CHAPTER 5: PROGRAM CODE

This chapter presents the Java program code for the Bank Management System. The program is implemented using Java as the primary language and MySQL as the database for storing and managing user data. The code is divided into different modules based on system functionalities such as user login, account management, deposit, withdrawal, and balance enquiry.

1.MAIN CLASS CODE

```java
package bank.management.system;


import javax.swing.*;

import java.awt.*;

import java.awt.event.ActionEvent;

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

```java
public class main_Class extends JFrame implements ActionListener {

    JButton b1,b2,b3,b4,b5,b6,b7;

    String pin;

    main_Class(String pin){

        this.pin = pin;


        ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icon/atm2.png"));

        Image i2 = i1.getImage().getScaledInstance(1550,830,Image.SCALE_DEFAULT);

        ImageIcon i3 = new ImageIcon(i2);

        JLabel l3 = new JLabel(i3);

        l3.setBounds(0,0,1550,830);

        add(l3);


        JLabel label = new JLabel("Please Select Your Transaction");

        label.setBounds(430,180,700,35);

        label.setForeground(Color.WHITE);

        label.setFont(new Font("System",Font.BOLD,28));

        l3.add(label);


        b1 = new JButton("DEPOSIT");

        b1.setForeground(Color.WHITE);

        b1.setBackground(new Color(65,125,128));

        b1.setBounds(410,274,150,35);
```

```java
b1.addActionListener(this);

l3.add(b1);


b2 = new JButton("CASH WITHDRAWL");

b2.setForeground(Color.WHITE);

b2.setBackground(new Color(65,125,128));

b2.setBounds(700,274,150,35);

b2.addActionListener(this);

l3.add(b2);


b3 = new JButton("FAST CASH");

b3.setForeground(Color.WHITE);

b3.setBackground(new Color(65,125,128));

b3.setBounds(410,318,150,35);

b3.addActionListener(this);

l3.add(b3);


b4 = new JButton("MINI STATEMENT");

b4.setForeground(Color.WHITE);

b4.setBackground(new Color(65,125,128));

b4.setBounds(700,318,150,35);

b4.addActionListener(this);

l3.add(b4);
```

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```java
b5 = new JButton("PIN CHANGE");

b5.setForeground(Color.WHITE);

b5.setBackground(new Color(65,125,128));

b5.setBounds(410,362,150,35);

b5.addActionListener(this);

l3.add(b5);


b6 = new JButton("BALANCE ENQUIRY");

b6.setForeground(Color.WHITE);

b6.setBackground(new Color(65,125,128));

b6.setBounds(700,362,150,35);

b6.addActionListener(this);

l3.add(b6);


b7 = new JButton("EXIT");

b7.setForeground(Color.WHITE);

b7.setBackground(new Color(65,125,128));

b7.setBounds(700,406,150,35);

b7.addActionListener(this);

l3.add(b7);


setLayout(null);

setSize(1550,1080);

setLocation(0,0);
```

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```java
        setVisible(true);

    }


    @Override
    public void actionPerformed(ActionEvent e) {
        if (e.getSource()==b1){
            new Deposit(pin);
            setVisible(false);
        }else if (e.getSource()==b7){
            System.exit(0);
        } else if (e.getSource()==b2) {
            new Withdrawl(pin);
            setVisible(false);
        } else if (e.getSource()==b6) {
            new BalanceEnquriy(pin);
            setVisible(false);
        } else if (e.getSource()==b3) {
            new FastCash(pin);
            setVisible(false);
        } else if (e.getSource()==b5) {
            new Pin(pin);
            setVisible(false);
        } else if (e.getSource()==b4) {
```

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```java
      new mini(pin);

    }

  }


  public static void main(String[] args) {

    new main_Class("");

  }

}
```

2. LOGIN CLASS CODE

```java
package bank.management.system;

import javax.swing.*;

import java.awt.*;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

import java.sql.ResultSet;


public class Login extends JFrame implements ActionListener {

  JLabel label1, label2, label3;

  JTextField textField2;

  JPasswordField passwordField3;


  JButton button1,button2,button3;
```

```java
Login(){

    super("Bank Management System");

    ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icon/bank.png"));

    Image i2 = i1.getImage().getScaledInstance(100,100,Image.SCALE_DEFAULT);

    ImageIcon i3 = new ImageIcon(i2);

    JLabel image = new JLabel(i3);

    image.setBounds(350,10,100,100);

    add(image);


    ImageIcon ii1 = new ImageIcon(ClassLoader.getSystemResource("icon/card.png"));

    Image ii2 = ii1.getImage().getScaledInstance(100,100,Image.SCALE_DEFAULT);

    ImageIcon ii3 = new ImageIcon(ii2);

    JLabel iimage = new JLabel(ii3);

    iimage.setBounds(630,350,100,100);

    add(iimage);


    label1 = new JLabel("WELCOME TO ATM");

    label1.setForeground(Color.WHITE);

    label1.setFont(new Font("AvantGarde", Font.BOLD, 38));

    label1.setBounds(230,125,450,40);

    add(label1);


    label2 = new JLabel("Card No:");

    label2.setFont(new Font("Ralway", Font.BOLD, 28));
```

```java
label2.setForeground(Color.WHITE);

label2.setBounds(150,190,375,30);

add(label2);


textField2 = new JTextField(15);

textField2.setBounds(325,190,230,30);

textField2.setFont(new Font("Arial", Font.BOLD,14));

add(textField2);


label3 = new JLabel("PIN: ");

label3.setFont(new Font("Ralway", Font.BOLD, 28));

label3.setForeground(Color.WHITE);

label3.setBounds(150,250,375,30);

add(label3);


passwordField3 = new JPasswordField(15);

passwordField3.setBounds(325,250,230,30);

passwordField3.setFont(new Font("Arial", Font.BOLD, 14));

add(passwordField3);


button1 = new JButton("SIGN IN");

button1.setFont(new Font("Arial", Font.BOLD, 14));

button1.setForeground(Color.WHITE);

button1.setBackground(Color.BLACK);
```

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```java
button1.setBounds(300,300,100, 30);

button1.addActionListener(this);

add(button1);


button2 = new JButton("CLEAR");

button2.setFont(new Font("Arial", Font.BOLD, 14));

button2.setForeground(Color.WHITE);

button2.setBackground(Color.BLACK);

button2.setBounds(430,300,100, 30);

button2.addActionListener(this);

add(button2);


button3 = new JButton("SIGN UP");

button3.setFont(new Font("Arial", Font.BOLD, 14));

button3.setForeground(Color.WHITE);

button3.setBackground(Color.BLACK);

button3.setBounds(300,350,230, 30);

button3.addActionListener(this);

add(button3);


ImageIcon iii1 = new ImageIcon(ClassLoader.getSystemResource("icon/backbg.png"));

Image iii2 = iii1.getImage().getScaledInstance(850,480,Image.SCALE_DEFAULT);

ImageIcon iii3 = new ImageIcon(iii2);

JLabel iiimage = new JLabel(iii3);
```

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```java
    iiimage.setBounds(0,0,850,480);

    add(iiimage);



    setLayout(null);

    setSize(850,480);

    setLocation(450,200);

    setUndecorated(true);

    setVisible(true);

  }


  @Override
  public void actionPerformed(ActionEvent e) {

    try{

      if (e.getSource()==button1){

        Connn c = new Connn();

        String cardno = textField2.getText();

        String pin = passwordField3.getText();

        String q = "select * from login where card_number = '"+cardno+"' and  pin =
'"+pin+"'";

        ResultSet resultSet = c.statement.executeQuery(q);

        if (resultSet.next()){

          setVisible(false);

          new main_Class(pin);

        }else {
```

```java
                    JOptionPane.showMessageDialog(null,"Incorrect Card Number or PIN");

            }



        }else if (e.getSource() == button2){

            textField2.setText("");

            passwordField3.setText("");

        }else if (e.getSource() == button3){

            new Signup();

            setVisible(false);

        }

    }catch (Exception E){

        E.printStackTrace();

    }



}



public static void main(String[] args) {

    new Login();

}

}
```

3.SIGN IN CLASS CODE

```java
package bank.management.system;
```

```java
import javax.swing.*;

import java.awt.*;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

import java.sql.ResultSet;


public class Login extends JFrame implements ActionListener {

    JLabel label1, label2, label3;

    JTextField textField2;

    JPasswordField passwordField3;


    JButton button1,button2,button3;

    Login(){

        super("Bank Management System");

        ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icon/bank.png"));

        Image i2 = i1.getImage().getScaledInstance(100,100,Image.SCALE_DEFAULT);

        ImageIcon i3 = new ImageIcon(i2);

        JLabel image = new JLabel(i3);

        image.setBounds(350,10,100,100);

        add(image);


        ImageIcon ii1 = new ImageIcon(ClassLoader.getSystemResource("icon/card.png"));

        Image ii2 = ii1.getImage().getScaledInstance(100,100,Image.SCALE_DEFAULT);

        ImageIcon ii3 = new ImageIcon(ii2);
```

```java
JLabel iimage = new JLabel(ii3);

iimage.setBounds(630,350,100,100);

add(iimage);


label1 = new JLabel("WELCOME TO ATM");

label1.setForeground(Color.WHITE);

label1.setFont(new Font("AvantGarde", Font.BOLD, 38));

label1.setBounds(230,125,450,40);

add(label1);


label2 = new JLabel("Card No:");

label2.setFont(new Font("Ralway", Font.BOLD, 28));

label2.setForeground(Color.WHITE);

label2.setBounds(150,190,375,30);

add(label2);


textField2 = new JTextField(15);

textField2.setBounds(325,190,230,30);

textField2.setFont(new Font("Arial", Font.BOLD,14));

add(textField2);


label3 = new JLabel("PIN: ");

label3.setFont(new Font("Ralway", Font.BOLD, 28));

label3.setForeground(Color.WHITE);
```

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```java
label3.setBounds(150,250,375,30);

add(label3);


passwordField3 = new JPasswordField(15);

passwordField3.setBounds(325,250,230,30);

passwordField3.setFont(new Font("Arial", Font.BOLD, 14));

add(passwordField3);


button1 = new JButton("SIGN IN");

button1.setFont(new Font("Arial", Font.BOLD, 14));

button1.setForeground(Color.WHITE);

button1.setBackground(Color.BLACK);

button1.setBounds(300,300,100, 30);

button1.addActionListener(this);

add(button1);


button2 = new JButton("CLEAR");

button2.setFont(new Font("Arial", Font.BOLD, 14));

button2.setForeground(Color.WHITE);

button2.setBackground(Color.BLACK);

button2.setBounds(430,300,100, 30);

button2.addActionListener(this);

add(button2);
```

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```java
    button3 = new JButton("SIGN UP");

    button3.setFont(new Font("Arial", Font.BOLD, 14));

    button3.setForeground(Color.WHITE);

    button3.setBackground(Color.BLACK);

    button3.setBounds(300,350,230, 30);

    button3.addActionListener(this);

    add(button3);


    ImageIcon iii1 = new ImageIcon(ClassLoader.getSystemResource("icon/backbg.png"));

    Image iii2 = iii1.getImage().getScaledInstance(850,480,Image.SCALE_DEFAULT);

    ImageIcon iii3 = new ImageIcon(iii2);

    JLabel iiimage = new JLabel(iii3);

    iiimage.setBounds(0,0,850,480);

    add(iiimage);



    setLayout(null);

    setSize(850,480);

    setLocation(450,200);

    setUndecorated(true);

    setVisible(true);
  }


  @Override
```

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```java
public void actionPerformed(ActionEvent e) {

    try{

        if (e.getSource()==button1){

            Connn c = new Connn();

            String cardno = textField2.getText();

            String pin = passwordField3.getText();

            String q = "select * from login where card_number = '"+cardno+"' and  pin =
'"+pin+"'";

            ResultSet resultSet = c.statement.executeQuery(q);

            if (resultSet.next()){

                setVisible(false);

                new main_Class(pin);

            }else {

                JOptionPane.showMessageDialog(null,"Incorrect Card Number or PIN");

            }

    }else if (e.getSource() == button2){

            textField2.setText("");

            passwordField3.setText("");

        }else if (e.getSource() == button3){

            new Signup();

            setVisible(false);

        }

    }catch (Exception E){

        E.printStackTrace();

    }
```

```java
public static void main(String[] args) {

    new Login();

  }

}
```

4.CONNECTION CLASS CODE

```java
package bank.management.system;

import java.sql.*;

public class Connn {

  Connection connection;

  Statement statement;

  public Connn(){

    try{

      connection =
DriverManager.getConnection("jdbc:mysql://localhost:3306/bankSystem","root","AyushVish
");

      statement = connection.createStatement();

    }catch (Exception e){

      e.printStackTrace();

    }

  }

}
```

5.DATABASE CREATION CODE

use banksystem;

create table signup(form_no varchar(30),name varchar(30),father_name varchar(30),DOB varchar(30),gender varchar(30),email varchar(60),marital_status varchar(30),address varchar(60),city varchar(30),pincode varchar(30),state varchar(50));

select * from signup;

create table signuptwo(form_no varchar(30),religion varchar(30),category varchar(30),income varchar(30),education varchar(30),occupation varchar(30),pan varchar(30),aadhar varchar(60),seniorcitizen varchar(30),existing_account varchar(30));

select * from signuptwo;

create table signupthree(form_no varchar(30),account_Type varchar(40),card_number varchar(30),pin varchar(30),facility varchar(200));

select * from signupthree;

create table login(form_no varchar(30),card_number varchar(50),pin varchar(30));

select * from login;

create table bank(pin varchar(10),date varchar(50),type varchar(20),amount varchar(20));

select * from bank;

6.LOGIN CODE

use banksystem;

desc login;

INSERT INTO login (card_number, pin) VALUES ('1234567890', '1234');

select * from login;

select * from login;

select * from login;