**BANK MANAGEMENT SYSTEM**

A PROJECT REPORT

*Submitted by*

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*Under the guidance of*

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# Assistant Professor, Department of Networking and Communications *in partial fulfilment of the requirements for the degree of*

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

# with specialization in CYBER SECURITY AND DIGITAL

FORENSIC



## SRM INSTITUTE OF SCIENCE AND TECHNOLOGY,

KATTANKULATHUR- 603 203

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BONAFIDE CERTIFICATE

Certified that 21CSC203P project report titled **“BANK MANAGEMENT**

**SYSTEM”** is the bonafide work of **“Y.UMA VENKAT REDDY [RegNo:RA2112701010019]**

, who carried out the project work under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

|  |  |  |
| --- | --- | --- |
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### Subhashis Tripathy [RA2112703010020] Ayyappa Reddy [RA2112703010030] CM.Nirmal [RA2112703010011]

Department of Networking and Communications **SRM Institute of Science & Technology**

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**Student Name :** Subhashis Tripathy, Ayyappa Reddy , Nirmal

**Registration Number :** RA2112703010030 and RA2112703010020 and RA2112703010011

**Title of Work :** Bank Management System

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## Abstract

The simplest software that you can work with is the one that allows you to deal with bank accounts and transactions regarding it. Designing a robust system that allows you to engage in transactions is something that every beginner should get started with. The proposed system is a web-based project that allows you to do everything a bank would allow you to do naturally.

One should be able to deposit money and withdraw money from a particular account as the user desires. There should be a validation to allow only a particular amount of cash inflows at any time, as well as to allow withdraws if the balance is sufficient. There should also be the calculation of interest and its addition to the balance every month.

There can be multiple improvements for this project, including adding support for multiple types of accounts. For example, there can be a recurring deposit account that should not allow withdrawals till the maturation date, and the amount is automatically added to the account post the maturation date.

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**CHAPTER 1**

## INTRODUCTION

The main objective of the project is to develop online Banking system for banks. In present system all banking work is done manually. User have to visit bank to Withdrawal or Deposit amount. In present bank system it is also difficult to find account information of account holder. In this bank management system we will automate all the banking process. In our bank management system user can check his balance online and he can also transfer money to other account online. In this Software you can keep record for daily Banking transactions. The main purpose of developing bank management system is to design an application, which could store bank data and provide an interface for retrieving customer related details with 100% accuracy.

This bank management system also allow user to add new customer account, delete account and user can also modify existing user account information. Using this system user can also search any individual account in few seconds. Using our bank management system user can also check any translation in any account. Our system also provide security check to reduce fraud. The system will check the user’s existence in the database and provide the set of services with respect to the role of the user.

**CHAPTER 2**

**PROJECT ANALYSIS**

### 2.1 PROBLEM STATEMENT

Keeping track the all activities and their record on paper and error . It is also very efficient and a time consuming process of observing continuous increase in number of client visiting the bank. Recording and maintaining all the client record highly unreliable.

### 2.2 PROPOSED OF PROJECT

* Helps in maintaining the computerized deposit and withdraw details.
* Easy attendance marking.
* Computerized Event Requests Management.
* Calculate the deposit money and withdraw money.
* Register new customer if anyone wants to open account in bank through online mode.

### 2.3 ADVANTAGES

* Minimize handwritten work from Cashier to see the record of deposit-withdraw money
* It helps you to minimize your repeated works and take care of the complete functionality of deposit and withdraw department.
* It is a huge time saver and facilitates proper communication among the management, staff, and the Customers.
* Provide computerized system for maintaining records.
* Avoid Human storage with less computer memory.

### 2.4 Disadvantages

|  |  |
| --- | --- |
|  | Technology and ServiceInterruptions. |
|  | Security and Identity Theft Concerns. |
|  | Lack of Personal Banker Relationship. |
|  | Potential to Overspend. |
|  | A Limited Scope of Services. |
|  | | | |

**CHAPTER 3 OBJECTIVES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | The primary objective of the Bank Management System is to keep track of invoices, customers, deposit of money , and withdraw of money. It keeps track of all bank status related to deposit and withdraw and payments. | | |
|  | | There should be a validation to allow only a particular amount of cash inflows at any time, as well as to allow withdraws if the balance is sufficient. There should also be the calculation of interest and its addition to the balance every month. | | |
|  | | This program may reduce the manual processing time. | | |
|  | | | | | | |
| **CHAPTER 4**  **WORKING OF BANK MANAGEMENT SYSTEM**  **4.1 WORKING** | | | | | | |
|  | | The bank management system is a set of essential tools and processes that allow banks | | | | |
| and their credit institutions to carry out their functions. The components of the bank | | | | | | |
| management system may differ depending on the bank, but generally, the system includes | | | | | | |
| core banking to manage basic transactions, loans, mortgages, and payments accessible via | | | | | | |
| ATM, mobile banking, and branches. Other components that may be included are CRM | | | | | | |
| systems, Risk Management Systems, Human Resource Management Systems, and | | | | | | |
| Business Intelligence systems. | | | |  | | |
|  | | | |
|  | | The systemprovides the access to the customer to create an account, deposit/withdraw | | | | |
| the cash from his account, also to view reports of all accounts present**.** | | | | |  | |

### 4.2 System Requirements

The requirements for a bank management system provide a complete description of the system behavior and are based on the business expectations. The functioning of the system must comply with the laws and regulatory acts of the country. In the United States, for example, Consumer Financial Protection Bureau, Federal Reserve Board, Federal Deposit Insurance Corporation, and Financial Crimes Enforcement Network are the institutions that govern banking activities.

The key requirements that need to be offered by the Bank Management System can be classified into functional and non-functional requirements.

### 4.3 Functional Requirements

Functional Requirements describe the service that the banking management system must offer, they are subdivided into three access levels: Admin Mode, Teller Mode, and Customer Mode:

* Customer:
  1. Sign in with login and password.
  2. Update personal details.
  3. Change password.
  4. View balance.
  5. View personal history of transactions.
  6. Transfer money.
  7. Withdraw.
  8. Submit Cash.
* Teller:
  1. Sign in with login and password.
  2. Change password.
  3. Register new bank customers.
  4. View customer information.
  5. Manage customer accounts.
* Admin:
  1. Sign in with login and password.
  2. View manager and customer details.
  3. Add or update bank branch details.
  4. Add or update manager details.

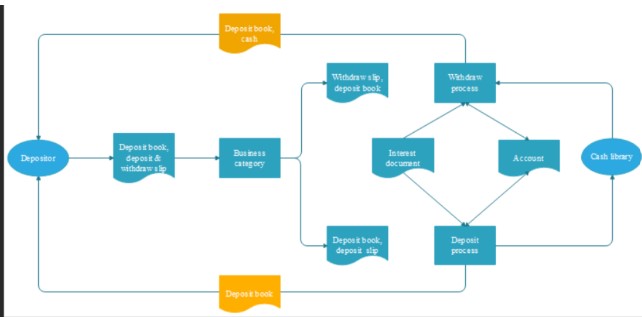
Functional Requirements describe the service that the banking management system must offer, they are subdivided into three access levels: Admin Mode, Teller Mode, and Customer Mode:

* Customer:
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  2. Update personal details.
  3. Change password.
  4. View balance.
  5. View personal history of transactions.
  6. Transfer money.
  7. Withdraw.
  8. Submit Cash.
* Teller:
  1. Sign in with login and password.
  2. Change password.
  3. Register new bank customers.
  4. View customer information.
  5. Manage customer accounts.
* Admin:
  1. Sign in with login and password.
  2. View manager and customer details.
  3. Add or update bank branch details.
  4. Add or update manager details.

**CHAPTER 5**

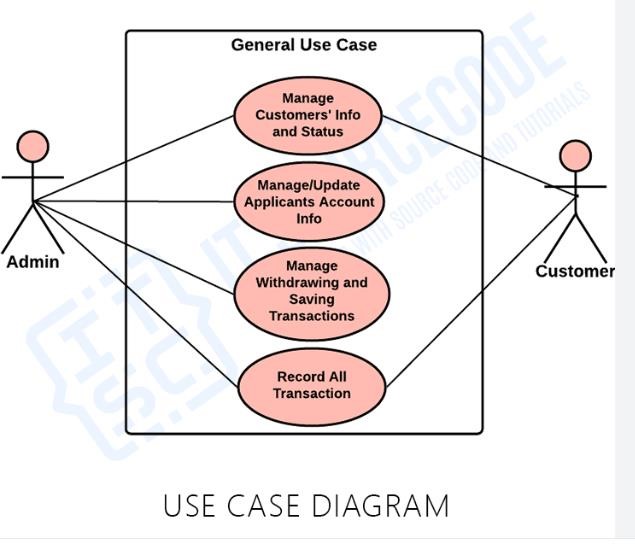
**DIAGRAMS**

|  |  |  |
| --- | --- | --- |
| **5.1** | | **ACTIVITY DIAGRAM** |
|  | |
|  | |
| **5.2** | | **ARCHITECTURE DIAGRAM: -** |

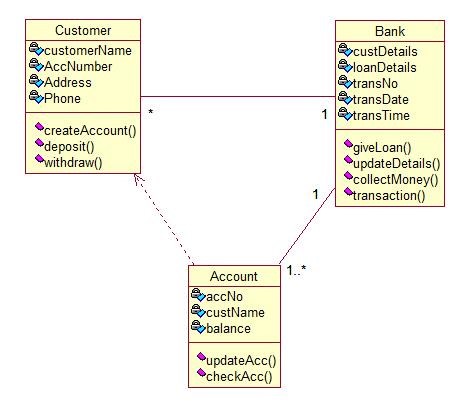


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| **5.3** | **USE CASE DIAGRAM: -** |



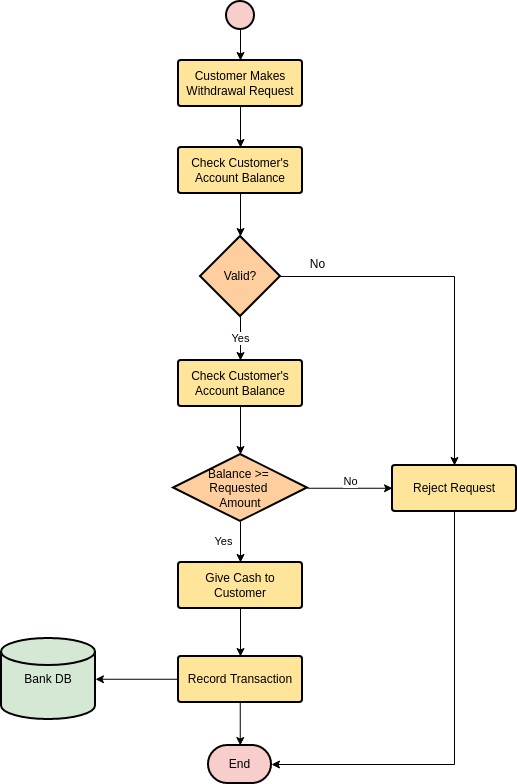
|  |  |
| --- | --- |
| **5.4** | **COMPONENT DIAGRAM** |



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**CHAPTER 6**

**FLOW CHART OF THIS PROJECT**



|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| **CHAPTER 7** | | | | | | | | | | | | | |
|  | | | | | **WORKING OF PROJECT** |  | | | | | | | |
|      | The bank management system is a set of essential tools and processes that allow | | | | | | | | | | |
| banks and their credit institutions to carry out their functions. The components of | | | | | | | | |  | |
| the bank management system may differ depending on the bank, but generally, the | | | | | | | | | | |
| system includes core banking to manage basic transactions, loans, mortgages, and | | | | | | | | | |  |
| payments accessible via ATM, mobile banking, and branches. Other components | | | | | | | | |  |
| that may be included are CRM systems, Risk Management Systems, Human | | | | | | |  | |
| Resource Management Systems, and Business Intelligence systems. | | | | |  | |
| The systemprovides the access to the customer to create an account, | | | | | |  |
| deposit/withdraw the cash from his account, also to view reports of all accounts | | | | | | | |  |
| present**.** | | Minimize handwritten work from Cashier to see the record of deposit-withdraw | | | | | |
| money. | |
|  | Through online mode we can receive money without ATM card in ATM as SBI develop a app call yono. | | | | | | | | | | |
|  | We can see history of deposit and withdraw transaction. | | | | | | | | | | |

* Provide computerized system for maintaining records.
* It helps you to minimize your repeated works and take care of the complete functionality of deposit and withdraw department.
* It is a huge time saver and facilitates proper communication among the management, staff, and the Customers.
* Avoid Human storage with less computer memory.

**CHAPTER 8**

**SQL COMMANDS**

MySql Setup for Bank Management System Project in Java

1. Create a database -- Creating database create database bank;
2. Select the database -- Selecting the database use bank;
3. Create a customer table -- Creating customer table create table customer ( id int primary key, customer\_id varchar(25), customer\_name varchar(10), branch varchar(13), city varchar(25), phone varchar(20)

);

1. Create an account table -- Create account table create table account ( id int primary key, account\_id varchar(25), customer\_id varchar(25), int balance

);

1. Create an admin table

-- Create admin table

create table admin ( cust\_id varchar(25), password varchar(25)

);

1. Insert some values in the admin table -- Inserting values insert into admin values ("admin1","1234"), ("admin2","9876");

**CHAPTER 10**

**APPENDICES**

|  |
| --- |
|  |

### APPENDIX 1: - Login module

This module helps to make a login page so that the user can enter the user name and password to enter into the bank management system in java. Name the file login.java.

SOURCE CODE FOR LOGIN PAGE

package bank; import java.sql.Connection; import java.sql.DriverManager; import java.sql.PreparedStatement; import java.sql.ResultSet; import javax.swing.JOptionPane; import javax.swing.table.DefaultTableModel; public class login extends javax.swing.JFrame { public login() { initComponents();

}

@SuppressWarnings("unchecked")

// <editor-fold defaultstate="collapsed" desc="Generated Code"> private void initComponents() { jPanel1 = new javax.swing.JPanel(); jLabel1 = new javax.swing.JLabel(); jLabel2 = new javax.swing.JLabel();

txtuser = new javax.swing.JTextField(); txtpass = new javax.swing.JPasswordField(); jButton1 = new javax.swing.JButton(); jButton2 = new javax.swing.JButton(); jLabel3 = new javax.swing.JLabel(); setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE);

setTitle("Login"); setBackground(new java.awt.Color(0, 102, 255)); setForeground(new java.awt.Color(0, 102, 255)); jPanel1.setBorder(javax.swing.BorderFactory.createTitledBorder("Login")); jLabel1.setText("Username"); jLabel2.setText("Password"); jButton1.setText("Login"); jButton1.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) { jButton1ActionPerformed(evt);

}

});

jButton2.setText("Cancel"); jButton2.addMouseListener(new java.awt.event.MouseAdapter() { public void mouseClicked(java.awt.event.MouseEvent evt) { jButton2MouseClicked(evt);

}

});

Connection con1;

PreparedStatement insert; ResultSet rs1; public void load()

{ try {

Class.forName("com.mysql.jdbc.Driver"); con1 = DriverManager.getConnection("jdbc:mysql://localhost/customer","root","");

insert = con1.prepareStatement("SELECT \* FROM user WHERE username=? and

password=? "); insert.setString(1, txtuser.getText()); insert.setString(2,txtpass.getText()); rs1=insert.executeQuery(); if(rs1.next())

{

mainmenu c = new mainmenu();

this.hide();

c.setVisible(true); } else

{

JOptionPane.showMessageDialog(null, "Username and password do not matched");

txtuser.setText("");

txtpass.setText(""); txtuser.requestFocus();

}

} catch (Exception e) {

System.out.println("Failed " + e);

}

}

#### OUTPUT: -



When the entered user name and password didn’t match the existing records in the database, it will return the “Username and password do not matched”.



#### APPENDIX 2: - ACCOUNT DETAILS MODULE

In this module, we can create a new account for customers.

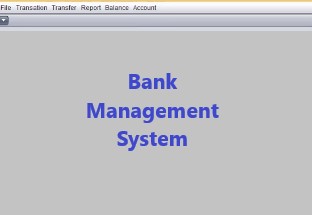
SOURCE CODE

package bank; import java.awt.event.KeyEvent; import java.sql.Connection; import java.sql.DriverManager; import java.sql.PreparedStatement; import java.sql.ResultSet; import java.sql.SQLException; import java.sql.Statement; import java.util.logging.Level; import java.util.logging.Logger; import javax.swing.JOptionPane; public class account extends javax.swing.JInternalFrame { public account() { initComponents(); autoId();

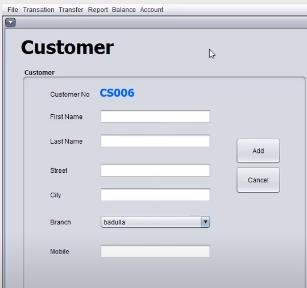
|  |
| --- |
| }  Connection con1;  PreparedStatement insert;  ResultSet rs1;  @SuppressWarnings("unchecked") private void initComponents() { txtbal = new javax.swing.JTextField(); jPanel1 = new javax.swing.JPanel(); jLabel3 = new javax.swing.JLabel(); jLabel1 = new javax.swing.JLabel(); txtcust = new javax.swing.JTextField(); jLabel2 = new javax.swing.JLabel(); txtfname = new javax.swing.JTextField(); jLabel7 = new javax.swing.JLabel(); jLabel8 = new javax.swing.JLabel(); jButton2 = new javax.swing.JButton(); jComboBox1 = new javax.swing.JComboBox<>(); jLabel4 = new javax.swing.JLabel(); jButton3 = new javax.swing.JButton(); txtbal.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) { txtbalActionPerformed(evt);  }  });  jPanel1.setBorder(javax.swing.BorderFactory.createTitledBorder("Account")); jLabel3.setText("Account type"); |

|  |
| --- |
| jLabel1.setText("Customer ID"); txtcust.addKeyListener(new java.awt.event.KeyAdapter() { public void keyPressed(java.awt.event.KeyEvent evt) { txtcustKeyPressed(evt);  }  });  jLabel2.setText("Custmer Name"); jLabel7.setText("Account No"); jLabel8.setFont(new java.awt.Font("Tahoma", 1, 20)); jLabel8.setForeground(new java.awt.Color(0, 102, 255)); jLabel8.setText("jLabel8"); jButton2.setText("Cancel"); jButton2.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) { jButton2ActionPerformed(evt);  }  });  jComboBox1.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] {  "Saving", "Fix", "Current" })); jLabel4.setText("Balance"); jButton3.setText("Add"); jButton3.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) { jButton3ActionPerformed(evt);  }  }); |

|  |
| --- |
| public void autoId()  { try {  Class.forName("com.mysql.jdbc.Driver"); con1 = DriverManager.getConnection("jdbc:mysql://localhost/customer","root","");  Statement s = con1.createStatement();  ResultSet rs = s.executeQuery("SELECT MAX(acc\_id) FROM account");  rs.next(); rs.getString("MAX(acc\_id)"); if (rs.getString("MAX(acc\_id)") == null) { jLabel8.setText("A0001");    } else {  long id = Long.parseLong(rs.getString("MAX(acc\_id)").substring(2, rs.getString("MAX(acc\_id)").length()));  id++;  jLabel8.setText("A0" + String.format("%03d", id));  }  } catch (Exception ex) { ex.printStackTrace();  }  }  **OUTPUT :** |



We have to enter the required details to create a new account for the customer.



|  |
| --- |
|  |

### APPENDIX 3: - View Balance Module

In this module, we can check the balance of our account by entering the required details. Name the file as **balance.java**

SOURCE CODE

package bank; import java.sql.Connection; import java.sql.DriverManager; import java.sql.PreparedStatement; import java.sql.ResultSet;

import java.sql.SQLException; import java.time.LocalDateTime; import java.time.format.DateTimeFormatter; import java.util.logging.Level; import java.util.logging.Logger; import javax.swing.JOptionPane; public class balance extends javax.swing.JInternalFrame { public balance() { initComponents();

}

Connection con1;

PreparedStatement insert;

PreparedStatement insert2;

ResultSet rs1;

@SuppressWarnings("unchecked") private void initComponents() { jLabel4 = new javax.swing.JLabel(); lbal = new javax.swing.JLabel(); jLabel2 = new javax.swing.JLabel(); jLabel3 = new javax.swing.JLabel(); jPanel1 = new javax.swing.JPanel(); jLabel1 = new javax.swing.JLabel(); txtaccno = new javax.swing.JTextField(); jButton1 = new javax.swing.JButton(); jLabel7 = new javax.swing.JLabel(); jButton3 = new javax.swing.JButton(); jLabel9 = new javax.swing.JLabel(); jLabel5 = new javax.swing.JLabel(); jLabel6 = new javax.swing.JLabel(); jLabel4.setFont(new java.awt.Font("Tahoma", 1, 12)); jLabel4.setText("Balance"); lbal.setFont(new java.awt.Font("Tahoma", 1, 36)); lbal.setForeground(new java.awt.Color(0, 51, 204)); lbal.setText("Balance"); jPanel1.setBorder(javax.swing.BorderFactory.createTitledBorder("Account No")); jLabel1.setFont(new java.awt.Font("Tahoma", 1, 14)); jLabel1.setText("Enter the Acccount No"); jButton1.setText("Find"); jButton1.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) { jButton1ActionPerformed(evt);

}

});

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1); jPanel1.setLayout(jPanel1Layout); jPanel1Layout.setHorizontalGroup( jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING) .addGroup(jPanel1Layout.createSequentialGroup()

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADI NG)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADI NG)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(43, 43, 43)

.addComponent(jLabel1))

.addGroup(jPanel1Layout.createSequentialGroup()

.addContainerGap()

.addComponent(txtaccno,

javax.swing.GroupLayout.PREFERRED\_SIZE, 239, javax.swing.GroupLayout.PREFERRED\_SIZE)))

.addGap(0, 12, Short.MAX\_VALUE))

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()

.addGap(0, 0, Short.MAX\_VALUE)

.addComponent(jButton1)))

.addContainerGap())

);

jPanel1Layout.setVerticalGroup( jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup()

.addContainerGap()

.addComponent(jLabel1)

.addGap(18, 18, 18)

.addComponent(txtaccno, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 18, Short.MAX\_VALUE)

.addComponent(jButton1))

);

jLabel7.setFont(new java.awt.Font("Tahoma", 1, 18)); jLabel7.setText("Customer ID"); jButton3.setText("Cancel"); jButton3.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) { jButton3ActionPerformed(evt);

}

});

jLabel9.setText("Customer ID"); jLabel5.setFont(new java.awt.Font("Tahoma", 1, 18)); jLabel5.setText("Firstname"); jLabel6.setFont(new java.awt.Font("Tahoma", 1, 18)); jLabel6.setText("Lastname"); pack();

}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {//GENFIRST:event\_jButton1ActionPerformed

String accno = txtaccno.getText();

try {

Class.forName("com.mysql.jdbc.Driver"); con1 = DriverManager.getConnection("jdbc:mysql://localhost/customer","root","");

insert = con1.prepareStatement("select c.cust\_id,c.firstname,c.lastname,a.balance from customer c,account a where c.cust\_id = a.cust\_id and a.acc\_id = ?"); insert.setString(1, accno); rs1 = insert.executeQuery(); if(rs1.next() == false)

{

JOptionPane.showMessageDialog(null,"Account No no found");

jLabel5.setText(""); jLabel6.setText(""); lbal.setText("");

} else

{

String id = rs1.getString(1);

String firstname = rs1.getString(2);

String laststname = rs1.getString(3); String balance = rs1.getString(4); jLabel7.setText(id.trim()); jLabel5.setText(firstname.trim()); jLabel6.setText(laststname.trim()); lbal.setText(balance.trim());

}

} catch (ClassNotFoundException ex) {

Logger.getLogger(balance.class.getName()).log(Level.SEVERE, null, ex);

} catch (SQLException ex) {

Logger.getLogger(balance.class.getName()).log(Level.SEVERE, null, ex);

}

}



### APPENDIX4: - Deposit Money Module

In this module, we can add money to our account. Name the file as **deposit.java** package bank; import java.sql.Connection; import java.sql.DriverManager; import java.sql.PreparedStatement; import java.sql.ResultSet; import java.sql.SQLException; import java.time.LocalDateTime;

import java.time.format.DateTimeFormatter; import java.util.logging.Level; import java.util.logging.Logger; import javax.swing.JOptionPane;

public class deposit extends javax.swing.JInternalFrame { public deposit() { initComponents(); date();

}

private void initComponents() { jButton3 = new javax.swing.JButton(); jLabel9 = new javax.swing.JLabel(); jLabel4 = new javax.swing.JLabel(); lbal = new javax.swing.JLabel(); jLabel2 = new javax.swing.JLabel(); jLabel3 = new javax.swing.JLabel(); jPanel1 = new javax.swing.JPanel(); jLabel1 = new javax.swing.JLabel(); txtaccno = new javax.swing.JTextField(); jButton1 = new javax.swing.JButton(); txtfname = new javax.swing.JTextField(); txtlame = new javax.swing.JTextField(); jLabel5 = new javax.swing.JLabel(); amount = new javax.swing.JTextField(); jButton2 = new javax.swing.JButton(); jLabel6 = new javax.swing.JLabel(); jLabel7 = new javax.swing.JLabel(); jButton4 = new javax.swing.JButton(); jLabel10 = new javax.swing.JLabel(); jLabel11 = new javax.swing.JLabel(); jButton3.setText("Cancel");

jButton3.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) { jButton3ActionPerformed(evt);

}

});

jLabel9.setText("Customer ID");

jLabel4.setFont(new java.awt.Font("Tahoma", 1, 12)); jLabel4.setText("Balance");

lbal.setFont(new java.awt.Font("Tahoma", 1, 24)); lbal.setForeground(new java.awt.Color(0, 51, 204)); lbal.setText("Balance"); jLabel2.setText("Firstname"); jLabel3.setText("Lastname");

jPanel1.setBorder(javax.swing.BorderFactory.createTitledBorder("Account No")); jLabel1.setFont(new java.awt.Font("Tahoma", 1, 14)); jLabel1.setText("Enter the Acccount No"); jButton1.setText("Find");

jButton1.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) { jButton1ActionPerformed(evt);

}

});

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1); jPanel1.setLayout(jPanel1Layout); jPanel1Layout.setHorizontalGroup(

jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup() .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADI NG)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADI NG)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(43, 43, 43)

.addComponent(jLabel1))

.addGroup(jPanel1Layout.createSequentialGroup()

.addContainerGap()

.addComponent(txtaccno,

javax.swing.GroupLayout.PREFERRED\_SIZE, 239, javax.swing.GroupLayout.PREFERRED\_SIZE)))

.addGap(0, 12, Short.MAX\_VALUE))

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()

.addGap(0, 0, Short.MAX\_VALUE)

.addComponent(jButton1)))

.addContainerGap())

);

jPanel1Layout.setVerticalGroup(

jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup()

.addContainerGap()

.addComponent(jLabel1)

.addGap(18, 18, 18)

.addComponent(txtaccno, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 18, Short.MAX\_VALUE)

.addComponent(jButton1))

);

jLabel5.setFont(new java.awt.Font("Tahoma", 1, 12)); jLabel5.setText("Deposit");

amount.setBackground(new java.awt.Color(172, 3, 3)); amount.setFont(new java.awt.Font("Tahoma", 1, 24)); amount.setForeground(new java.awt.Color(255, 255, 255)); jButton2.setText("OK");

jButton2.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) { jButton2ActionPerformed(evt);

}

});

jLabel6.setFont(new java.awt.Font("Tahoma", 1, 18)); jLabel6.setText("jLabel6");

jLabel7.setFont(new java.awt.Font("Tahoma", 1, 18)); jLabel7.setText("jLabel7"); jButton4.setText("Cancel");

jButton4.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) { jButton4ActionPerformed(evt);

}

});

jLabel10.setText("Customer ID"); jLabel11.setText("Date");

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane()); getContentPane().setLayout(layout); layout.setHorizontalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING) .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addContainerGap()

.addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGroup(layout.createSequentialGroup()

.addGap(36, 36, 36)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addComponent(jLabel2)

.addGap(18, 18, 18)

.addComponent(txtfname,

javax.swing.GroupLayout.PREFERRED\_SIZE, 156, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGroup(layout.createSequentialGroup()

.addComponent(jLabel10)

.addGap(18, 18, 18)

.addComponent(jLabel7))

.addGroup(layout.createSequentialGroup()

.addComponent(jLabel3)

.addGap(18, 18, 18)

.addComponent(txtlame, javax.swing.GroupLayout.PREFERRED\_SIZE,

156, javax.swing.GroupLayout.PREFERRED\_SIZE)))))

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING) .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING) .addGroup(layout.createSequentialGroup()

.addGap(82, 82, 82)

.addComponent(jLabel4))

.addGroup(layout.createSequentialGroup()

.addGap(120, 120, 120)

.addComponent(jLabel5))

.addGroup(layout.createSequentialGroup()

.addGap(60, 60, 60)

.addComponent(lbal)))

.addContainerGap(javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE))

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 77, Short.MAX\_VALUE)

.addComponent(amount, javax.swing.GroupLayout.PREFERRED\_SIZE, 158, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGap(67, 67, 67))))

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()

.addGap(40, 40, 40)

.addComponent(jLabel11)

.addGap(47, 47, 47)

.addComponent(jLabel6)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

.addComponent(jButton2, javax.swing.GroupLayout.PREFERRED\_SIZE, 89, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGap(18, 18, 18)

.addComponent(jButton4, javax.swing.GroupLayout.PREFERRED\_SIZE, 82, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGap(17, 17, 17))

);

layout.setVerticalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING) .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addGap(39, 39, 39)

.addComponent(jLabel4)

.addGap(34, 34, 34)

.addComponent(lbal))

.addGroup(layout.createSequentialGroup()

.addContainerGap()

.addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel7)

.addComponent(jLabel10))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED))

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()

.addComponent(jLabel5)

.addGap(14, 14, 14))) .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(amount, javax.swing.GroupLayout.PREFERRED\_SIZE, 54, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(txtfname, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(jLabel2)))

.addGap(28, 28, 28)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel3)

.addComponent(txtlame, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 23, Short.MAX\_VALUE)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jButton2, javax.swing.GroupLayout.PREFERRED\_SIZE, 35, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(jButton4, javax.swing.GroupLayout.PREFERRED\_SIZE, 35, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(jLabel6, javax.swing.GroupLayout.PREFERRED\_SIZE, 14, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(jLabel11))

.addGap(28, 28, 28))

);

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {//GENFIRST:event\_jButton1ActionPerformed

String accno = txtaccno.getText(); try { Class.forName("com.mysql.jdbc.Driver");

con1 = DriverManager.getConnection("jdbc:mysql://localhost/customer","root",""); insert = con1.prepareStatement("select c.cust\_id,c.firstname,c.lastname,a.balance from customer c,account a where c.cust\_id = a.cust\_id and a.acc\_id = ?"); insert.setString(1, accno); rs1 = insert.executeQuery(); if(rs1.next() == false)

{

JOptionPane.showMessageDialog(null,"Account No no found"); txtfname.setText(""); txtlame.setText(""); lbal.setText("");

} else

{

String id = rs1.getString(1);

String firstname = rs1.getString(2);

String laststname = rs1.getString(3); String balance = rs1.getString(4); jLabel7.setText(id.trim()); txtfname.setText(firstname.trim()); txtlame.setText(laststname.trim()); lbal.setText(balance.trim());

}

} catch (ClassNotFoundException ex) {

Logger.getLogger(deposit.class.getName()).log(Level.SEVERE, null, ex);

} catch (SQLException ex) {

Logger.getLogger(deposit.class.getName()).log(Level.SEVERE, null, ex);

}

}

public void date()

{

DateTimeFormatter dtf = DateTimeFormatter.ofPattern("yyyy/MM/dd");

LocalDateTime now = LocalDateTime.now(); String date = dtf.format(now); jLabel6.setText(date);

}



After giving the necessary details, the amount gets deposited in the corresponding account and the following message is shown.



### APPENDIX5: - Withdraw money module

In this module, we can withdraw money from our account in the bank management system java. Name the file as **withdraw.java**

SOURCE CODE

package bank; import java.sql.Connection; import java.sql.DriverManager; import java.sql.PreparedStatement; import java.sql.ResultSet; import java.sql.SQLException; import java.time.LocalDateTime; import java.time.format.DateTimeFormatter; import java.util.logging.Level; import java.util.logging.Logger; import javax.swing.JOptionPane; public class withdraw extends javax.swing.JInternalFrame { public withdraw() { initComponents(); date();}

Connection con1;

PreparedStatement insert;

PreparedStatement insert2; ResultSet rs1; private void initComponents() { jLabel4 = new javax.swing.JLabel(); lbal = new javax.swing.JLabel(); jLabel2 = new javax.swing.JLabel(); jLabel3 = new javax.swing.JLabel(); jPanel1 = new javax.swing.JPanel(); jLabel1 = new javax.swing.JLabel(); txtaccno = new javax.swing.JTextField(); jButton1 = new javax.swing.JButton(); txtfname = new javax.swing.JTextField(); txtlame = new javax.swing.JTextField(); jLabel5 = new javax.swing.JLabel(); amount = new javax.swing.JTextField(); jButton2 = new javax.swing.JButton(); jLabel6 = new javax.swing.JLabel(); jLabel7 = new javax.swing.JLabel(); jButton3 = new javax.swing.JButton(); jLabel8 = new javax.swing.JLabel(); jLabel9 = new javax.swing.JLabel(); jLabel4.setFont(new java.awt.Font("Tahoma", 1, 12)); jLabel4.setText("Balance"); lbal.setFont(new java.awt.Font("Tahoma", 1, 24)); lbal.setForeground(new java.awt.Color(0, 51, 204)); lbal.setText("Balance"); jLabel2.setText("Firstname"); jLabel3.setText("Lastname"); jPanel1.setBorder(javax.swing.BorderFactory.createTitledBorder("Account No")); jLabel1.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N jLabel1.setText("Enter the Acccount No"); jButton1.setText("Find");

jButton1.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) { jButton1ActionPerformed(evt);

}

});

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1); jPanel1.setLayout(jPanel1Layout); jPanel1Layout.setHorizontalGroup( jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING) .addGroup(jPanel1Layout.createSequentialGroup()

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADI NG)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADI NG)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(43, 43, 43)

.addComponent(jLabel1))

.addGroup(jPanel1Layout.createSequentialGroup()

.addContainerGap()

.addComponent(txtaccno,

javax.swing.GroupLayout.PREFERRED\_SIZE, 239, javax.swing.GroupLayout.PREFERRED\_SIZE)))

.addGap(0, 12, Short.MAX\_VALUE)) .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()

.addGap(0, 0, Short.MAX\_VALUE)

.addComponent(jButton1)))

.addContainerGap())

);

jPanel1Layout.setVerticalGroup( jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup()

.addContainerGap()

.addComponent(jLabel1)

.addGap(18, 18, 18)

.addComponent(txtaccno, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 18, Short.MAX\_VALUE)

.addComponent(jButton1))

);

jLabel5.setFont(new java.awt.Font("Tahoma", 1, 12)); jLabel5.setText("Withdraw"); amount.setBackground(new java.awt.Color(172, 3, 3)); amount.setFont(new java.awt.Font("Tahoma", 1, 24)); amount.setForeground(new java.awt.Color(255, 255, 255)); jButton2.setText("OK");

jButton2.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) { jButton2ActionPerformed(evt);

}

});

jLabel6.setFont(new java.awt.Font("Tahoma", 1, 18)); jLabel6.setText("jLabel6"); jLabel7.setFont(new java.awt.Font("Tahoma", 1, 18)); jLabel7.setText("jLabel7"); jButton3.setText("Cancel"); jButton3.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) { jButton3ActionPerformed(evt);

}

});

jLabel8.setText("Date"); jLabel9.setText("Customer ID"); javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane()); getContentPane().setLayout(layout); layout.setHorizontalGroup( layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING) .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING) .addGroup(layout.createSequentialGroup()

.addContainerGap()

.addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addGap(42, 42, 42)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jLabel2)

.addComponent(jLabel3)

.addComponent(jLabel8))

.addGap(31, 31, 31))

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()

.addContainerGap()

.addComponent(jLabel9)

.addGap(18, 18, 18)))

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jLabel6)

.addComponent(txtlame, javax.swing.GroupLayout.PREFERRED\_SIZE,

156, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(txtfname, javax.swing.GroupLayout.PREFERRED\_SIZE, 156, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(jLabel7))))

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING) .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addGap(82, 82, 82)

.addComponent(jLabel4))

.addGroup(layout.createSequentialGroup()

.addGap(120, 120, 120)

.addComponent(jLabel5))

.addGroup(layout.createSequentialGroup()

.addGap(60, 60, 60)

.addComponent(lbal)))

.addContainerGap(javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE))

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 77, Short.MAX\_VALUE)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(amount, javax.swing.GroupLayout.PREFERRED\_SIZE, 158, javax.swing.GroupLayout.PREFERRED\_SIZE) .addGroup(layout.createSequentialGroup()

.addComponent(jButton2,

javax.swing.GroupLayout.PREFERRED\_SIZE, 89, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGap(18, 18, 18)

.addComponent(jButton3,

javax.swing.GroupLayout.PREFERRED\_SIZE, 82, javax.swing.GroupLayout.PREFERRED\_SIZE)))

.addGap(36, 36, 36))))

);

layout.setVerticalGroup( layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING) .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addGap(39, 39, 39)

.addComponent(jLabel4)

.addGap(34, 34, 34)

.addComponent(lbal))

.addGroup(layout.createSequentialGroup()

.addContainerGap()

.addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel7)

.addComponent(jLabel9))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED))

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()

.addComponent(jLabel5)

.addGap(14, 14, 14)))

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(amount, javax.swing.GroupLayout.PREFERRED\_SIZE, 54, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(txtfname, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(jLabel2)))

.addGap(24, 24, 24)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE) .addComponent(txtlame, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(jLabel3))

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jButton2, javax.swing.GroupLayout.PREFERRED\_SIZE, 35, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(jButton3, javax.swing.GroupLayout.PREFERRED\_SIZE, 35, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(47, 47, 47))

.addGroup(layout.createSequentialGroup()

.addGap(33, 33, 33)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel8)

.addComponent(jLabel6, javax.swing.GroupLayout.PREFERRED\_SIZE,

14, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addContainerGap(javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE))))

); pack();

}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {//GENFIRST:event\_jButton1ActionPerformed

String accno = txtaccno.getText();

try {

Class.forName("com.mysql.jdbc.Driver"); con1 = DriverManager.getConnection("jdbc:mysql://localhost/customer","root","");

insert = con1.prepareStatement("select c.cust\_id,c.firstname,c.lastname,a.balance from customer c,account a where c.cust\_id = a.cust\_id and a.acc\_id = ?"); insert.setString(1, accno); rs1 = insert.executeQuery(); if(rs1.next() == false)

{

JOptionPane.showMessageDialog(null,"Account No no found"); txtfname.setText(""); txtlame.setText(""); lbal.setText("");

} else

{

String id = rs1.getString(1);

String firstname = rs1.getString(2);

String laststname = rs1.getString(3); String balance = rs1.getString(4); jLabel7.setText(id.trim()); txtfname.setText(firstname.trim()); txtlame.setText(laststname.trim()); lbal.setText(balance.trim()); }

} catch (ClassNotFoundException ex) {

Logger.getLogger(withdraw.class.getName()).log(Level.SEVERE, null, ex); } catch (SQLException ex) {

Logger.getLogger(withdraw.class.getName()).log(Level.SEVERE, null, ex);} } public void date()

{

DateTimeFormatter dtf = DateTimeFormatter.ofPattern("yyyy/MM/dd");

LocalDateTime now = LocalDateTime.now(); String date = dtf.format(now); jLabel6.setText(date)}

OUTPUT:

-



After giving the necessary details, the amount gets deducted from the corresponding account and the following message is shown.



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**CHAPTER 11**

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5. [https://www.researchgate.net/publication/301293322\_Bank//](https://www.researchgate.net/publication/301293322_Bank/)

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