletecpu() {
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setBounds(110, 95, 650, 420);
    setResizable(false);

    contentPane = new JPanel();
    contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
    setContentPane(contentPane);
    contentPane.setLayout(null);
    JLabel lblAddBooks = new JLabel("Delete CPU");
    lblAddBooks.setFont(new Font("Courier New", Font.BOLD, 36));
    lblAddBooks.setForeground(Color.BLACK);
    lblAddBooks.setBounds(275, 27, 350, 40);
    contentPane.add(lblAddBooks);

    TextField = new JTextField();
    TextField.setFont(new Font("Tahoma", Font.PLAIN, 18));
    TextField.setBounds(290, 125, 326, 40);
    contentPane.add(TextField);
    TextField.setColumns(10);
```

```
TextField1 = new JTextField();
TextField1.setFont(new Font("Tahoma", Font.PLAIN, 18));
TextField1.setBounds(290, 175, 350, 40);
TextField1.setEditable(false);
contentPane.add(TextField1);
TextField.setColumns(20);



TextField.setText("");
        TextField1.setText("");

    lblmanufacturer = new JLabel("Manufacturer :");
lblmanufacturer.setFont(new Font("Tahoma", Font.PLAIN, 18));
lblmanufacturer.setBounds(45, 125, 326, 40);
contentPane.add(lblmanufacturer);

lblmid = new JLabel("M-ID:");
lblmid.setFont(new Font("Tahoma", Font.PLAIN, 18));
lblmid.setBounds(45, 175, 326, 40);
contentPane.add(lblmid);



         Connection con = mysqlconn.getConnection();

         JButton btnBack = new JButton("Back");
        btnBack.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                frame.dispose();
                cpu.main(new String[]{});
            }});
        btnBack.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnBack.setBackground(new Color(240, 240, 240));
        btnBack.setBounds(450, 300, 130, 50);
        contentPane.add(btnBack);
JButton btnDelete = new JButton("Delete");
btnDelete.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e) {
                        String m=TextField.getText();
                        if(m.equals("")){

 JOptionPane.showMessageDialog(deletecpu.this,"Manufacturer can't be
blank");
                        }else{

                                int i=cpudetails.deletecpu(m);
                                if(i>0){

 JOptionPane.showMessageDialog(deletecpu.this,"CPU deleted successfully!");
```

```
                                    System.out.println("Deleted record of Manufacturer :
"+m);
                              }else{

    JOptionPane.showMessageDialog(deletecpu.this,"Unable to delete given
Manufacturer!");
                              }
                        }
                        TextField.setText("");
                        TextField1.setText("");
                  }
            });
    btnDelete.setFont(new Font("Tahoma", Font.PLAIN, 20));
    btnDelete.setBackground(new Color(240, 240, 240));
    btnDelete.setBounds(300, 300, 130, 50);
    contentPane.add(btnDelete);

    TextField.addKeyListener((KeyListener) new KeyAdapter() {
      //  @Override
        public void keyPressed(KeyEvent e) {
            if(e.getKeyCode() == KeyEvent.VK_ENTER){

             Connection con = mysqlconn.getConnection();

             String m=TextField.getText();
                        if(m.equals("")){

    JOptionPane.showMessageDialog(deletecpu.this,"Manufacturer can't be
blank");
                        }
                        else{


                        if(cpudetails.checkcpu(m)){
             Statement st;
                        try {
                              PreparedStatement stmt = con.prepareStatement("select *
from CPU where manufacturer=?");
                              stmt.setString(1,m);
                              ResultSet rs = stmt.executeQuery();
                              while(rs.next())
                              {       TextField.setText(rs.getString(1));
                  TextField1.setText(Integer.toString(rs.getInt(2)));
                  //TextField2.setText(rs.getString(3));
                  }
                  } catch (SQLException e1) {
                        e1.printStackTrace();
                  }}else {

    JOptionPane.showMessageDialog(deletecpu.this,"Manufacturer is Invalid !!!");
```

```
                    TextField.setText("");
                    TextField1.setText("");
               //   TextField2.setText("");
               }
                    }
          }}});


     JButton btnLoad = new JButton("Load");
     btnLoad.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
             String roll = TextField.getText();

           Connection con = mysqlconn.getConnection();
           if(cpudetails.checkcpu(roll)) {
           Statement st;
                    try {
                         PreparedStatement stmt = con.prepareStatement("select *
from cpu where manufacturer=?");
                         stmt.setString(1,roll);
                         ResultSet rs = stmt.executeQuery();
                         while(rs.next())
                         {      TextField.setText(rs.getString(1));
               TextField1.setText(rs.getString(2));

               }
               } catch (SQLException e1) {
                    e1.printStackTrace();
               }}else {
                    JOptionPane.showMessageDialog(deletecpu.this,"book ID is
Invalid !!!");
                    TextField.setText("");
                    TextField1.setText("");

               }

        }});
     btnLoad.setFont(new Font("Tahoma", Font.PLAIN, 20));
     btnLoad.setBackground(new Color(240, 240, 240));
     btnLoad.setBounds(150, 300, 130, 50);
     contentPane.add(btnLoad);

   }
}
```

4. Update CPU:

```
import java.awt.Color;
import java.awt.EventQueue;
import java.awt.Font;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;

import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JTextField;
import javax.swing.border.EmptyBorder;

public class updatecpu extends JFrame {

   private static final long serialVersionUID = 1L;
   static updatecpu frame;
   private JPanel contentPane;
   private JTextField TextField;
   private JLabel manufacturer;
   private JTextField TextField1;
   private JLabel mid;
   private JTextField TextField2;


   /**
    * Launch the application.
    */
   public static void main(String[] args) {
            EventQueue.invokeLater(new Runnable() {
                  public void run() {
                        try {
                              frame = new updatecpu();
                              frame.setTitle("Modify Manufacturer Info.");
                              frame.setVisible(true);
                        } catch (Exception e) {
                              e.printStackTrace();
                        }
                  }
            });
      }

   /**
    * Create the frame.
    */
```

```
public updatecpu() {
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setBounds(110, 95, 650, 350);
    setResizable(false);

    contentPane = new JPanel();
    contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
    setContentPane(contentPane);
    contentPane.setLayout(null);

    TextField = new JTextField();
    TextField.setFont(new Font("Tahoma", Font.PLAIN, 18));
    TextField.setBounds(290, 37, 326, 40);
    contentPane.add(TextField);
    TextField.setColumns(10);

    TextField1 = new JTextField();
    TextField1.setFont(new Font("Tahoma", Font.PLAIN, 18));
    TextField1.setBounds(290, 87, 326, 40);
    contentPane.add(TextField1);
    TextField.setColumns(10);

    TextField.setText("");
            TextField1.setText("");


             Connection con = mysqlconn.getConnection();

             JButton btnBack = new JButton("Back");
            btnBack.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e) {
                    frame.dispose();
                    cpu.main(new String[]{});
                }});
            btnBack.setFont(new Font("Tahoma", Font.PLAIN, 20));
            btnBack.setBackground(new Color(240, 240, 240));
            btnBack.setBounds(450, 225, 130, 50);
            contentPane.add(btnBack);
    JButton btnSave = new JButton("Save");
    btnSave.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
              String m = TextField.getText();
              int mid;
                    if((TextField1.getText()).equals(""))
                            mid = 0;
                    else
                            mid=Integer.parseInt(TextField1.getText());

                    Connection con = mysqlconn.getConnection();
             if(cpudetails.checkcpu(m)) {
             try {

                PreparedStatement st = con.prepareStatement("Update cpu set mid=?
where manufacturer=?");

                st.setInt(1, mid);
                st.setString(2, m);

                st.executeUpdate();
             System.out.println("Updated Info for Manufacturer : " + m);
                JOptionPane.showMessageDialog(updatecpu.this, "Data Updated
Successfully :)");

             } catch (SQLException sqlException) {
                sqlException.printStackTrace();
             }}
                            else{

    JOptionPane.showMessageDialog(updatecpu.this,"Manufacturer ID is Invalid
!!!");
                            TextField.setText("");
                            TextField1.setText("");
                            TextField2.setText("");
        }


        }
    });
    btnSave.setFont(new Font("Tahoma", Font.PLAIN, 20));
    btnSave.setBackground(new Color(240, 240, 240));
    btnSave.setBounds(300, 225, 130, 50);
    contentPane.add(btnSave);

    manufacturer = new JLabel("Manufacturer : ");
    manufacturer.setFont(new Font("Tahoma", Font.PLAIN, 18));
    manufacturer.setBounds(45, 37, 326, 40);
    contentPane.add(manufacturer);

    mid = new JLabel("M-ID : ");
    mid.setFont(new Font("Tahoma", Font.PLAIN, 18));
    mid.setBounds(45, 87, 326, 40);
    contentPane.add(mid);


    JButton btnLoad = new JButton("Load");
    btnLoad.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
            String m = TextField.getText();
              int mid;
```

```
                    if((TextField1.getText()).equals(""))
                          mid = 0;
                    else
                          mid=Integer.parseInt(TextField1.getText());

                    Connection con = mysqlconn.getConnection();

            if(cpudetails.checkcpu(m)) {
              Statement st;
                          try {
                                PreparedStatement stmt = con.prepareStatement("select *
from cpu where manufacturer=?");
                                stmt.setString(1,m);
                                ResultSet rs = stmt.executeQuery();
                                while(rs.next())
                                {      TextField.setText(rs.getString(1));
                    TextField1.setText(rs.getString(2));
                    }
                    } catch (SQLException e1) {
                          e1.printStackTrace();
                    }}else {

      JOptionPane.showMessageDialog(updatecpu.this,"Manufacturer is Invalid !!!");
                          TextField.setText("");
                          TextField1.setText("");
                    }

          }});
      btnLoad.setFont(new Font("Tahoma", Font.PLAIN, 20));
      btnLoad.setBackground(new Color(240, 240, 240));
      btnLoad.setBounds(150, 225, 130, 50);
      contentPane.add(btnLoad);

   }
}
```

5. View cpu:

```
      import java.awt.BorderLayout;
      import java.awt.EventQueue;
      import java.sql.Connection;
      import java.sql.PreparedStatement;
      import java.sql.ResultSet;
      import java.sql.ResultSetMetaData;

      import javax.swing.JFrame;
      import javax.swing.JPanel;
      import javax.swing.JScrollPane;
      import javax.swing.border.EmptyBorder;
```

```
    import javax.swing.JTable;

    public class viewcpu extends JFrame {

        private JPanel contentPane;
        private JTable table;

        public static void main(String[] args) {
            EventQueue.invokeLater(new Runnable() {
                public void run() {
                    try {
                        viewcpu frame = new viewcpu();
                        frame.setTitle("CPU");
                        frame.setVisible(true);
                    } catch (Exception e) {
                        e.printStackTrace();
                    }
                }
            });
        }

        /**
         * Create the frame.
         */
        public viewcpu() {
            setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
            setBounds(100, 100, 450, 300);
            contentPane = new JPanel();
            contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
            contentPane.setLayout(new BorderLayout(0, 0));
            setContentPane(contentPane);

            String data[][]=null;
            String column[]=null;
            try{
                Connection con=mysqlconn.getConnection();
                PreparedStatement ps=con.prepareStatement("select * from
cpu",ResultSet.TYPE_SCROLL_SENSITIVE,ResultSet.CONCUR_UPDATABLE);
                ResultSet rs=ps.executeQuery();

                ResultSetMetaData rsmd=rs.getMetaData();
                int cols=rsmd.getColumnCount();
                column=new String[cols];
                for(int i=1;i<=cols;i++){
                    column[i-1]=rsmd.getColumnName(i);
                }

                rs.last();
                int rows=rs.getRow();
                rs.beforeFirst();
```

```
                        data=new String[rows][cols];
                        int count=0;
                        while(rs.next()){
                                for(int i=1;i<=cols;i++){
                                        data[count][i-1]=rs.getString(i);
                                }
                                count++;
                        }
                        con.close();
                }catch(Exception e){System.out.println(e);}

                table = new JTable(data,column);
                table.setDefaultEditor(Object.class, null);
                JScrollPane sp=new JScrollPane(table);

                contentPane.add(sp, BorderLayout.CENTER);
        }

}
```

6.CPU:

```
import java.awt.EventQueue;
import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel;
import java.awt.Font;
import java.awt.Color;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

public class cpu extends JFrame {
        private static final long serialVersionUID = 1L;
        static cpu frame;
        private JPanel contentPane;

        /**
         * Launch the application.
         */
        public static void main(String[] args) {
                EventQueue.invokeLater(new Runnable() {
                        public void run() {
                                try {
                                        frame = new cpu();
```

```
                    frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    /**
     * Create the frame.
     */
    public cpu() {
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setBounds(100, 100, 450, 433);
        contentPane = new JPanel();
        contentPane.setForeground(Color.GRAY);
        contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
        setContentPane(contentPane);

        JLabel lblSection = new JLabel("CPU Information");
        lblSection.setFont(new Font("Tahoma", Font.PLAIN, 22));

        JButton btnSAdd = new JButton("Add CPU");
        btnSAdd.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
            addcpu.main(new String[]{});
            frame.dispose();
            }
        });
        btnSAdd.setFont(new Font("Tahoma", Font.PLAIN, 13));

        JButton btnSUpdate = new JButton("Modify CPU Details");
        btnSUpdate.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent arg0) {
                updatecpu.main(new String[]{});
                frame.dispose();
            }
        });
        btnSUpdate.setFont(new Font("Tahoma", Font.PLAIN, 13));

        JButton btnSDelete = new JButton("Delete CPU");
        btnSDelete.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
            deletecpu.main(new String[]{});
                frame.dispose();
            }
        });
        btnSDelete.setFont(new Font("Tahoma", Font.PLAIN, 13));

        JButton btnView = new JButton("View All CPU's");
```

```
		btnView.addActionListener(new ActionListener() {
			public void actionPerformed(ActionEvent e) {
				viewcpu.main(new String[]{});

			}
		});
		btnView.setFont(new Font("Tahoma", Font.PLAIN, 13));

		JButton btnBack = new JButton("Back");
		btnBack.addActionListener(new ActionListener() {
			public void actionPerformed(ActionEvent e) {
			menu.main(new String[]{});
				frame.dispose();
			}
		});
		btnBack.setFont(new Font("Tahoma", Font.PLAIN, 13));

		GroupLayout gl_contentPane = new GroupLayout(contentPane);
		gl_contentPane.setHorizontalGroup(
			gl_contentPane.createParallelGroup(Alignment.LEADING)
				.addGroup(Alignment.TRAILING,
gl_contentPane.createSequentialGroup()
					.addContainerGap(81, Short.MAX_VALUE)
					.addComponent(lblSection)
					.addGap(54))
				.addGroup(gl_contentPane.createSequentialGroup()
					.addGap(132)

	.addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)
						.addComponent(btnBack,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
						.addComponent(btnView,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
						.addComponent(btnSDelete,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
						.addComponent(btnSUpdate,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
						.addComponent(btnSAdd,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE))
					.addContainerGap(101, Short.MAX_VALUE))
		);
		gl_contentPane.setVerticalGroup(
			gl_contentPane.createParallelGroup(Alignment.LEADING)
				.addGroup(gl_contentPane.createSequentialGroup()
					.addContainerGap()
					.addComponent(lblSection)
					.addGap(18)
					.addComponent(btnSAdd,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
					.addGap(18)
```

```
                    .addComponent(btnSUpdate,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                    .addGap(18)
                    .addComponent(btnSDelete,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                    .addGap(18)
                    .addComponent(btnView,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                    .addGap(18)
                    .addComponent(btnBack,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                    .addContainerGap(16, Short.MAX_VALUE))
        );
        contentPane.setLayout(gl_contentPane);
    }

}
```

<u>Chasis Table:</u>

1.Chasis Details:

```
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;

public class chasisdetails {
    public static boolean checkchasis(String manufacturer){
        boolean stat=false;
        try{
            Connection con=mysqlconn.getConnection();
            PreparedStatement ps=con.prepareStatement("select * from chasis
where manufacturer=?");
            ps.setString(1,manufacturer);
          ResultSet rs=ps.executeQuery();
            stat=rs.next();
            con.close();
        }catch(Exception e){System.out.println(e);}
        return stat;
    }
    public static int insertchasis(String manufacturer,int l,int w,int weight){
        int status=0;
        try{
            Connection con=mysqlconn.getConnection();
            PreparedStatement ps=con.prepareStatement("insert into
chasis(manufacturer,length_in_cm,width_in_cm,weight_in_kg) values(?,?,?,?)");
            ps.setString(1,manufacturer);
            ps.setInt(2,l);
				ps.setInt(3,w);
				ps.setInt(4,weight);
				status=ps.executeUpdate();
				con.close();
			}catch(Exception e){System.out.println(e);}
			return status;
		}
		public static int deletechasis(String manufacturer){
			int status=0;
			try{
				Connection con=mysqlconn.getConnection();
				PreparedStatement ps=con.prepareStatement("delete from chasis
where manufacturer=?");
				ps.setString(1,manufacturer);
				status=ps.executeUpdate();
				con.close();
			}catch(Exception e){System.out.println(e);}
			return status;
		}

}
```

2.Add Chasis:

```
import java.awt.EventQueue;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.JLabel;
import javax.swing.JOptionPane;

import java.awt.Font;
import java.awt.Color;
import javax.swing.JTextField;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

public class addchasis extends JFrame {
	private static final long serialVersionUID = 1L;
	static addchasis frame;
	private JPanel contentPane;
	private JTextField TextField;
	private JTextField TextField_1;
	private JTextField TextField_2;
	private JTextField TextField_3;
```

```
/**
 * Launch the application.
 */
public static void main(String[] args) {
    EventQueue.invokeLater(new Runnable() {
        public void run() {
            try {
                frame = new addchasis();
                frame.setTitle("Chasis");
                frame.setVisible(true);
            } catch (Exception e) {
                e.printStackTrace();
            }
        }
    });
}

/**
 * Create the frame.
 */
public addchasis() {
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setBounds(110, 95, 650, 400);
setResizable(false);

contentPane = new JPanel();
contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
setContentPane(contentPane);
contentPane.setLayout(null);

TextField = new JTextField();
TextField.setFont(new Font("Tahoma", Font.PLAIN, 18));
TextField.setBounds(290, 125, 326, 40);
contentPane.add(TextField);
TextField.setColumns(10);

TextField_1 = new JTextField();
TextField_1.setFont(new Font("Tahoma", Font.PLAIN, 18));
TextField_1.setBounds(290, 175, 326, 40);
contentPane.add(TextField_1);
TextField_1.setColumns(10);

TextField_2 = new JTextField();
TextField_2.setFont(new Font("Tahoma", Font.PLAIN, 18));
TextField_2.setBounds(290, 225, 326, 40);
contentPane.add(TextField_2);
TextField_2.setColumns(10);

TextField_3 = new JTextField();
TextField_3.setFont(new Font("Tahoma", Font.PLAIN, 18));
```

```
TextField_3.setBounds(290, 275, 326, 40);
contentPane.add(TextField_3);
TextField_3.setColumns(10);

TextField.setText("");
        TextField_1.setText("");
        TextField_2.setText("");
        TextField_3.setText("");

        JLabel lbladdchasiss = new JLabel("Chasis");
lbladdchasiss.setFont(new Font("Courier New", Font.BOLD, 36));
lbladdchasiss.setForeground(Color.BLACK);
lbladdchasiss.setBounds(275, 27, 200, 40);
contentPane.add(lbladdchasiss);

        JLabel lblmanu = new JLabel("Manufacturer :");
lblmanu.setFont(new Font("Big Calson", Font.PLAIN, 18));
lblmanu.setBounds(45, 125, 326, 40);
contentPane.add(lblmanu);

        JLabel lbllength = new JLabel("Length(cm) :");
lbllength.setFont(new Font("Freestyle Script", Font.PLAIN, 18));
lbllength.setBounds(45, 175, 410, 40);
contentPane.add(lbllength);

        JLabel lblwidth = new JLabel("Width(cm) :");
lblwidth.setFont(new Font("Tahoma", Font.PLAIN, 18));
lblwidth.setBounds(45, 225, 470, 40);
contentPane.add(lblwidth);

JLabel lblweight = new JLabel("Weight(kg) :");
lblweight.setFont(new Font("Tahoma", Font.PLAIN, 18));
lblweight.setBounds(45, 275, 510, 40);
contentPane.add(lblweight);

        JButton btnaddchasiss = new JButton("Submit");
        btnaddchasiss.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e) {
                String m=TextField.getText();

                int l;
                int  w;
                int weight;

                if((TextField_1.getText()).equals(""))
                        l = 0;
                else
                        l=Integer.parseInt(TextField_1.getText());

                if((TextField_2.getText()).equals(""))
```

```
                    w = 0;
                else
                    w=Integer.parseInt(TextField_2.getText());

                if((TextField_3.getText()).equals(""))
                    weight = 0;
                else
                    weight=Integer.parseInt(TextField_3.getText());

                if(m.equals("") || l==0 || w==0 || weight==0 ) {
                    JOptionPane.showMessageDialog(addchasis.this,"Unknown
Error !!!\n TextField Cannot be Blank");
                }
                else {
                if(chasisdetails.checkchasis(m)) {
                    JOptionPane.showMessageDialog(addchasis.this,"Details with
Same Manufacture is present already\nInserton Failed !!!");
                }
                else {
                int i=chasisdetails.insertchasis(m,l,w,weight);
                if(i>0){
                    JOptionPane.showMessageDialog(addchasis.this,"Details
added successfully!");
                }else{
                    JOptionPane.showMessageDialog(addchasis.this,"Unknown
Error !!!\nInsertion not completed");
                }
                }
                }
                }
            });
            btnaddchasiss.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnaddchasiss.setBackground(new Color(0,0, 0));
        btnaddchasiss.setBounds(300, 315, 130, 50);
        contentPane.add(btnaddchasiss);


            JButton btnBack = new JButton("Back");
            btnBack.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e1) {
                    chasis.main(new String[]{});
                    frame.dispose();
                }
                });
             btnBack.setFont(new Font("Tahoma", Font.PLAIN, 20));
            btnBack.setBackground(new Color(240, 240, 240));
            btnBack.setBounds(450, 315, 130, 50);
            contentPane.add(btnBack);
        }
```

```
}
```

3.Delete Chasis:

```
import java.awt.BorderLayout;
import java.awt.Color;
import java.awt.EventQueue;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JTextField;
import javax.swing.JButton;
import java.awt.Font;
import java.awt.event.ActionListener;
import java.awt.event.KeyAdapter;
import java.awt.event.KeyEvent;
import java.awt.event.KeyListener;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import java.awt.event.ActionEvent;

public class deletechasis extends JFrame {
	private static final long serialVersionUID = 1L;
	static deletechasis frame;
	private JPanel contentPane;
    private JTextField TextField;
    private JLabel manufacturer;
    private JTextField TextField1;
    private JLabel l;
    private JTextField TextField2;
    private JLabel w;
    private JTextField TextField3;
    private JLabel weight;

	/**
	 * Launch the application.
	 */
	public static void main(String[] args) {
		EventQueue.invokeLater(new Runnable() {
			public void run() {
				try {
					frame = new deletechasis();
```

```
                        frame.setTitle("Delete Chasis");
                        frame.setVisible(true);
                    } catch (Exception e) {
                        e.printStackTrace();
                    }
                }
            });
        }

        /**
         * Create the frame.
         */
        public deletechasis() {
            setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setBounds(110, 95, 650, 420);
        setResizable(false);

        contentPane = new JPanel();
        contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
        setContentPane(contentPane);
        contentPane.setLayout(null);
        JLabel lbladdchasis = new JLabel("Delete Chasis");
        lbladdchasis.setFont(new Font("Courier New", Font.BOLD, 36));
        lbladdchasis.setForeground(Color.BLACK);
        lbladdchasis.setBounds(275, 27, 350, 40);
        contentPane.add(lbladdchasis);

        TextField = new JTextField();
        TextField.setFont(new Font("Tahoma", Font.PLAIN, 18));
        TextField.setBounds(290, 125, 326, 40);
        contentPane.add(TextField);
        TextField.setColumns(10);

        TextField1 = new JTextField();
        TextField1.setFont(new Font("Tahoma", Font.PLAIN, 18));
        TextField1.setBounds(290, 175, 350, 40);
        TextField1.setEditable(false);
        contentPane.add(TextField1);
        TextField.setColumns(20);

        TextField2 = new JTextField();
        TextField2.setFont(new Font("Tahoma", Font.PLAIN, 18));
        TextField2.setBounds(290, 225, 350, 40);
        contentPane.add(TextField2);
        TextField2.setEditable(false);
        TextField.setColumns(20);

        TextField3 = new JTextField();
        TextField3.setFont(new Font("Tahoma", Font.PLAIN, 18));
        TextField3.setBounds(290, 275, 350, 40);
        contentPane.add(TextField3);
        TextField3.setEditable(false);
        TextField.setColumns(20);

        TextField.setText("");
                TextField1.setText("");
                TextField2.setText("");
                TextField3.setText("");

            manufacturer = new JLabel("Manufacturer :");
        manufacturer.setFont(new Font("Tahoma", Font.PLAIN, 18));
        manufacturer.setBounds(45, 125, 326, 40);
        contentPane.add(manufacturer);

        l = new JLabel("Length(cm) :");
        l.setFont(new Font("Tahoma", Font.PLAIN, 18));
        l.setBounds(45, 175, 326, 40);
        contentPane.add(l);

        w = new JLabel("Width(cm) :");
        w.setFont(new Font("Tahoma", Font.PLAIN, 18));
        w.setBounds(45, 225, 326, 40);
        contentPane.add(w);

        weight = new JLabel("Weight(kg) :");
        weight.setFont(new Font("Tahoma", Font.PLAIN, 18));
        weight.setBounds(45, 275, 326, 40);
        contentPane.add(weight);

                 Connection con = mysqlconn.getConnection();

                 JButton btnBack = new JButton("Back");
                btnBack.addActionListener(new ActionListener() {
                    public void actionPerformed(ActionEvent e) {
                        frame.dispose();
                        chasis.main(new String[]{});
                    }});
                btnBack.setFont(new Font("Tahoma", Font.PLAIN, 20));
                btnBack.setBackground(new Color(240, 240, 240));
                btnBack.setBounds(450, 315, 130, 50);
                contentPane.add(btnBack);
        JButton btnDelete = new JButton("Delete");
        btnDelete.addActionListener(new ActionListener() {
                        public void actionPerformed(ActionEvent e) {
                                String manufacturer=TextField.getText();
                                if(manufacturer==null||manufacturer.trim().equals("")){

        JOptionPane.showMessageDialog(deletechasis.this,"Manufacturer can't be
blank");
                                }else{
                                        int i=chasisdetails.deletechasis(manufacturer);
                                        if(i>0){

        JOptionPane.showMessageDialog(deletechasis.this,"Chasis deleted
successfully!");
                                                System.out.println("Deleted Chasis of Manufacturer :
"+manufacturer);
                                        }else{

        JOptionPane.showMessageDialog(deletechasis.this,"Unable to delete given
Manufacturer!");
                                        }
                                }
                                TextField.setText("");
                                TextField1.setText("");
                                TextField2.setText("");
                                TextField3.setText("");

                        }
                });
        btnDelete.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnDelete.setBackground(new Color(240, 240, 240));
        btnDelete.setBounds(300, 315, 130, 50);
        contentPane.add(btnDelete);

        TextField.addKeyListener((KeyListener) new KeyAdapter() {
           @Override
           public void keyPressed(KeyEvent e) {
              if(e.getKeyCode() == KeyEvent.VK_ENTER){
               String manufacturer = TextField.getText();

               Connection con = mysqlconn.getConnection();
               if(chasisdetails.checkchasis(manufacturer)) {
               Statement st;
                                try {
                                        PreparedStatement stmt = con.prepareStatement("select *
from chasis where manufacturer=?");
                                        stmt.setString(1,manufacturer);
                                        ResultSet rs = stmt.executeQuery();
                                        while(rs.next())
                                        {       TextField.setText(rs.getString(1));
                        TextField1.setText(rs.getString(2));
                        TextField2.setText(rs.getString(3));
                        TextField3.setText(rs.getString(4));

                        }
                        } catch (SQLException e1) {
                                e1.printStackTrace();
                        }}else {
```

```
        JOptionPane.showMessageDialog(deletechasis.this,"Manufacturer is Invalid
!!!");
                            TextField.setText("");
                            TextField1.setText("");
                            TextField2.setText("");
                            TextField3.setText("");

                        }

                }}});


        JButton btnLoad = new JButton("Load");
        btnLoad.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                String manufacturer = TextField.getText();

                Connection con = mysqlconn.getConnection();
                if(chasisdetails.checkchasis(manufacturer)) {
                Statement st;
                            try {
                                PreparedStatement stmt = con.prepareStatement("select *
from chasis where manufacturer=?");
                                stmt.setString(1,manufacturer);
                                ResultSet rs = stmt.executeQuery();
                                while(rs.next())
                                {       TextField.setText(rs.getString(1));
                        TextField1.setText(rs.getString(2));
                        TextField2.setText(rs.getString(3));
                        TextField3.setText(rs.getString(4));


                        }
                        } catch (SQLException e1) {
                            e1.printStackTrace();
                        }}else {

        JOptionPane.showMessageDialog(deletechasis.this,"Manufacturer is Invalid
!!!");
                            TextField.setText("");
                            TextField1.setText("");
                            TextField2.setText("");
                            TextField3.setText("");

                        }

            }});
        btnLoad.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnLoad.setBackground(new Color(240, 240, 240));
        btnLoad.setBounds(150, 315, 130, 50);
        contentPane.add(btnLoad);

    }
}
```

4.Update chasis:

```
import java.awt.Color;

import java.awt.EventQueue;
import java.awt.Font;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;

import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JTextField;
import javax.swing.border.EmptyBorder;

public class updatechasis extends JFrame {

    private static final long serialVersionUID = 1L;
    static updatechasis frame;
    private JPanel contentPane;
    private JTextField TextField;
    private JLabel manufacturer;
    private JTextField TextField1;
    private JLabel l;
    private JTextField TextField2;
    private JLabel w;
    private JTextField TextField3;
    private JLabel weight;



    /**
     * Launch the application.
     */
    public static void main(String[] args) {
          EventQueue.invokeLater(new Runnable() {
              public void run() {
                  try {
                      frame = new updatechasis();
                      frame.setTitle("Modify Chasis");
                      frame.setVisible(true);
                  } catch (Exception e) {
                      e.printStackTrace();
                  }
              }
          });
      }

    /**
     * Create the frame.
     */
    public updatechasis() {
      setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
      setBounds(110, 95, 650, 350);
      setResizable(false);

      contentPane = new JPanel();
      contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
      setContentPane(contentPane);
      contentPane.setLayout(null);

      TextField = new JTextField();
      TextField.setFont(new Font("Tahoma", Font.PLAIN, 18));
      TextField.setBounds(290, 37, 326, 40);
      contentPane.add(TextField);
      TextField.setColumns(10);

      TextField1 = new JTextField();
      TextField1.setFont(new Font("Tahoma", Font.PLAIN, 18));
      TextField1.setBounds(290, 87, 326, 40);
      contentPane.add(TextField1);
      TextField1.setColumns(10);

      TextField2 = new JTextField();
      TextField2.setFont(new Font("Tahoma", Font.PLAIN, 18));
      TextField2.setBounds(290, 137, 326, 40);
      contentPane.add(TextField2);
      TextField2.setColumns(10);

      TextField3 = new JTextField();
      TextField3.setFont(new Font("Tahoma", Font.PLAIN, 18));
      TextField3.setBounds(290, 187, 326, 40);
      contentPane.add(TextField3);
      TextField3.setColumns(10);
```

```
        TextField.setText("");
            TextField1.setText("");
            TextField2.setText("");
            TextField3.setText("");



             Connection con = mysqlconn.getConnection();

             JButton btnBack = new JButton("Back");
            btnBack.addActionListener(new ActionListener() {
               public void actionPerformed(ActionEvent e) {
                   frame.dispose();
                   chasis.main(new String[]{});
               }});
            btnBack.setFont(new Font("Tahoma", Font.PLAIN, 20));
            btnBack.setBackground(new Color(240, 240, 240));
            btnBack.setBounds(450, 225, 130, 50);
            contentPane.add(btnBack);
        JButton btnSave = new JButton("Save");
        btnSave.addActionListener(new ActionListener() {
           public void actionPerformed(ActionEvent e) {
              String m = TextField.getText();

              int l;
              int w;
              int weight;
                   if((TextField1.getText()).equals(""))
                          l = 0;
                   else
                          l=Integer.parseInt(TextField1.getText());

                   if((TextField2.getText()).equals(""))
                          w = 0;
                   else
                          w=Integer.parseInt(TextField2.getText());

                   if((TextField3.getText()).equals(""))
                          weight = 0;
                   else
                          weight=Integer.parseInt(TextField3.getText());

                   Connection con = mysqlconn.getConnection();

            if(chasisdetails.checkchasis(m)) {
            try {

                PreparedStatement st = con.prepareStatement("Update chasis set
length_in_cm=?,width_in_cm=?,weight_in_kg=? where manufacturer=?");
```

```
                st.setInt(1, l);
                st.setInt(2, w);
                st.setInt(3, weight);

                st.setString(4, m);

                st.executeUpdate();
               System.out.println("Updated Info for Manufacturer : " + m);
                JOptionPane.showMessageDialog(updatechasis.this, "Data Updated
Successfully :)");

              } catch (SQLException sqlException) {
                sqlException.printStackTrace();
              }}
                        else{

      JOptionPane.showMessageDialog(updatechasis.this,"Manufacturer ID is
Invalid !!!");
                        TextField.setText("");
                        TextField1.setText("");
                        TextField2.setText("");
                        TextField3.setText("");

            }


            }
        });
        btnSave.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnSave.setBackground(new Color(240, 240, 240));
        btnSave.setBounds(300, 225, 130, 50);
        contentPane.add(btnSave);

        manufacturer = new JLabel("Manufacturer : ");
        manufacturer.setFont(new Font("Tahoma", Font.PLAIN, 18));
        manufacturer.setBounds(45, 37, 326, 40);
        contentPane.add(manufacturer);

        l = new JLabel("Length(cm) : ");
        l.setFont(new Font("Tahoma", Font.PLAIN, 18));
        l.setBounds(45, 87, 326, 40);
        contentPane.add(l);

        w = new JLabel("Width(cm) : ");
        w.setFont(new Font("Tahoma", Font.PLAIN, 18));
        w.setBounds(45, 137, 326, 40);
        contentPane.add(w);

        weight = new JLabel("Weight(kg) : ");
        weight.setFont(new Font("Tahoma", Font.PLAIN, 18));
        weight.setBounds(45, 187, 326, 40);
        contentPane.add(weight);


        JButton btnLoad = new JButton("Load");
        btnLoad.addActionListener(new ActionListener() {
           public void actionPerformed(ActionEvent e) {
               String m = TextField.getText();
                 int l;
                 int w;
                 int weight;

                       if((TextField1.getText()).equals(""))
                              l = 0;
                       else
                              l=Integer.parseInt(TextField1.getText());

                       if((TextField2.getText()).equals(""))
                              w = 0;
                       else
                              w=Integer.parseInt(TextField2.getText());

                       if((TextField3.getText()).equals(""))
                              weight = 0;
                       else
                              weight=Integer.parseInt(TextField3.getText());

                       Connection con = mysqlconn.getConnection();

             if(chasisdetails.checkchasis(m)) {
               Statement st;
                              try {
                                     PreparedStatement stmt = con.prepareStatement("select *
from chasis where manufacturer=?");
                                     stmt.setString(1,m);
                                     ResultSet rs = stmt.executeQuery();
                                     while(rs.next())
                                     {       TextField.setText(rs.getString(1));
                       TextField1.setText(rs.getString(2));
                       TextField2.setText(rs.getString(3));
                       TextField3.setText(rs.getString(4));

                       }
                       } catch (SQLException e1) {
                              e1.printStackTrace();
                       }}else {

        JOptionPane.showMessageDialog(updatechasis.this,"Manufacturer is Invalid
!!!");
                              TextField.setText("");
```

```
                        TextField1.setText("");
                        TextField2.setText("");
                        TextField3.setText("");

                    }

            }});
        btnLoad.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnLoad.setBackground(new Color(240, 240, 240));
        btnLoad.setBounds(150, 225, 130, 50);
        contentPane.add(btnLoad);

    }
}
```

5.View Chasis:

```
import java.awt.BorderLayout;
import java.awt.EventQueue;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.JScrollPane;
import javax.swing.border.EmptyBorder;
import javax.swing.JTable;

public class viewchasis extends JFrame {

    private JPanel contentPane;
    private JTable table;

    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    viewchasis frame = new viewchasis();
                    frame.setTitle("Chasis");
                    frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }
```

```
        /**
         * Create the frame.
         */
        public viewchasis() {
            setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
            setBounds(100, 100, 450, 300);
            contentPane = new JPanel();
            contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
            contentPane.setLayout(new BorderLayout(0, 0));
            setContentPane(contentPane);

            String data[][]=null;
            String column[]=null;
            try{
                Connection con=mysqlconn.getConnection();
                PreparedStatement ps=con.prepareStatement("select * from
chasis",ResultSet.TYPE_SCROLL_SENSITIVE,ResultSet.CONCUR_UPDATABLE);
                ResultSet rs=ps.executeQuery();

                ResultSetMetaData rsmd=rs.getMetaData();
                int cols=rsmd.getColumnCount();
                column=new String[cols];
                for(int i=1;i<=cols;i++){
                    column[i-1]=rsmd.getColumnName(i);
                }

                rs.last();
                int rows=rs.getRow();
                rs.beforeFirst();

                data=new String[rows][cols];
                int count=0;
                while(rs.next()){
                    for(int i=1;i<=cols;i++){
                        data[count][i-1]=rs.getString(i);
                    }
                    count++;
                }
                con.close();
            }catch(Exception e){System.out.println(e);}

            table = new JTable(data,column);
            table.setDefaultEditor(Object.class, null);
            JScrollPane sp=new JScrollPane(table);

            contentPane.add(sp, BorderLayout.CENTER);
        }

    }
```

6.Chasis:

```
import java.awt.EventQueue;
import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel;
import java.awt.Font;
import java.awt.Color;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

public class chasis extends JFrame {
	private static final long serialVersionUID = 1L;
	static chasis frame;
	private JPanel contentPane;

	/**
	 * Launch the application.
	 */
	public static void main(String[] args) {
		EventQueue.invokeLater(new Runnable() {
			public void run() {
				try {
					frame = new chasis();
					frame.setVisible(true);
				} catch (Exception e) {
					e.printStackTrace();
				}
			}
		});
	}

	/**
	 * Create the frame.
	 */
	public chasis() {
```

```
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setBounds(100, 100, 450, 433);
contentPane = new JPanel();
contentPane.setForeground(Color.GRAY);
contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
setContentPane(contentPane);

JLabel lblSection = new JLabel("Chasis:");
lblSection.setFont(new Font("Tahoma", Font.PLAIN, 22));

JButton btnSAdd = new JButton("Add chasis");
btnSAdd.addActionListener(new ActionListener() {
	public void actionPerformed(ActionEvent e) {
	addchasis.main(new String[]{});
	frame.dispose();
	}
});
btnSAdd.setFont(new Font("Tahoma", Font.PLAIN, 13));

JButton btnSUpdate = new JButton("Modify chasis Details");
btnSUpdate.addActionListener(new ActionListener() {
	public void actionPerformed(ActionEvent arg0) {
		updatechasis.main(new String[]{});
		frame.dispose();
	}
});
btnSUpdate.setFont(new Font("Tahoma", Font.PLAIN, 13));

JButton btnSDelete = new JButton("Delete chasis");
btnSDelete.addActionListener(new ActionListener() {
	public void actionPerformed(ActionEvent e) {
	deletechasis.main(new String[]{});
		frame.dispose();
	}
});
btnSDelete.setFont(new Font("Tahoma", Font.PLAIN, 13));

JButton btnView = new JButton("View All Chasis's");
btnView.addActionListener(new ActionListener() {
	public void actionPerformed(ActionEvent e) {
		viewchasis.main(new String[]{});

	}
});
btnView.setFont(new Font("Tahoma", Font.PLAIN, 13));

JButton btnBack = new JButton("Back");
btnBack.addActionListener(new ActionListener() {
	public void actionPerformed(ActionEvent e) {
	menu.main(new String[]{});
```

```
                        frame.dispose();
                    }
                });
                btnBack.setFont(new Font("Tahoma", Font.PLAIN, 13));

                GroupLayout gl_contentPane = new GroupLayout(contentPane);
                gl_contentPane.setHorizontalGroup(
                    gl_contentPane.createParallelGroup(Alignment.LEADING)
                        .addGroup(Alignment.TRAILING,
        gl_contentPane.createSequentialGroup()
                            .addContainerGap(81, Short.MAX_VALUE)
                            .addComponent(lblSection)
                            .addGap(54))
                        .addGroup(gl_contentPane.createSequentialGroup()
                            .addGap(132)

            .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)
                                .addComponent(btnBack,
        GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
                                .addComponent(btnView,
        GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
                                .addComponent(btnSDelete,
        GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
                                .addComponent(btnSUpdate,
        GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
                                .addComponent(btnSAdd,
        GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE))
                            .addContainerGap(101, Short.MAX_VALUE))
                );
                gl_contentPane.setVerticalGroup(
                    gl_contentPane.createParallelGroup(Alignment.LEADING)
                        .addGroup(gl_contentPane.createSequentialGroup()
                            .addContainerGap()
                            .addComponent(lblSection)
                            .addGap(18)
                            .addComponent(btnSAdd,
        GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                            .addGap(18)
                            .addComponent(btnSUpdate,
        GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                            .addGap(18)
                            .addComponent(btnSDelete,
        GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                            .addGap(18)
                            .addComponent(btnView,
        GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                            .addGap(18)
                            .addComponent(btnBack,
        GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                            .addContainerGap(16, Short.MAX_VALUE))
                );
                contentPane.setLayout(gl_contentPane);
        }

}
```

Memory Table:

1.Memory details:

```
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;

public class memorydetails {
        public static boolean checkmemory(String manufacturer){
                boolean stat=false;
                try{
                        Connection con=mysqlconn.getConnection();
                        PreparedStatement ps=con.prepareStatement("select * from
memory where manufacturer=?");
                        ps.setString(1,manufacturer);
                    ResultSet rs=ps.executeQuery();
                        stat=rs.next();
                        con.close();
                }catch(Exception e){System.out.println(e);}
                return stat;
        }
        public static int insertmemory(String manufacturer,int ram,int hd){
                int status=0;
                try{
                        Connection con=mysqlconn.getConnection();
                        PreparedStatement ps=con.prepareStatement("insert into
memory(manufacturer,capof_ram_in_gb,capof_hardd_in_gb) values(?,?,?)");
                        ps.setString(1,manufacturer);
                ps.setInt(2,ram);
                ps.setInt(3,hd);
                status=ps.executeUpdate();
                con.close();
            }catch(Exception e){System.out.println(e);}
            return status;
        }
        public static int deletememory(String manufacturer){
            int status=0;
            try{
                Connection con=mysqlconn.getConnection();
                PreparedStatement ps=con.prepareStatement("delete from memory
where manufacturer=?");
                ps.setString(1,manufacturer);
                status=ps.executeUpdate();
                con.close();
            }catch(Exception e){System.out.println(e);}
            return status;
        }

}
```

2.Add memory:

```
import java.awt.EventQueue;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.JLabel;
import javax.swing.JOptionPane;

import java.awt.Font;
import java.awt.Color;
import javax.swing.JTextField;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

public class addmemory extends JFrame {
        private static final long serialVersionUID = 1L;
        static addmemory frame;
        private JPanel contentPane;
        private JTextField TextField;
        private JTextField TextField_1;
        private JTextField TextField_2;
```

```
/**
 * Launch the application.
 */
public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
                public void run() {
                        try {
                                frame = new addmemory();
                                frame.setTitle("Add Memory");
                                frame.setVisible(true);
                        } catch (Exception e) {
                                e.printStackTrace();
                        }
                }
        });
}

/**
 * Create the frame.
 */
public addmemory() {
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setBounds(110, 95, 650, 400);
setResizable(false);

contentPane = new JPanel();
contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
setContentPane(contentPane);
contentPane.setLayout(null);

TextField = new JTextField();
TextField.setFont(new Font("Tahoma", Font.PLAIN, 18));
TextField.setBounds(290, 125, 326, 40);
contentPane.add(TextField);
TextField.setColumns(10);

TextField_1 = new JTextField();
TextField_1.setFont(new Font("Tahoma", Font.PLAIN, 18));
TextField_1.setBounds(290, 175, 326, 40);
contentPane.add(TextField_1);
TextField_1.setColumns(10);

TextField_2 = new JTextField();
TextField_2.setFont(new Font("Tahoma", Font.PLAIN, 18));
TextField_2.setBounds(290, 225, 326, 40);
contentPane.add(TextField_2);
TextField_2.setColumns(10);
```

```
        TextField.setText("");
                TextField_1.setText("");
                TextField_2.setText("");

                JLabel lbladdmemorys = new JLabel("Add Memory");
        lbladdmemorys.setFont(new Font("Courier New", Font.BOLD, 36));
        lbladdmemorys.setForeground(Color.BLACK);
        lbladdmemorys.setBounds(275, 27, 350, 40);
        contentPane.add(lbladdmemorys);

                JLabel lblmanu = new JLabel("Manufacturer :");
        lblmanu.setFont(new Font("Big Calson", Font.PLAIN, 18));
        lblmanu.setBounds(45, 125, 326, 40);
        contentPane.add(lblmanu);

                JLabel lblram = new JLabel("Capof.RAM(gb) :");
        lblram.setFont(new Font("Freestyle Script", Font.PLAIN, 18));
        lblram.setBounds(45, 175, 410, 40);
        contentPane.add(lblram);

                JLabel lblhd = new JLabel("Capof.HardD(gb) :");
        lblhd.setFont(new Font("Tahoma", Font.PLAIN, 18));
        lblhd.setBounds(45, 225, 470, 40);
        contentPane.add(lblhd);



                JButton btnaddmemorys = new JButton("Submit");
                btnaddmemorys.addActionListener(new ActionListener() {
                        public void actionPerformed(ActionEvent e) {
                        String m=TextField.getText();

                        int ram;
                        int  hd;

                        if((TextField_1.getText()).equals(""))
                                ram = 0;
                        else
                                ram=Integer.parseInt(TextField_1.getText());

                        if((TextField_2.getText()).equals(""))
                                hd = 0;
                        else
                                hd=Integer.parseInt(TextField_2.getText());



                        if(m.equals("") || ram==0 || hd==0) {
                                JOptionPane.showMessageDialog(addmemory.this,"Unknown
Error !!!\n TextField Cannot be Blank");
```

```
            }
            else {
            if(memorydetails.checkmemory(m)) {
                JOptionPane.showMessageDialog(addmemory.this,"Details
with Same Manufacture is present already\nInserton Failed !!!");
            }
            else {
            int i=memorydetails.insertmemory(m,ram,hd);
            if(i>0){
                JOptionPane.showMessageDialog(addmemory.this,"Details
added successfully!");
            }else{
                JOptionPane.showMessageDialog(addmemory.this,"Unknown
Error !!!\nInsertion not completed");
            }
            }
            }
            }
        });
        btnaddmemorys.setFont(new Font("Tahoma", Font.PLAIN, 20));
    btnaddmemorys.setBackground(new Color(0,0, 0));
    btnaddmemorys.setBounds(300, 315, 130, 50);
    contentPane.add(btnaddmemorys);


        JButton btnBack = new JButton("Back");
        btnBack.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e1) {
                memory.main(new String[]{});
                frame.dispose();
            }
            });
         btnBack.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnBack.setBackground(new Color(240, 240, 240));
        btnBack.setBounds(450, 315, 130, 50);
        contentPane.add(btnBack);
    }

}
```

3.Delete Memory:

```
import java.awt.BorderLayout;
import java.awt.Color;
import java.awt.EventQueue;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JTextField;
import javax.swing.JButton;
import java.awt.Font;
import java.awt.event.ActionListener;
import java.awt.event.KeyAdapter;
import java.awt.event.KeyEvent;
import java.awt.event.KeyListener;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import java.awt.event.ActionEvent;

public class deletememory extends JFrame {
	private static final long serialVersionUID = 1L;
	static deletememory frame;
	private JPanel contentPane;
    private JTextField TextField;
    private JLabel manufacturer;
    private JTextField TextField1;
    private JLabel ram;
    private JTextField TextField2;
    private JLabel hd;

	/**
	 * Launch the application.
	 */
	public static void main(String[] args) {
		EventQueue.invokeLater(new Runnable() {
			public void run() {
				try {
					frame = new deletememory();
					frame.setTitle("Delete Memory");
					frame.setVisible(true);
				} catch (Exception e) {
					e.printStackTrace();
				}
			}
		});
	}

	/**
	 * Create the frame.
	 */
	public deletememory() {
		setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
```

```
setBounds(110, 95, 650, 420);
setResizable(false);

contentPane = new JPanel();
contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
setContentPane(contentPane);
contentPane.setLayout(null);
JLabel lbladdchasis = new JLabel("Delete Memory");
lbladdchasis.setFont(new Font("Courier New", Font.BOLD, 36));
lbladdchasis.setForeground(Color.BLACK);
lbladdchasis.setBounds(275, 27, 350, 40);
contentPane.add(lbladdchasis);

TextField = new JTextField();
TextField.setFont(new Font("Tahoma", Font.PLAIN, 18));
TextField.setBounds(290, 125, 326, 40);
contentPane.add(TextField);
TextField.setColumns(10);

TextField1 = new JTextField();
TextField1.setFont(new Font("Tahoma", Font.PLAIN, 18));
TextField1.setBounds(290, 175, 350, 40);
TextField1.setEditable(false);
contentPane.add(TextField1);
TextField.setColumns(20);

TextField2 = new JTextField();
TextField2.setFont(new Font("Tahoma", Font.PLAIN, 18));
TextField2.setBounds(290, 225, 350, 40);
contentPane.add(TextField2);
TextField2.setEditable(false);
TextField.setColumns(20);



TextField.setText("");
        TextField1.setText("");
        TextField2.setText("");

    manufacturer = new JLabel("Manufacturer :");
manufacturer.setFont(new Font("Tahoma", Font.PLAIN, 18));
manufacturer.setBounds(45, 125, 326, 40);
contentPane.add(manufacturer);

ram = new JLabel("Capof.RAM(gb) :");
ram.setFont(new Font("Tahoma", Font.PLAIN, 18));
ram.setBounds(45, 175, 326, 40);
contentPane.add(ram);

hd = new JLabel("Capof.HardD(gb) :");
```

```
    hd.setFont(new Font("Tahoma", Font.PLAIN, 18));
    hd.setBounds(45, 225, 326, 40);
    contentPane.add(hd);



         Connection con = mysqlconn.getConnection();

         JButton btnBack = new JButton("Back");
        btnBack.addActionListener(new ActionListener() {
          public void actionPerformed(ActionEvent e) {
            frame.dispose();
            memory.main(new String[]{});
          }});
        btnBack.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnBack.setBackground(new Color(240, 240, 240));
        btnBack.setBounds(450, 315, 130, 50);
        contentPane.add(btnBack);
    JButton btnDelete = new JButton("Delete");
    btnDelete.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                String manufacturer=TextField.getText();
                if(manufacturer==null||manufacturer.trim().equals("")){

    JOptionPane.showMessageDialog(deletememory.this,"Manufacturer can't be
blank");
                }else{

                    int i=memorydetails.deletememory(manufacturer);
                    if(i>0){

    JOptionPane.showMessageDialog(deletememory.this,"Memory Details deleted
successfully!");
                        System.out.println("Deleted Chasis of Manufacturer :
"+manufacturer);
                    }else{

    JOptionPane.showMessageDialog(deletememory.this,"Unable to delete given
Manufacturer!");
                    }
                }
                TextField.setText("");
                TextField1.setText("");
                TextField2.setText("");

            }
        });
    btnDelete.setFont(new Font("Tahoma", Font.PLAIN, 20));
    btnDelete.setBackground(new Color(240, 240, 240));
    btnDelete.setBounds(300, 315, 130, 50);
    contentPane.add(btnDelete);

    TextField.addKeyListener((KeyListener) new KeyAdapter() {
      @Override
      public void keyPressed(KeyEvent e) {
        if(e.getKeyCode() == KeyEvent.VK_ENTER){
        String manufacturer = TextField.getText();

        Connection con = mysqlconn.getConnection();
        if(memorydetails.checkmemory(manufacturer)) {
        Statement st;
                try {
                    PreparedStatement stmt = con.prepareStatement("select *
from memory where manufacturer=?");
                    stmt.setString(1,manufacturer);
                    ResultSet rs = stmt.executeQuery();
                    while(rs.next())
                    {       TextField.setText(rs.getString(1));
            TextField1.setText(rs.getString(2));
            TextField2.setText(rs.getString(3));

            }
            } catch (SQLException e1) {
                e1.printStackTrace();
            }}else {

    JOptionPane.showMessageDialog(deletememory.this,"Manufacturer is Invalid
!!!");
                TextField.setText("");
                TextField1.setText("");
                TextField2.setText("");

            }

        }}});


    JButton btnLoad = new JButton("Load");
    btnLoad.addActionListener(new ActionListener() {
      public void actionPerformed(ActionEvent e) {
          String manufacturer = TextField.getText();

        Connection con = mysqlconn.getConnection();
        if(memorydetails.checkmemory(manufacturer)) {
        Statement st;
                try {
                    PreparedStatement stmt = con.prepareStatement("select *
from memory where manufacturer=?");
                    stmt.setString(1,manufacturer);
                    ResultSet rs = stmt.executeQuery();
```

```
                              while(rs.next())
                              {       TextField.setText(rs.getString(1));
                      TextField1.setText(rs.getString(2));
                      TextField2.setText(rs.getString(3));


                      }
                      } catch (SQLException e1) {
                          e1.printStackTrace();
                      }}else {

        JOptionPane.showMessageDialog(deletememory.this,"Manufacturer is Invalid
!!!");
                          TextField.setText("");
                          TextField1.setText("");
                          TextField2.setText("");

                      }

          }});
        btnLoad.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnLoad.setBackground(new Color(240, 240, 240));
        btnLoad.setBounds(150, 315, 130, 50);
        contentPane.add(btnLoad);

    }
}
```

4.Update Memory:

```
import java.awt.Color;

import java.awt.EventQueue;
import java.awt.Font;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;

import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JTextField;
import javax.swing.border.EmptyBorder;

public class updatememory extends JFrame {

   private static final long serialVersionUID = 1L;
   static updatememory frame;
   private JPanel contentPane;
   private JTextField TextField;
   private JLabel manufacturer;
   private JTextField TextField1;
   private JLabel ram;
   private JTextField TextField2;
   private JLabel hd;




   /**
    * Launch the application.
    */
   public static void main(String[] args) {
            EventQueue.invokeLater(new Runnable() {
                  public void run() {
                        try {
                              frame = new updatememory();
                              frame.setTitle("Modify Memory");
                              frame.setVisible(true);
                        } catch (Exception e) {
                              e.printStackTrace();
                        }
                  }
            });
      }

   /**
    * Create the frame.
    */
   public updatememory() {
      setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
      setBounds(110, 95, 650, 350);
      setResizable(false);

      contentPane = new JPanel();
      contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
      setContentPane(contentPane);
      contentPane.setLayout(null);

      TextField = new JTextField();
      TextField.setFont(new Font("Tahoma", Font.PLAIN, 18));
      TextField.setBounds(290, 37, 326, 40);
      contentPane.add(TextField);
      TextField.setColumns(10);

      TextField1 = new JTextField();
      TextField1.setFont(new Font("Tahoma", Font.PLAIN, 18));
      TextField1.setBounds(290, 87, 326, 40);
      contentPane.add(TextField1);
      TextField1.setColumns(10);

      TextField2 = new JTextField();
      TextField2.setFont(new Font("Tahoma", Font.PLAIN, 18));
      TextField2.setBounds(290, 137, 326, 40);
      contentPane.add(TextField2);
      TextField2.setColumns(10);



      TextField.setText("");
            TextField1.setText("");
            TextField2.setText("");



             Connection con = mysqlconn.getConnection();

             JButton btnBack = new JButton("Back");
            btnBack.addActionListener(new ActionListener() {
               public void actionPerformed(ActionEvent e) {
                  frame.dispose();
                  memory.main(new String[]{});
               }});
            btnBack.setFont(new Font("Tahoma", Font.PLAIN, 20));
            btnBack.setBackground(new Color(240, 240, 240));
            btnBack.setBounds(450, 225, 130, 50);
            contentPane.add(btnBack);
      JButton btnSave = new JButton("Save");
      btnSave.addActionListener(new ActionListener() {
          public void actionPerformed(ActionEvent e) {
                String m = TextField.getText();

                int ram;
                int hd;
                  if((TextField1.getText()).equals(""))
                        ram = 0;
                  else
                        ram=Integer.parseInt(TextField1.getText());

                  if((TextField2.getText()).equals(""))
                        hd = 0;
```

```
                    else
                          hd=Integer.parseInt(TextField2.getText());



                    Connection con = mysqlconn.getConnection();

              if(memorydetails.checkmemory(m)) {
              try {

                 PreparedStatement st = con.prepareStatement("Update memory set
capof_ram_in_gb=?,capof_hardd_in_gb=? where manufacturer=?");

                 st.setInt(1, ram);
                 st.setInt(2, hd);

                 st.setString(3, m);

                 st.executeUpdate();
               System.out.println("Updated Info for Manufacturer : " + m);
                 JOptionPane.showMessageDialog(updatememory.this, "Data Updated
Successfully :)");

              } catch (SQLException sqlException) {
                 sqlException.printStackTrace();
              }}
                          else{

      JOptionPane.showMessageDialog(updatememory.this,"Manufacturer ID is
Invalid !!!");
                          TextField.setText("");
                          TextField1.setText("");
                          TextField2.setText("");

           }



           }
        });
        btnSave.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnSave.setBackground(new Color(240, 240, 240));
        btnSave.setBounds(300, 225, 130, 50);
        contentPane.add(btnSave);

        manufacturer = new JLabel("Manufacturer : ");
        manufacturer.setFont(new Font("Tahoma", Font.PLAIN, 18));
        manufacturer.setBounds(45, 37, 326, 40);
        contentPane.add(manufacturer);

        ram = new JLabel("Capof.RAM(gb) : ");
```

```
ram.setFont(new Font("Tahoma", Font.PLAIN, 18));
ram.setBounds(45, 87, 326, 40);
contentPane.add(ram);

hd = new JLabel("Capof.HardD(gb) : ");
hd.setFont(new Font("Tahoma", Font.PLAIN, 18));
hd.setBounds(45, 137, 326, 40);
contentPane.add(hd);




JButton btnLoad = new JButton("Load");
btnLoad.addActionListener(new ActionListener() {
   public void actionPerformed(ActionEvent e) {
       String m = TextField.getText();
         int ram;
         int hd;

               if((TextField1.getText()).equals(""))
                     ram = 0;
               else
                     ram=Integer.parseInt(TextField1.getText());

               if((TextField2.getText()).equals(""))
                     hd = 0;
               else
                     hd=Integer.parseInt(TextField2.getText());



               Connection con = mysqlconn.getConnection();

     if(memorydetails.checkmemory(m)) {
       Statement st;
                     try {
                           PreparedStatement stmt = con.prepareStatement("select *
from memory where manufacturer=?");
                           stmt.setString(1,m);
                           ResultSet rs = stmt.executeQuery();
                           while(rs.next())
                           {      TextField.setText(rs.getString(1));
               TextField1.setText(rs.getString(2));
               TextField2.setText(rs.getString(3));

               }
               } catch (SQLException e1) {
                     e1.printStackTrace();
               }}else {
```

```
        JOptionPane.showMessageDialog(updatememory.this,"Manufacturer is Invalid
!!!");
                        TextField.setText("");
                        TextField1.setText("");
                        TextField2.setText("");

                    }

          }});
        btnLoad.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnLoad.setBackground(new Color(240, 240, 240));
        btnLoad.setBounds(150, 225, 130, 50);
        contentPane.add(btnLoad);

    }
}
```

5.View Memory:

```
        import java.awt.BorderLayout;
        import java.awt.EventQueue;
        import java.sql.Connection;
        import java.sql.PreparedStatement;
        import java.sql.ResultSet;
        import java.sql.ResultSetMetaData;

        import javax.swing.JFrame;
        import javax.swing.JPanel;
        import javax.swing.JScrollPane;
        import javax.swing.border.EmptyBorder;
        import javax.swing.JTable;

        public class viewmemory extends JFrame {

            private JPanel contentPane;
            private JTable table;

            public static void main(String[] args) {
                EventQueue.invokeLater(new Runnable() {
                    public void run() {
                        try {
                            viewmemory frame = new viewmemory();
                            frame.setTitle("Memory Details");
                            frame.setVisible(true);
                        } catch (Exception e) {
                            e.printStackTrace();
                        }
                    }
                });
            }

            /**
             * Create the frame.
             */
            public viewmemory() {
                setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
                setBounds(100, 100, 450, 300);
                contentPane = new JPanel();
                contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
                contentPane.setLayout(new BorderLayout(0, 0));
                setContentPane(contentPane);

                String data[][]=null;
                String column[]=null;
                try{
                    Connection con=mysqlconn.getConnection();
                    PreparedStatement ps=con.prepareStatement("select * from
memory",ResultSet.TYPE_SCROLL_SENSITIVE,ResultSet.CONCUR_UPDATABLE
);
                    ResultSet rs=ps.executeQuery();

                    ResultSetMetaData rsmd=rs.getMetaData();
                    int cols=rsmd.getColumnCount();
                    column=new String[cols];
                    for(int i=1;i<=cols;i++){
                        column[i-1]=rsmd.getColumnName(i);
                    }

                    rs.last();
                    int rows=rs.getRow();
                    rs.beforeFirst();

                    data=new String[rows][cols];
                    int count=0;
                    while(rs.next()){
                        for(int i=1;i<=cols;i++){
                            data[count][i-1]=rs.getString(i);
                        }
                        count++;
                    }
                    con.close();
                }catch(Exception e){System.out.println(e);}

                table = new JTable(data,column);
                table.setDefaultEditor(Object.class, null);
                JScrollPane sp=new JScrollPane(table);
```

```
			contentPane.add(sp, BorderLayout.CENTER);
		}

	}
```

6.Memory:

```
import java.awt.EventQueue;
import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel;
import java.awt.Font;
import java.awt.Color;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

public class memory extends JFrame {
	private static final long serialVersionUID = 1L;
	static memory frame;
	private JPanel contentPane;

	/**
	 * Launch the application.
	 */
	public static void main(String[] args) {
		EventQueue.invokeLater(new Runnable() {
			public void run() {
				try {
					frame = new memory();
					frame.setVisible(true);
				} catch (Exception e) {
					e.printStackTrace();
				}
			}
		});
	}

	/**
	 * Create the frame.
	 */
	public memory() {
		setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
		setBounds(100, 100, 450, 433);
```

```
contentPane = new JPanel();
contentPane.setForeground(Color.GRAY);
contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
setContentPane(contentPane);

JLabel lblSection = new JLabel("memory:");
lblSection.setFont(new Font("Tahoma", Font.PLAIN, 22));

JButton btnSAdd = new JButton("Add memory");
btnSAdd.addActionListener(new ActionListener() {
	public void actionPerformed(ActionEvent e) {
	addmemory.main(new String[]{});
	frame.dispose();
	}
});
btnSAdd.setFont(new Font("Tahoma", Font.PLAIN, 13));

JButton btnSUpdate = new JButton("Modify memory Details");
btnSUpdate.addActionListener(new ActionListener() {
	public void actionPerformed(ActionEvent arg0) {
		updatememory.main(new String[]{});
		frame.dispose();
	}
});
btnSUpdate.setFont(new Font("Tahoma", Font.PLAIN, 13));

JButton btnSDelete = new JButton("Delete memory");
btnSDelete.addActionListener(new ActionListener() {
	public void actionPerformed(ActionEvent e) {
	deletememory.main(new String[]{});
		frame.dispose();
	}
});
btnSDelete.setFont(new Font("Tahoma", Font.PLAIN, 13));

JButton btnView = new JButton("View All memory's");
btnView.addActionListener(new ActionListener() {
	public void actionPerformed(ActionEvent e) {
		viewmemory.main(new String[]{});

	}
});
btnView.setFont(new Font("Tahoma", Font.PLAIN, 13));

JButton btnBack = new JButton("Back");
btnBack.addActionListener(new ActionListener() {
	public void actionPerformed(ActionEvent e) {
	menu.main(new String[]{});
		frame.dispose();
	}
```

```
		});
		btnBack.setFont(new Font("Tahoma", Font.PLAIN, 13));

		GroupLayout gl_contentPane = new GroupLayout(contentPane);
		gl_contentPane.setHorizontalGroup(
			gl_contentPane.createParallelGroup(Alignment.LEADING)
				.addGroup(Alignment.TRAILING,
gl_contentPane.createSequentialGroup()
					.addContainerGap(81, Short.MAX_VALUE)
					.addComponent(lblSection)
					.addGap(54))
				.addGroup(gl_contentPane.createSequentialGroup()
					.addGap(132)

	.addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)
						.addComponent(btnBack,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
						.addComponent(btnView,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
						.addComponent(btnSDelete,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
						.addComponent(btnSUpdate,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
						.addComponent(btnSAdd,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE))
					.addContainerGap(101, Short.MAX_VALUE))
		);
		gl_contentPane.setVerticalGroup(
			gl_contentPane.createParallelGroup(Alignment.LEADING)
				.addGroup(gl_contentPane.createSequentialGroup()
					.addContainerGap()
					.addComponent(lblSection)
					.addGap(18)
					.addComponent(btnSAdd,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
					.addGap(18)
					.addComponent(btnSUpdate,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
					.addGap(18)
					.addComponent(btnSDelete,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
					.addGap(18)
					.addComponent(btnView,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
					.addGap(18)
					.addComponent(btnBack,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
					.addContainerGap(16, Short.MAX_VALUE))
		);
		contentPane.setLayout(gl_contentPane);
	}

}
```

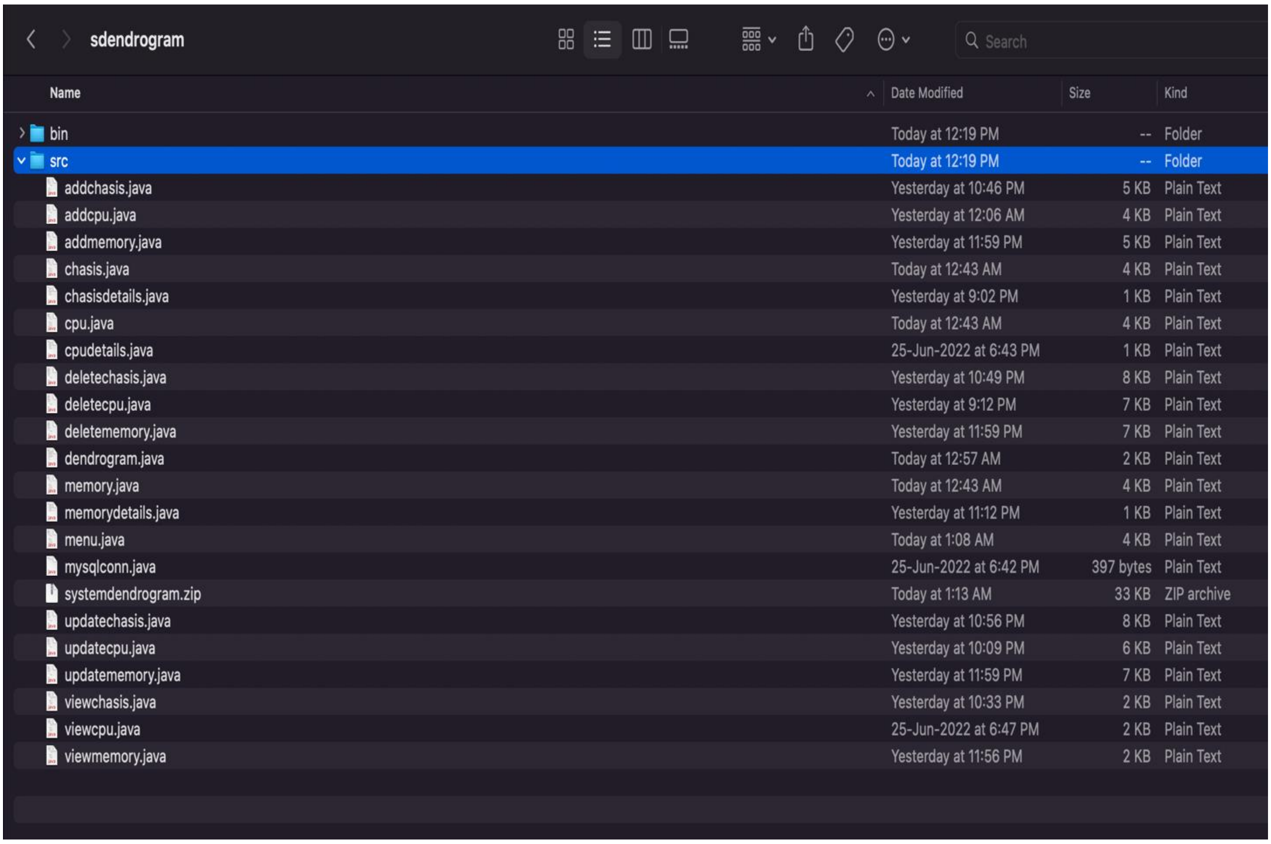
Main Code:

```
import java.awt.EventQueue;
import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel;
import java.awt.Font;
import java.awt.Color;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

public class menu extends JFrame {
	private static final long serialVersionUID = 1L;
	static menu frame;
	private JPanel contentPane;
	static String idd;

	/**
	 * Launch the application.
	 */
	public static void main(String[] args) {
		EventQueue.invokeLater(new Runnable() {
			public void run() {
				try {
					frame = new menu();
					frame.setTitle("System Dendrogram");
					frame.setVisible(true);
				} catch (Exception e) {
					e.printStackTrace();
				}
			}
		});
	}

	/**
	 * Create the frame.
	 */
	public menu() {
		setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
```

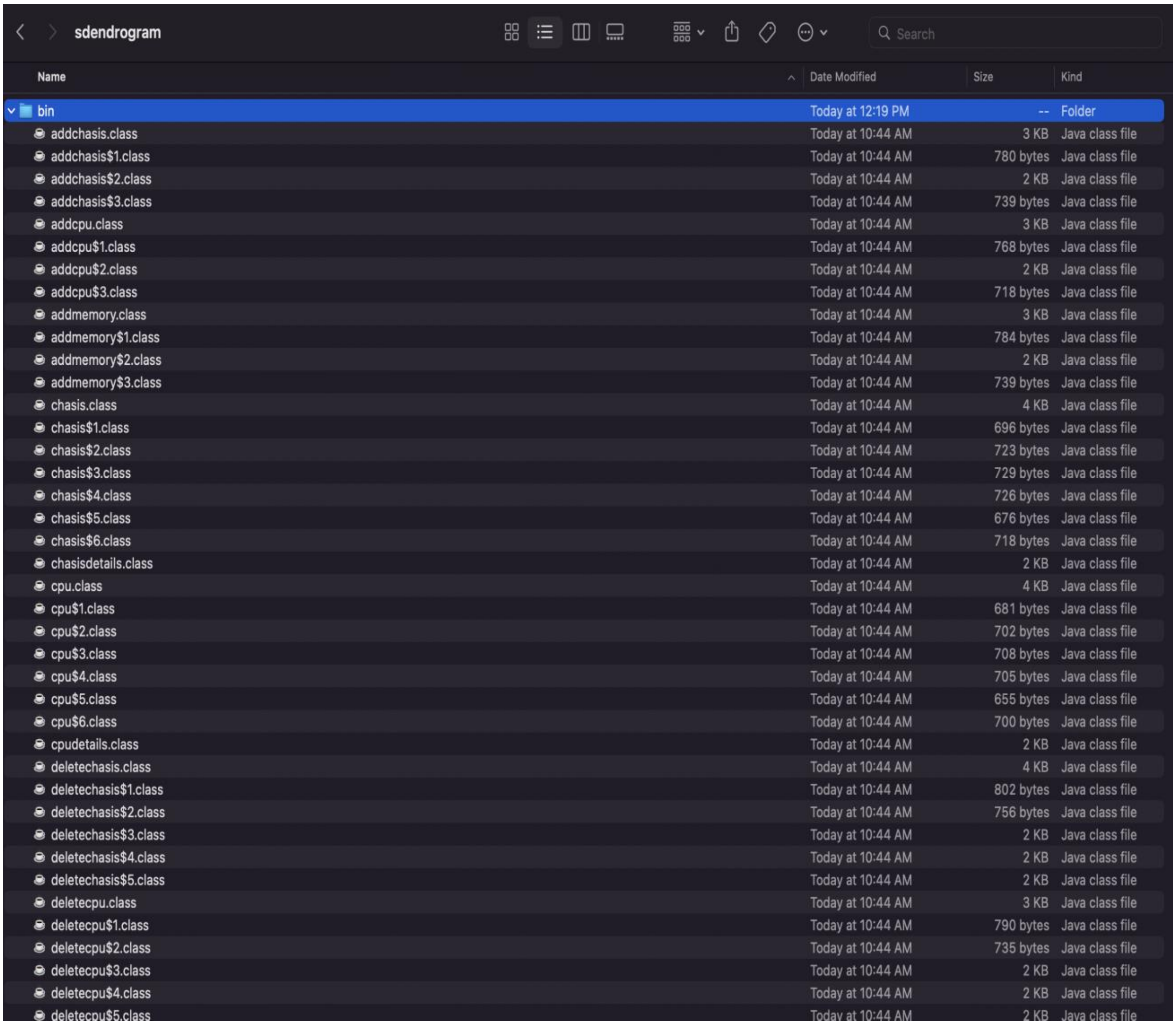
```
setBounds(100, 100, 450, 433);
contentPane = new JPanel();
contentPane.setForeground(Color.GRAY);
contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
setContentPane(contentPane);

//JLabel d = new JLabel("System Dendrogram");

JButton btncpuinfo = new JButton("CPU Info");
btncpuinfo.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
        cpu.main(new String[]{});
        frame.dispose();
        }
});
btncpuinfo.setFont(new Font("Tahoma", Font.PLAIN, 13));

JButton btnchasisinfo = new JButton("Chasis Info");
btnchasisinfo.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent arg0) {
                chasis.main(new String[]{});
                frame.dispose();
        }
});
btnchasisinfo.setFont(new Font("Tahoma", Font.PLAIN, 13));

JButton btnmemoryinfo = new JButton("Memory Info");
btnmemoryinfo.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
                memory.main(new String[]{});
                frame.dispose();
        }
});
btnmemoryinfo.setFont(new Font("Tahoma", Font.PLAIN, 13));

JButton btndendro = new JButton("Generate Dendrogram");
btndendro.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
                dendrogram.main(new String[]{});
                frame.dispose();
        }
});
btndendro.setFont(new Font("Tahoma", Font.PLAIN, 13));




GroupLayout gl_contentPane = new GroupLayout(contentPane);
gl_contentPane.setHorizontalGroup(
                        gl_contentPane.createParallelGroup(Alignment.LEADING)
                                .addGroup(Alignment.TRAILING,
gl_contentPane.createSequentialGroup()
                                        .addContainerGap(81, Short.MAX_VALUE)
                                        //.addComponent(dendrogra)
                                        .addGap(54))
                                .addGroup(gl_contentPane.createSequentialGroup()
                                        .addGap(132)

        .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)

                                                .addComponent(btnmemoryinfo,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
                                                .addComponent(btndendro,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)

                                                .addComponent(btnchasisinfo,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE)
                                                .addComponent(btncpuinfo,
GroupLayout.PREFERRED_SIZE, 191, GroupLayout.PREFERRED_SIZE))


                                        .addContainerGap(101, Short.MAX_VALUE))
                );
                gl_contentPane.setVerticalGroup(
                        gl_contentPane.createParallelGroup(Alignment.LEADING)
                                .addGroup(gl_contentPane.createSequentialGroup()
                                        .addContainerGap()
                                        //.addComponent(dendrogra)
                                        //.addGap(18)
                                        .addComponent(btncpuinfo,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                                        .addGap(18)
                                        .addComponent(btnchasisinfo,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                                        .addGap(18)
                                        .addComponent(btndendro,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                                        .addGap(18)
                                        .addComponent(btnmemoryinfo,
GroupLayout.PREFERRED_SIZE, 37, GroupLayout.PREFERRED_SIZE)
                                        .addGap(18)

                ));
                contentPane.setLayout(gl_contentPane);
        }

}
```

GitHub links and folder structure

https://github.com/charanraj28



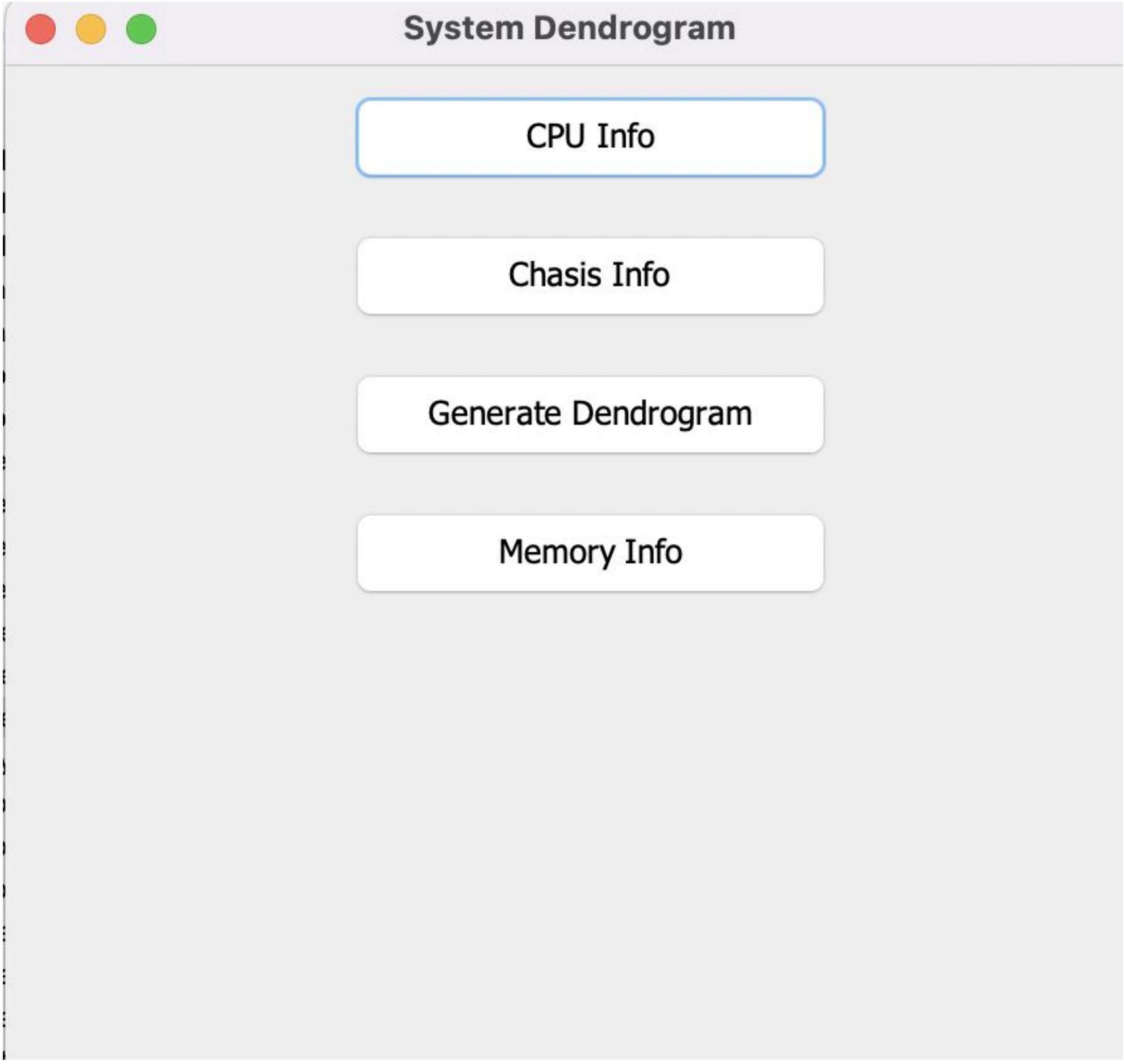
Name	Date Modified	Size	Kind
bin	Today at 12:19 PM	--	Folder
src	Today at 12:19 PM	--	Folder
addchasis.java	Yesterday at 10:46 PM	5 KB	Plain Text
addcpu.java	Yesterday at 12:06 AM	4 KB	Plain Text
addmemory.java	Yesterday at 11:59 PM	5 KB	Plain Text
chasis.java	Today at 12:43 AM	4 KB	Plain Text
chasisdetails.java	Yesterday at 9:02 PM	1 KB	Plain Text
cpu.java	Today at 12:43 AM	4 KB	Plain Text
cpudetails.java	25-Jun-2022 at 6:43 PM	1 KB	Plain Text
deletechasis.java	Yesterday at 10:49 PM	8 KB	Plain Text
deletecpu.java	Yesterday at 9:12 PM	7 KB	Plain Text
deletememory.java	Yesterday at 11:59 PM	7 KB	Plain Text
dendrogram.java	Today at 12:57 AM	2 KB	Plain Text
memory.java	Today at 12:43 AM	4 KB	Plain Text
memorydetails.java	Yesterday at 11:12 PM	1 KB	Plain Text
menu.java	Today at 1:08 AM	4 KB	Plain Text
mysqlconn.java	25-Jun-2022 at 6:42 PM	397 bytes	Plain Text
systemdendrogram.zip	Today at 1:13 AM	33 KB	ZIP archive
updatechasis.java	Yesterday at 10:56 PM	8 KB	Plain Text
updatecpu.java	Yesterday at 10:09 PM	6 KB	Plain Text
updatememory.java	Yesterday at 11:59 PM	7 KB	Plain Text
viewchasis.java	Yesterday at 10:33 PM	2 KB	Plain Text
viewcpu.java	25-Jun-2022 at 6:47 PM	2 KB	Plain Text
viewmemory.java	Yesterday at 11:56 PM	2 KB	Plain Text

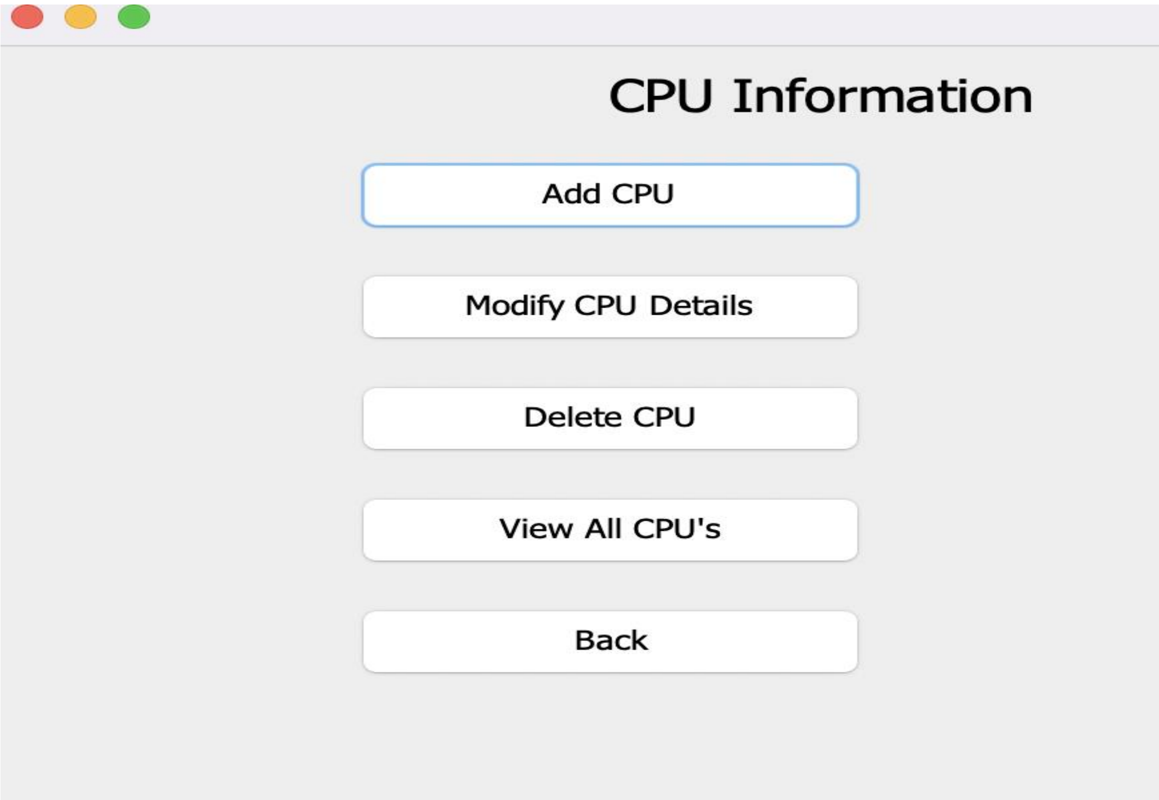


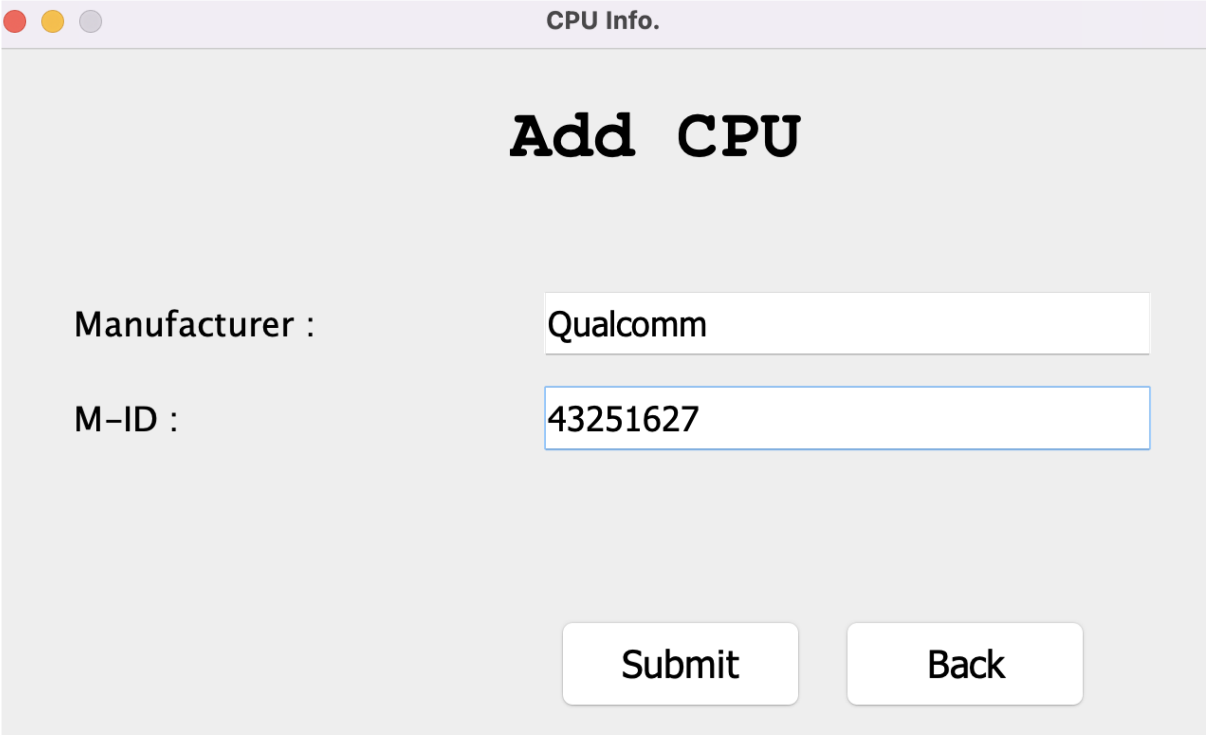
Name	Date Modified	Size	Kind
bin	Today at 12:19 PM	--	Folder
addchasis.class	Today at 10:44 AM	3 KB	Java class file
addchasis$1.class	Today at 10:44 AM	780 bytes	Java class file
addchasis$2.class	Today at 10:44 AM	2 KB	Java class file
addchasis$3.class	Today at 10:44 AM	739 bytes	Java class file
addcpu.class	Today at 10:44 AM	3 KB	Java class file
addcpu$1.class	Today at 10:44 AM	768 bytes	Java class file
addcpu$2.class	Today at 10:44 AM	2 KB	Java class file
addcpu$3.class	Today at 10:44 AM	718 bytes	Java class file
addmemory.class	Today at 10:44 AM	3 KB	Java class file
addmemory$1.class	Today at 10:44 AM	784 bytes	Java class file
addmemory$2.class	Today at 10:44 AM	2 KB	Java class file
addmemory$3.class	Today at 10:44 AM	739 bytes	Java class file
chasis.class	Today at 10:44 AM	4 KB	Java class file
chasis$1.class	Today at 10:44 AM	696 bytes	Java class file
chasis$2.class	Today at 10:44 AM	723 bytes	Java class file
chasis$3.class	Today at 10:44 AM	729 bytes	Java class file
chasis$4.class	Today at 10:44 AM	726 bytes	Java class file
chasis$5.class	Today at 10:44 AM	676 bytes	Java class file
chasis$6.class	Today at 10:44 AM	718 bytes	Java class file
chasisdetails.class	Today at 10:44 AM	2 KB	Java class file
cpu.class	Today at 10:44 AM	4 KB	Java class file
cpu$1.class	Today at 10:44 AM	681 bytes	Java class file
cpu$2.class	Today at 10:44 AM	702 bytes	Java class file
cpu$3.class	Today at 10:44 AM	708 bytes	Java class file
cpu$4.class	Today at 10:44 AM	705 bytes	Java class file
cpu$5.class	Today at 10:44 AM	655 bytes	Java class file
cpu$6.class	Today at 10:44 AM	700 bytes	Java class file
cpudetails.class	Today at 10:44 AM	2 KB	Java class file
deletechasis.class	Today at 10:44 AM	4 KB	Java class file
deletechasis$1.class	Today at 10:44 AM	802 bytes	Java class file
deletechasis$2.class	Today at 10:44 AM	756 bytes	Java class file
deletechasis$3.class	Today at 10:44 AM	2 KB	Java class file
deletechasis$4.class	Today at 10:44 AM	2 KB	Java class file
deletechasis$5.class	Today at 10:44 AM	2 KB	Java class file
deletecpu.class	Today at 10:44 AM	3 KB	Java class file
deletecpu$1.class	Today at 10:44 AM	790 bytes	Java class file
deletecpu$2.class	Today at 10:44 AM	735 bytes	Java class file
deletecpu$3.class	Today at 10:44 AM	2 KB	Java class file
deletecpu$4.class	Today at 10:44 AM	2 KB	Java class file
deletecpu$5.class	Today at 10:44 AM	2 KB	Java class file

Testing:

Java GUI Testing:

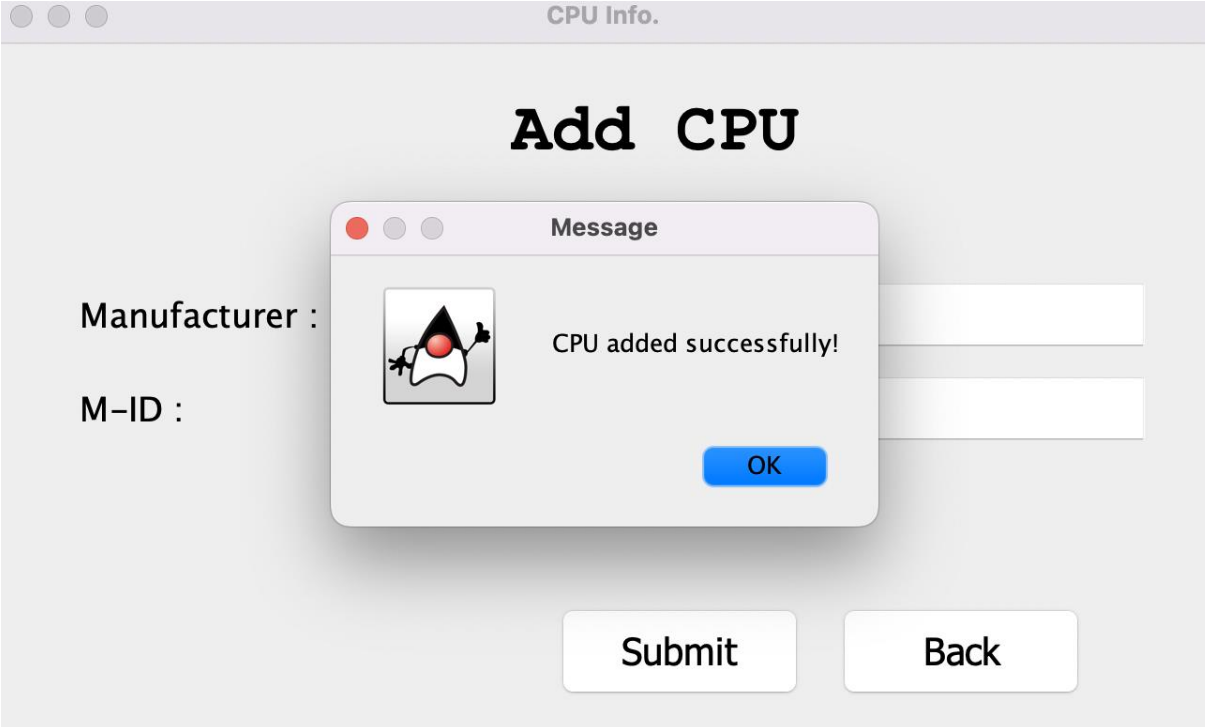




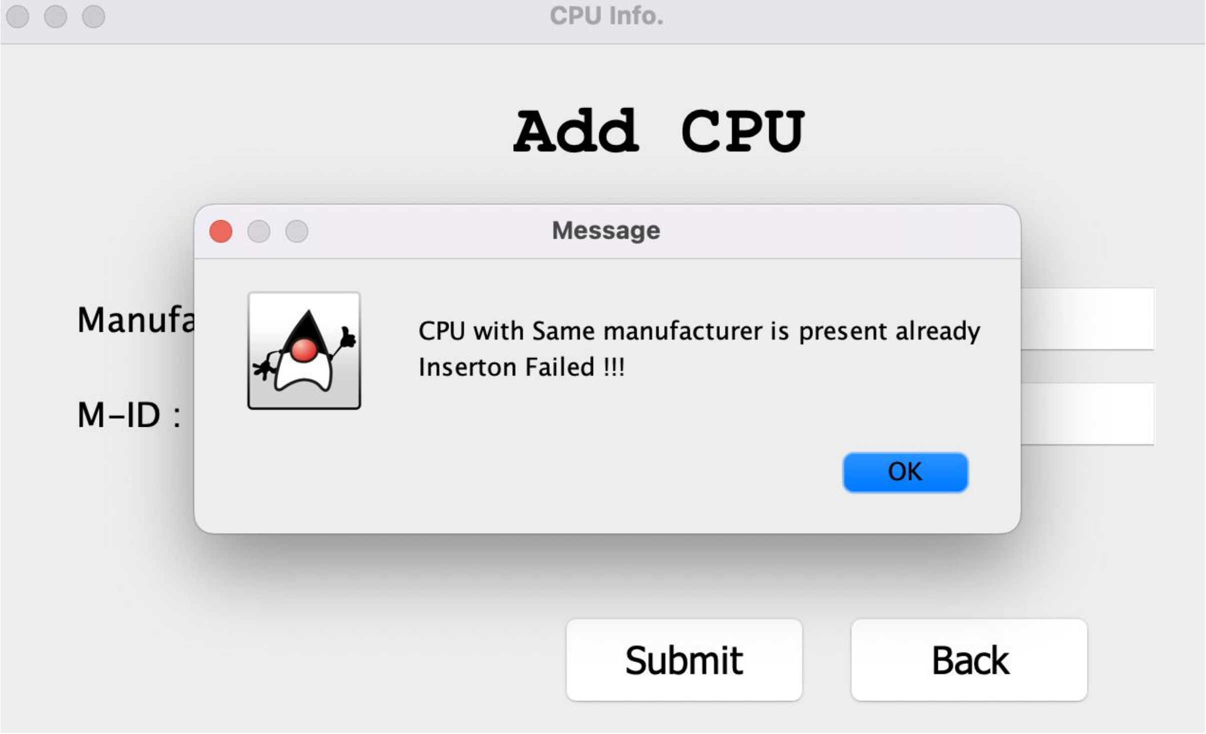


Manufacturer : Qualcomm

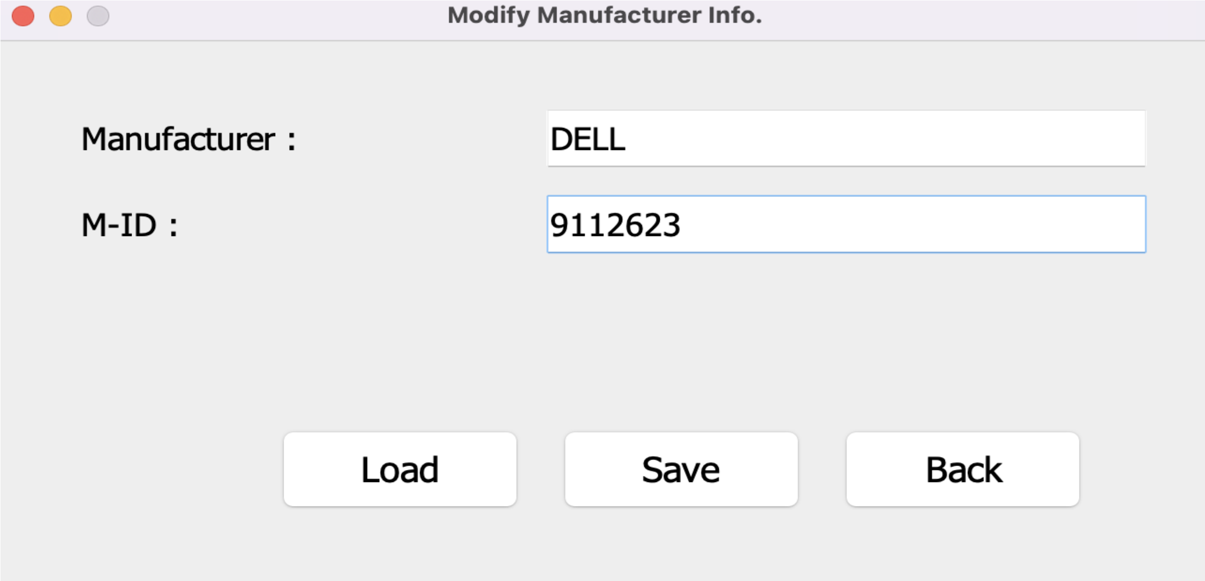
M–ID : 43251627



CPU added successfully!



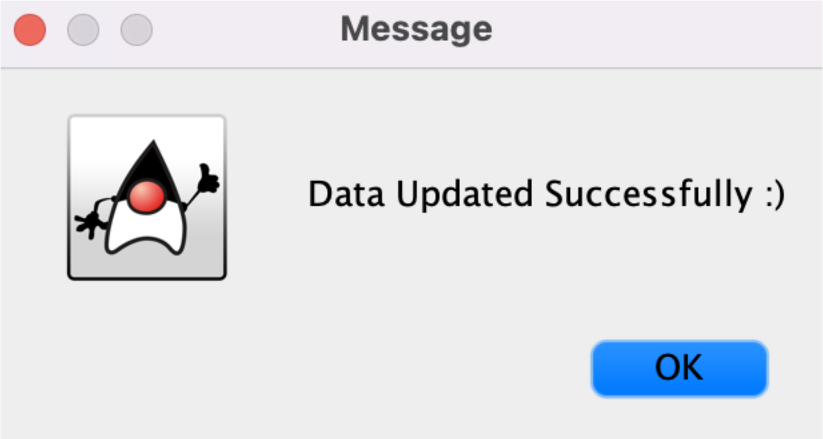
CPU with Same manufacturer is present already
Inserton Failed !!!



Modify Manufacturer Info.

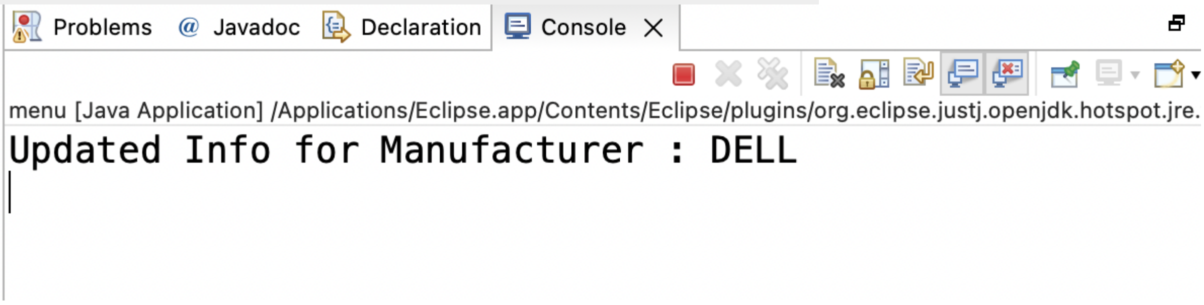
Manufacturer : DELL

M-ID : 9112623

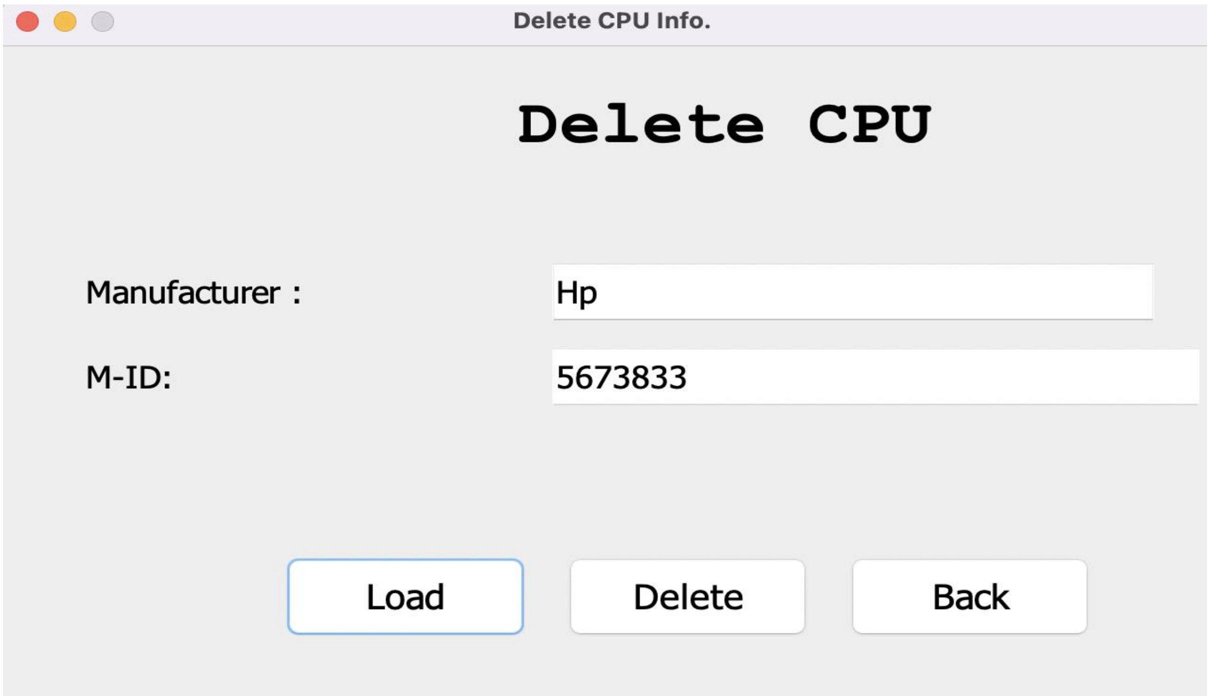


Message

Data Updated Successfully :)



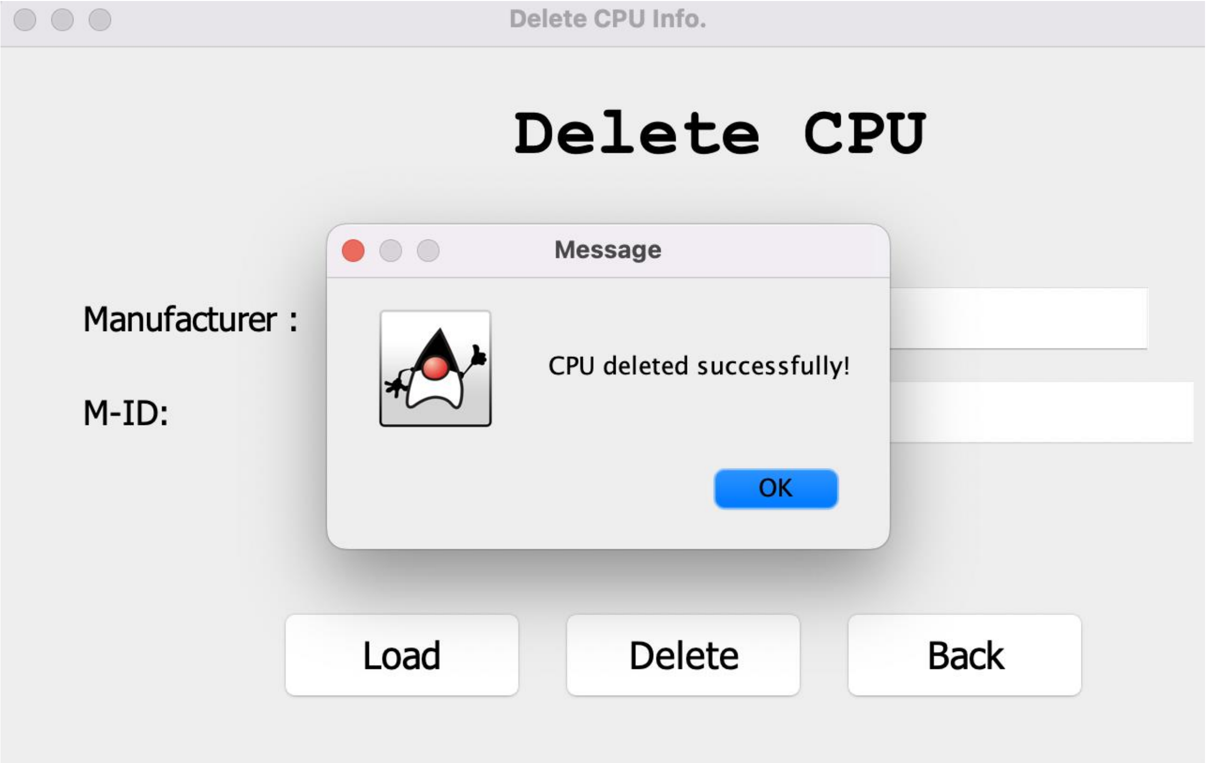
```
menu [Java Application] /Applications/Eclipse.app/Contents/Eclipse/plugins/org.eclipse.justj.openjdk.hotspot.jre.
Updated Info for Manufacturer : DELL
```



Delete CPU

Manufacturer : Hp

M-ID: 5673833

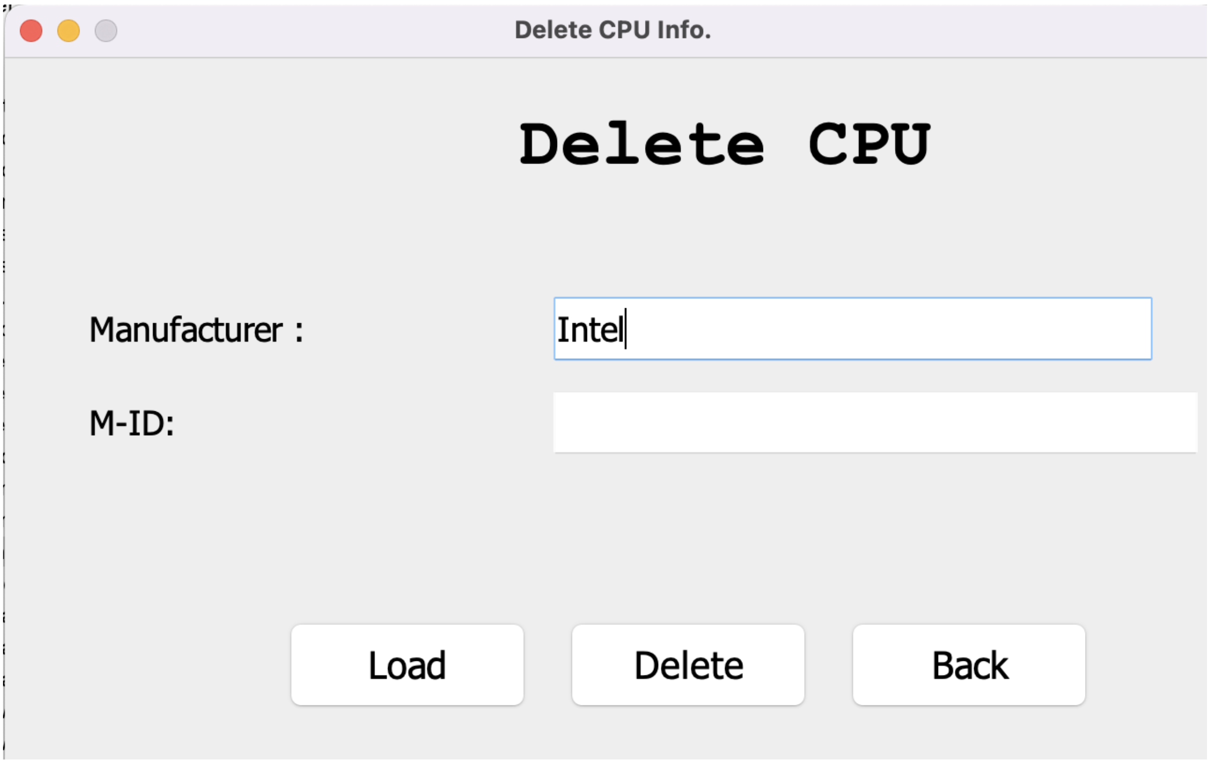


Delete CPU

Manufacturer :

M-ID:

CPU deleted successfully!

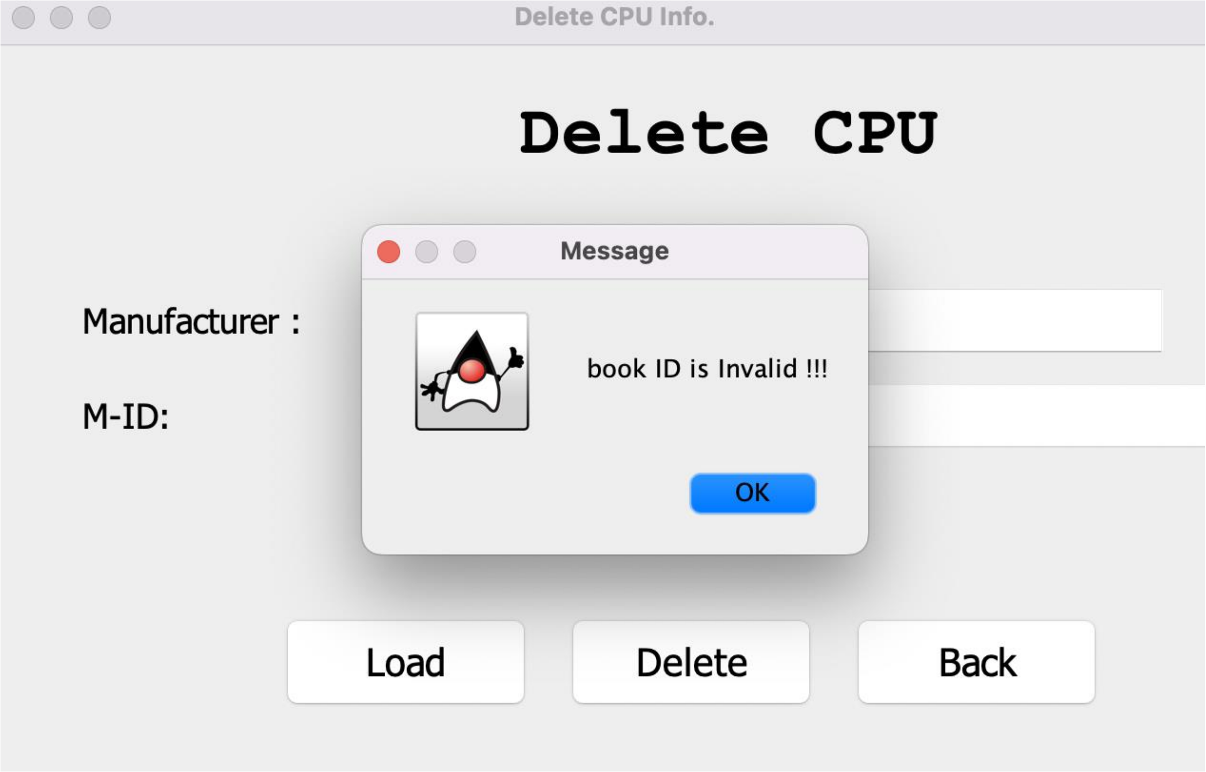


Delete CPU Info.

Delete CPU

Manufacturer : Intel

M-ID:



Delete CPU Info.

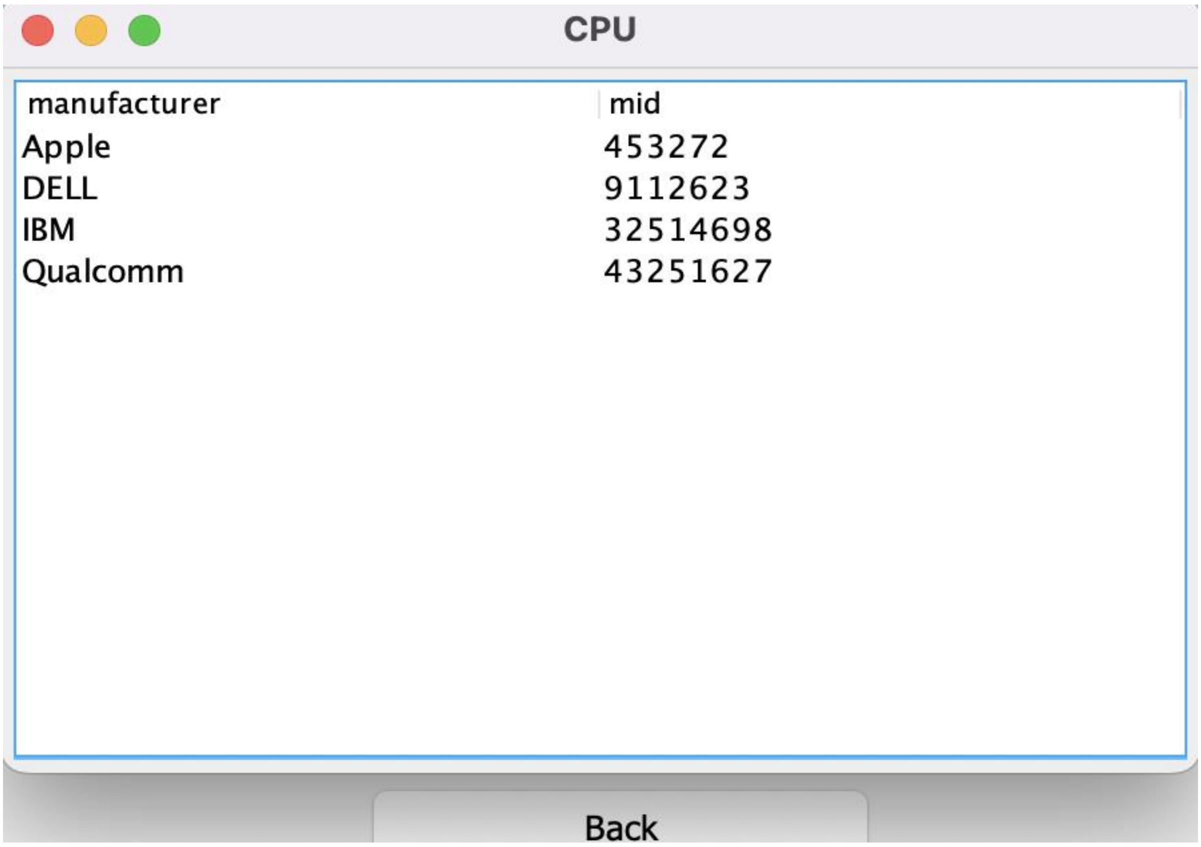
Delete CPU

Manufacturer :

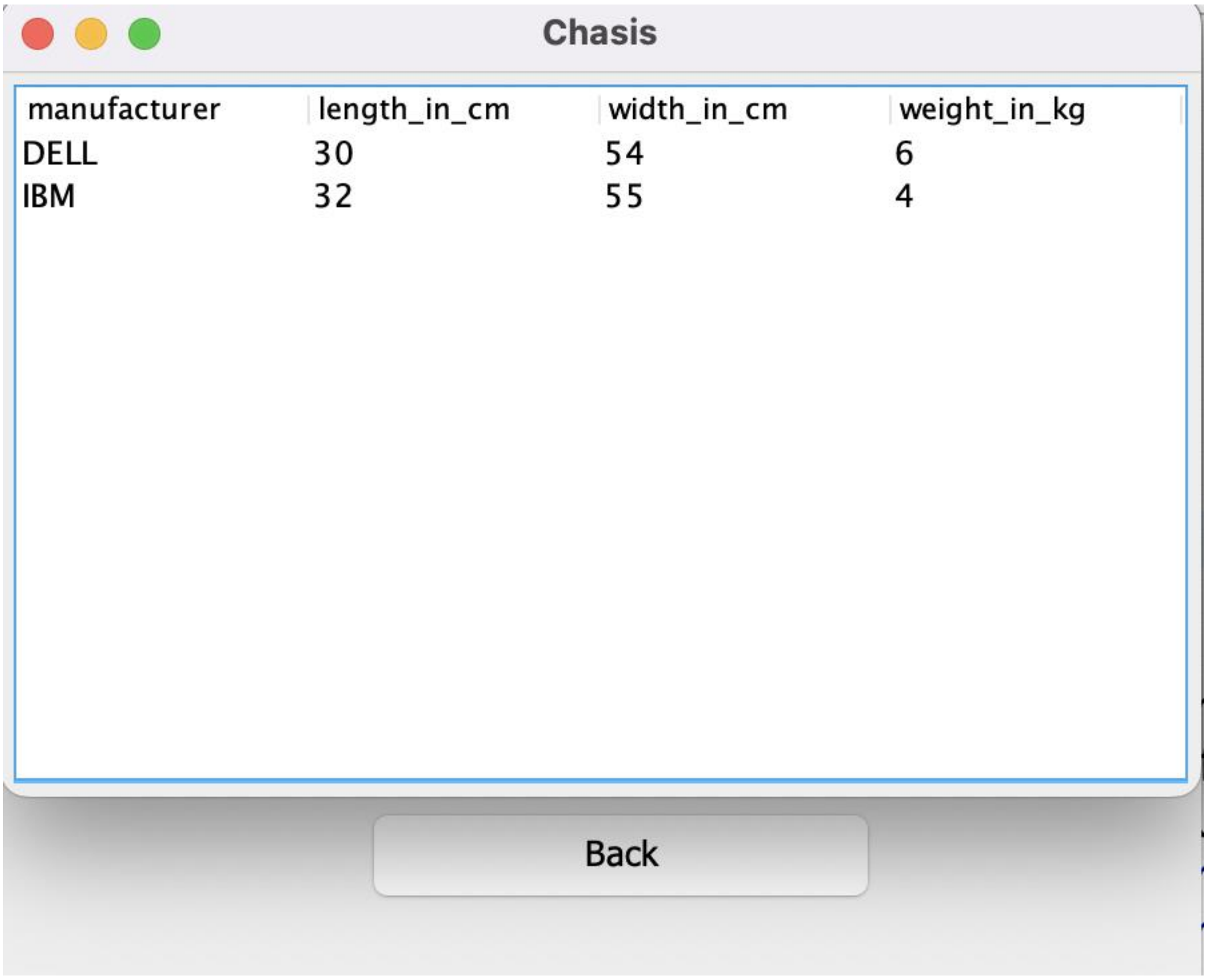
M-ID:

Message

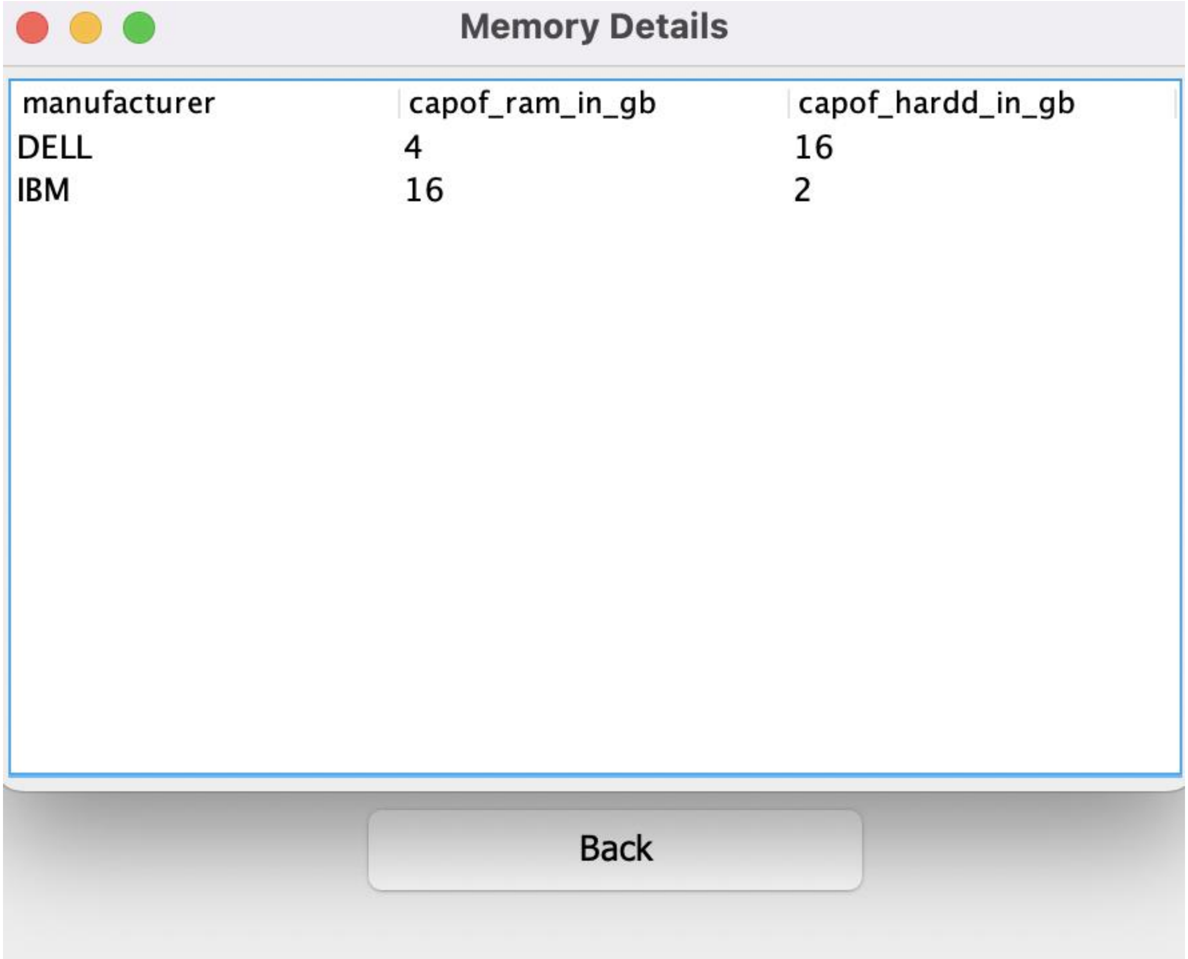
book ID is Invalid !!!



manufacturer	mid
Apple	453272
DELL	9112623
IBM	32514698
Qualcomm	43251627

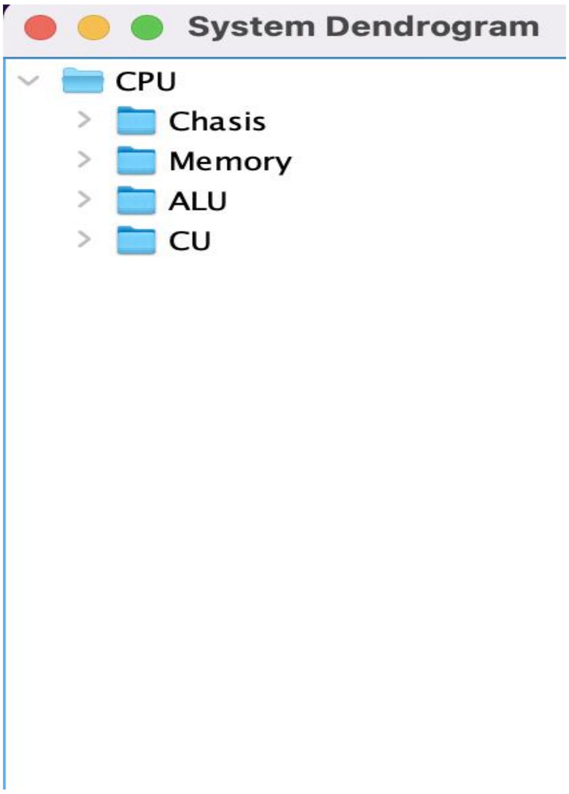


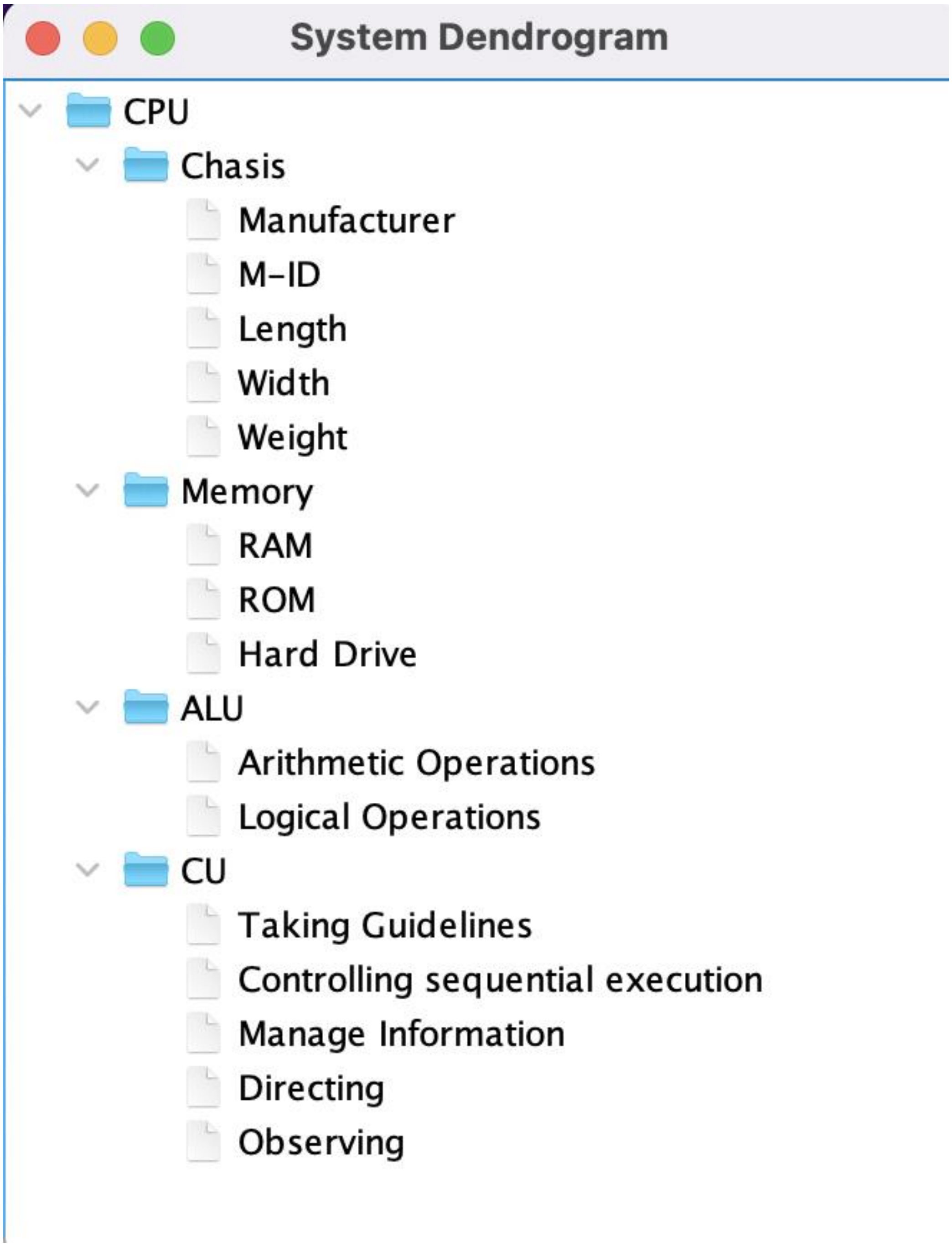
manufacturer	length_in_cm	width_in_cm	weight_in_kg
DELL	30	54	6
IBM	32	55	4



Memory Details

manufacturer	capof_ram_in_gb	capof_hardd_in_gb
DELL	4	16
IBM	16	2

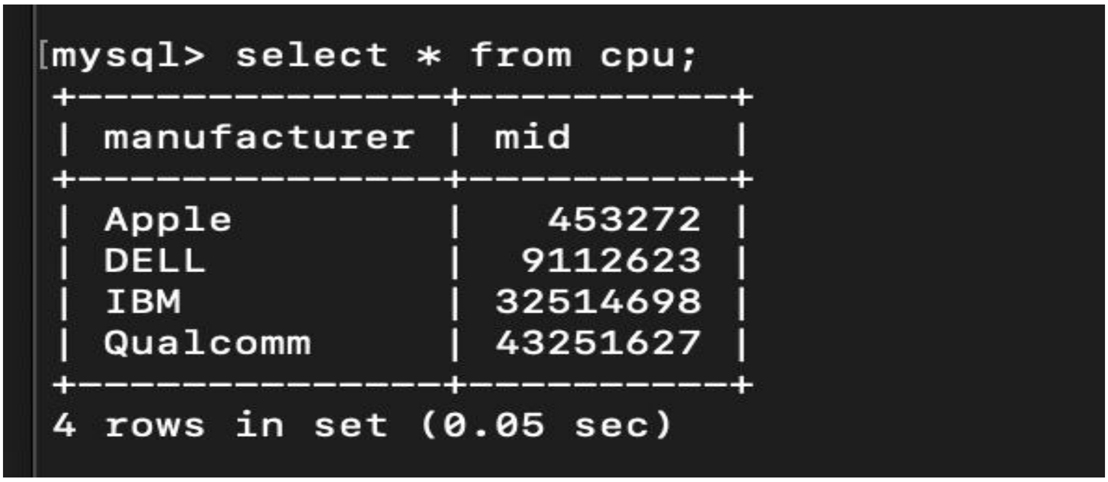




System Dendrogram

- CPU
  - Chasis
    - Manufacturer
    - M-ID
    - Length
    - Width
    - Weight
  - Memory
    - RAM
    - ROM
    - Hard Drive
  - ALU
    - Arithmetic Operations
    - Logical Operations
  - CU
    - Taking Guidelines
    - Controlling sequential execution
    - Manage Information
    - Directing
    - Observing

The data entered in the above form is updated in the “cpu” table of the Oracle database 11g as



```
[mysql> select * from cpu;
+--------------+----------+
| manufacturer | mid      |
+--------------+----------+
| Apple        |   453272 |
| DELL         |  9112623 |
| IBM          | 32514698 |
| Qualcomm     | 43251627 |
+--------------+----------+
4 rows in set (0.05 sec)
```

Results:

I successfully completed this project and generated dendrogram for the System.

Discussion and Future work

While doing this project I got new ideas I understood how to work on projects. Now to further extend this project I want to create a android app by which I can control my project on my hand and connect to it.

References:

- https://www.nonlinear.com/support/progenesis/comet/faq/v2.0/dendrogram.aspx#:~:text=The%20dendrogram%20is%20a%20visual,referred%20to%20as%20a%20node.
- https://www.codejava.net/java-se/swing/jtree-basic-tutorial-and-examples
- https://docs.oracle.com/javase/7/docs/api/javax/swing/package-summary.html
- https://dev.mysql.com/doc/dev/connector-j/8.0/