



A Project Report

On

Banking System Master project

By

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B.Tech

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Introduction:

Banks have traditionally been in the forefront of harnessing technology to improve their products, services and efficiency. They have, over a long time, been using electronic and telecommunication networks for delivering a wide range of value added products and services. The delivery channels include direct dial – up connections, private networks, public networks etc and the devices include telephone, Personal Computers including the Automated Teller Machines, etc. With the popularity of PCs, easy access to Internet and World Wide Web (WWW), Internet is increasingly used by banks as a channel for receiving instructions and delivering their products and services to their customers. This form of banking is generally referred to as Internet Banking, although the range of products and services offered by different banks vary widely both in their content and sophistication.

MODULE DESCRIPTION

- 1). Applicant registration
- 2). Deposit Money
- 3). Withdraw Money
- 4) Delete Account Holder
- 5). Search Customer
- 6) View Account Holder

Software Requirements:

FRONT END: HTML, JAVA SCRIPT

Technologies: CORE JAVA

DATABASE: SQL

Operating System: Windows XP/7/8/10

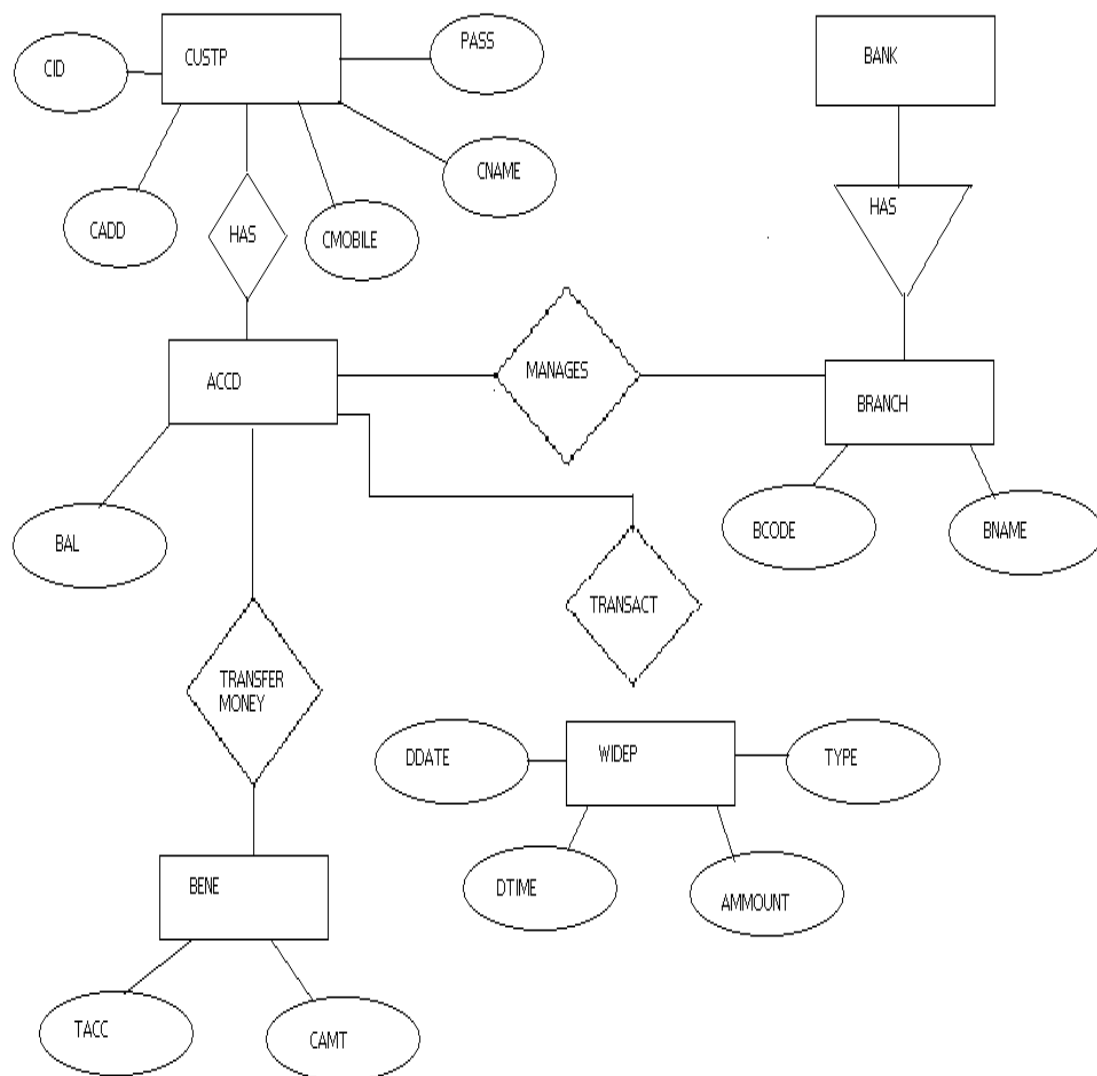
Hardware Requirements:

Processor: Intel Pentium based system

Processor speed: 250 MHz to 833MHz

RAM SPEED: 1GB

ERD (Entity Relationship Diagram):



CODE:

import java.awt.*;

import java.awt.event.*;

import javax.swing.*;

import java.io.*;

public class WithdrawMoney extends JFrame implements
ActionListener {

private JPanel jpWith = new JPanel();

private JLabel lbNo, lbName, lbDate, lbWithdraw;

private JTextField txtNo, txtName, txtWithdraw;

private JComboBox cboMonth, cboDay, cboYear;

private JButton btnSave, btnCancel;

private int recCount = 0;

private int rows = 0;

private int total = 0;

private int curr;

private int withdraw;

//String Type Array use to Load Records From File.

private String records[][] = new String [500][6];

private FileInputStream fis;

private DataInputStream dis;

WithdrawMoney () {

// super(Title, Resizable, Closable, Maximizable,
Iconifiable)

super ("Withdraw Money", false, true, false, true);

setSize (335, 235);

jpWith.setLayout (null);

lbNo = new JLabel ("Account No:");

lbNo.setForeground (Color.black);

```

lbNo.setBounds (15, 20, 80, 25);
lbName = new JLabel ("Person Name:");
lbName.setForeground (Color.black);
lbName.setBounds (15, 55, 80, 25);
lbDate = new JLabel ("With. Date:");
lbDate.setForeground (Color.black);
lbDate.setBounds (15, 90, 80, 25);
lbWithdraw = new JLabel ("With. Amount:");
lbWithdraw.setForeground (Color.black);
lbWithdraw.setBounds (15, 125, 80, 25);

txtNo = new JTextField ();
txtNo.setHorizontalAlignment (JTextField.RIGHT);
//Checking the Accunt No. Provided By User on Lost Focus
of the TextBox.
txtNo.addFocusListener (new FocusListener () {
    public void focusGained (FocusEvent e) {}
    public void focusLost (FocusEvent fe) {
        if (txtNo.getText().equals ("")) {}
        else {
            rows = 0;
            populateArray (); //Load All Existing
Records in Memory.
            findRec (); //Finding if Account
No. Already Exist or Not.
        }
    }
});
txtNo.setBounds (105, 20, 205, 25);

txtName = new JTextField ();
txtName.setEnabled (false);
txtName.setBounds (105, 55, 205, 25);
txtWithdraw = new JTextField ();
txtWithdraw.setHorizontalAlignment
(JTextField.RIGHT);
txtWithdraw.setBounds (105, 125, 205, 25);

```

//Restricting The User Input to only Numerics in Numeric
TextBoxes.

```
txtNo.addKeyListener (new KeyAdapter() {  
    public void keyTyped (KeyEvent ke) {  
        char c = ke.getKeyChar ();  
        if (!((Character.isDigit (c) || (c ==  
KeyEvent.VK BACK SPACE)))) {  
            getToolkit().beep ();  
            ke.consume ();  
        }  
    }  
});  
txtWithdraw.addKeyListener (new KeyAdapter() {  
    public void keyTyped (KeyEvent ke) {  
        char c = ke.getKeyChar ();  
        if (!((Character.isDigit (c) || (c ==  
KeyEvent.VK BACK SPACE)))) {  
            getToolkit().beep ();  
            ke.consume ();  
        }  
    }  
});
```

//Creating Date Option.

```
String Months[] = {"January", "February", "March",  
"April", "May", "June",  
"July", "August", "September", "October",  
"November", "December"};  
cboMonth = new JComboBox (Months);  
cboDay = new JComboBox ();  
cboYear = new JComboBox ();  
for (int i = 1; i <= 31; i++) {  
    String days = "" + i;  
    cboDay.addItem (days);  
}
```



```
for (int i = 2000; i <= 2015; i++) {  
String years = "" + i;  
cboYear.addItem (years);  
}  
  
//Aligning The Date Option Controls.  
cboMonth.setBounds (105, 90, 92, 25);  
cboDay.setBounds (202, 90, 43, 25);  
cboYear.setBounds (250, 90, 60, 25);  
  
//Aligning The Buttons.  
btnSave = new JButton ("Save");  
btnSave.setBounds (20, 165, 120, 25);  
btnSave.addActionListener (this);  
btnCancel = new JButton ("Cancel");  
btnCancel.setBounds (185, 165, 120, 25);  
btnCancel.addActionListener (this);  
  
//Adding the All the Controls to Panel.  
jpWith.add (lbNo);  
jpWith.add (txtNo);  
jpWith.add (lbName);  
jpWith.add (txtName);  
jpWith.add (lbDate);  
jpWith.add (cboMonth);  
jpWith.add (cboDay);  
jpWith.add (cboYear);  
jpWith.add (lbWithdraw);  
jpWith.add (txtWithdraw);  
jpWith.add (btnSave);  
jpWith.add (btnCancel);  
  
//Adding Panel to Window.  
getContentPane().add (jpWith);  
  
populateArray (); //Load All Existing Records in  
Memory.
```

```

//In the End Showing the New Account Window.
setVisible (true);

}

//Function use By Buttons of Window to Perform Action as User
Click Them.
public void actionPerformed (ActionEvent ae) {

Object obj = ae.getSource();

if (obj == btnSave) {
if (txtNo.getText().equals("")) {
JOptionPane.showMessageDialog (this, "Please!
Provide Id of Customer.",
"BankSystem - EmptyField",
JOptionPane.PLAIN MESSAGE);
txtNo.requestFocus();
}
else if (txtWithdraw.getText().equals("")) {
JOptionPane.showMessageDialog (this, "Please!
Provide Withdraw Amount.",
"BankSystem - EmptyField",
JOptionPane.PLAIN MESSAGE);
txtWithdraw.requestFocus ();
}
else {
withdraw = Integer.parseInt
(txtWithdraw.getText ());
if (curr == 0) {
JOptionPane.showMessageDialog (this,
txtName.getText () + " doesn't have any Amount in Balance.",
"BankSystem - EmptyAccount",
JOptionPane.PLAIN MESSAGE);
txtClear ();
}
else if (withdraw > curr) {
JOptionPane.showMessageDialog (this,

```

```

"Withdraw Amount can't greater than Actual Balance.",
"BankSystem - Large Amount",
JOptionPane.PLAIN MESSAGE);
txtWithdraw.setText ("");
txtWithdraw.requestFocus ();
}
else {
editRec ();//Update the Contents of Array.
}
}
}
if (obj == btnCancel) {
txtClear ();
setVisible (false);
dispose();
}
}

```

//Function use to load all Records from File when Application
Execute.

```

void populateArray () {
try {
fis = new FileInputStream ("Bank.dat");
dis = new DataInputStream (fis);
//Loop to Populate the Array.
while (true) {
for (int i = 0; i < 6; i++) {
records[rows][i] = dis.readUTF ();
}
rows++;
}
}
catch (Exception ex) {
total = rows;
if (total == 0) {
JOptionPane.showMessageDialog (null,

```

```

"Records File is Empty.\nEnter Records First to Display.",
"BankSystem - EmptyFile",
JOptionPane.PLAIN_MESSAGE);
        btnEnable ();
    }
    else {
        try {
            dis.close();
            fis.close();
        }
        catch (Exception exp) { }
    }
}
}
}
}
}

```

//Function use to Find Record by Matching the Contents of
Records Array with ID TextBox.

```

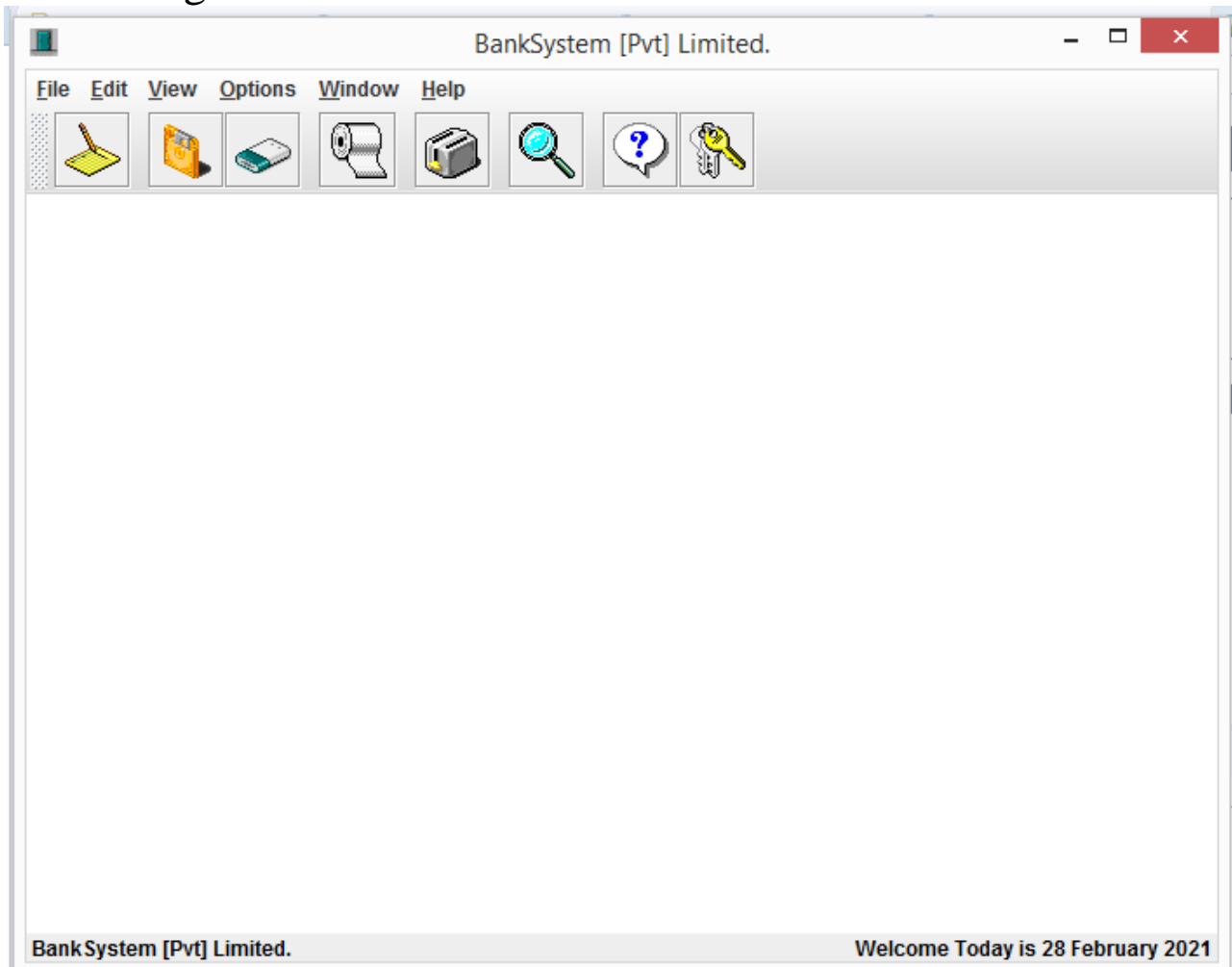
void findRec () {

    boolean found = false;
    for (int x = 0; x < total; x++) {
        if (records[x][0].equals (txtNo.getText())) {
            found = true;
            showRec (x);
            break;
        }
    }
    if (found == false) {
        String str = txtNo.getText ();
        txtClear ();
        JOptionPane.showMessageDialog (this, "Account No.
" + str + " doesn't Exist.",
        "BankSystem - WrongNo",
        JOptionPane.PLAIN_MESSAGE);
    }
}
}
}
}
}

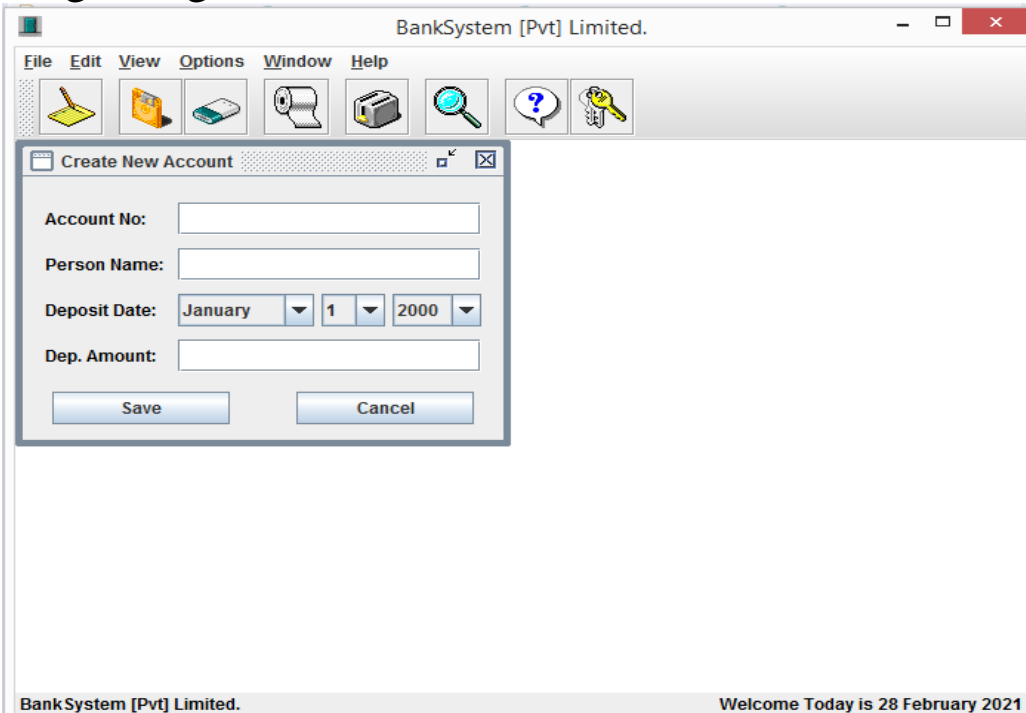
```

Screenshots :-

Home Page:-

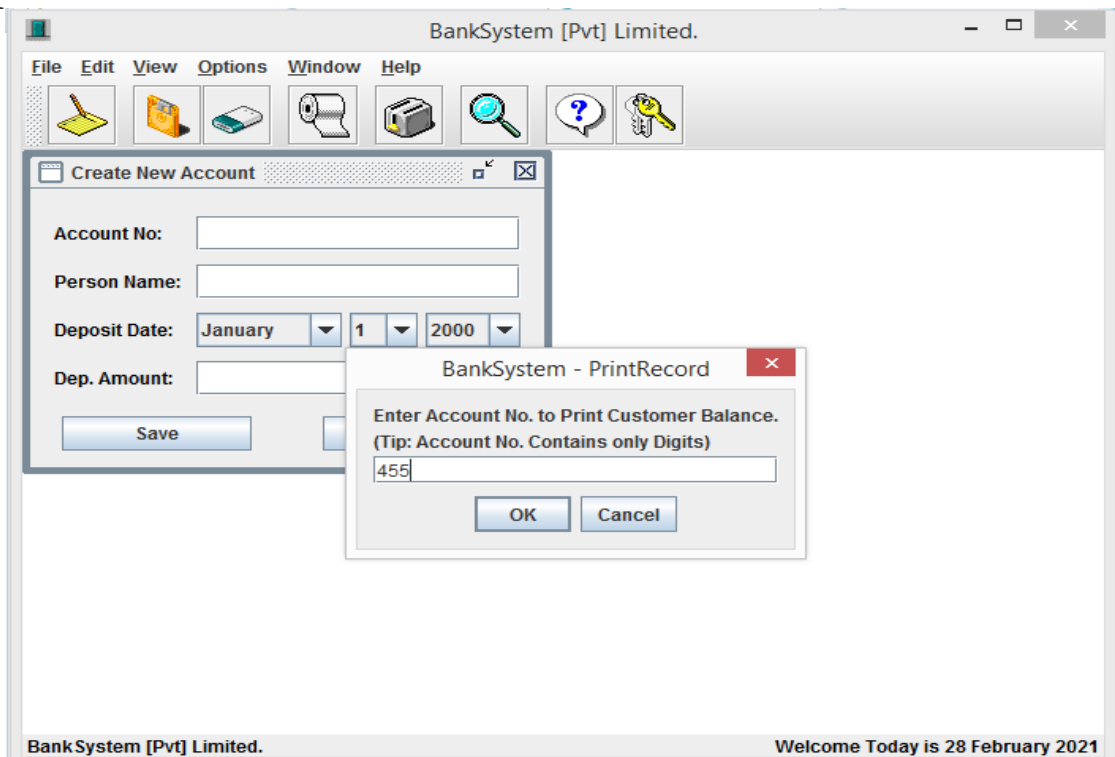


Login Page :-



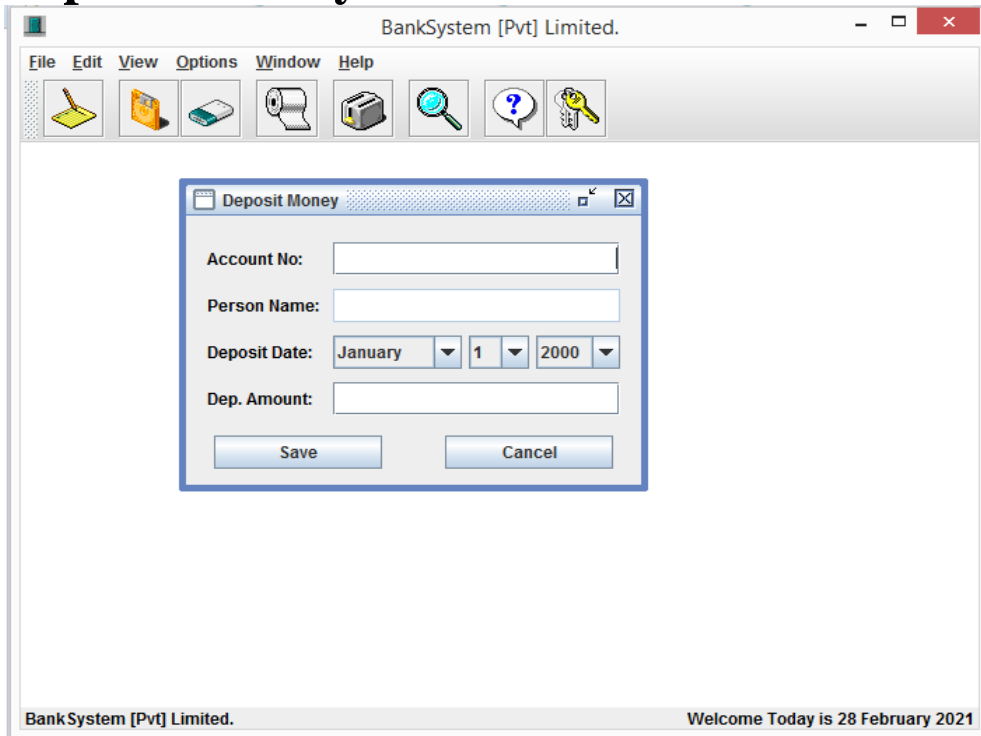
The screenshot shows the main window of the BankSystem [Pvt] Limited. application. The title bar reads "BankSystem [Pvt] Limited.". The menu bar includes "File", "Edit", "View", "Options", "Window", and "Help". The toolbar contains icons for a notepad, a folder, a floppy disk, a printer, a scanner, a magnifying glass, a question mark, and a key. A "Create New Account" dialog box is open, featuring the following fields: "Account No:" (text box), "Person Name:" (text box), "Deposit Date:" (dropdown menu showing "January", a spinner box showing "1", and a dropdown menu showing "2000"), and "Dep. Amount:" (text box). At the bottom of the dialog are "Save" and "Cancel" buttons. The status bar at the bottom of the main window displays "BankSystem [Pvt] Limited." on the left and "Welcome Today is 28 February 2021" on the right.

print record:



The screenshot shows the same BankSystem [Pvt] Limited. application window, but with a "BankSystem - PrintRecord" dialog box open. The dialog box has a title bar with a red close button. It contains the text "Enter Account No. to Print Customer Balance." followed by "(Tip: Account No. Contains only Digits)". Below this is a text input field containing the number "455". At the bottom of the dialog are "OK" and "Cancel" buttons. The "Create New Account" dialog box is still visible in the background, partially obscured by the "PrintRecord" dialog. The status bar at the bottom of the main window remains the same, showing "BankSystem [Pvt] Limited." and "Welcome Today is 28 February 2021".

Deposit money:

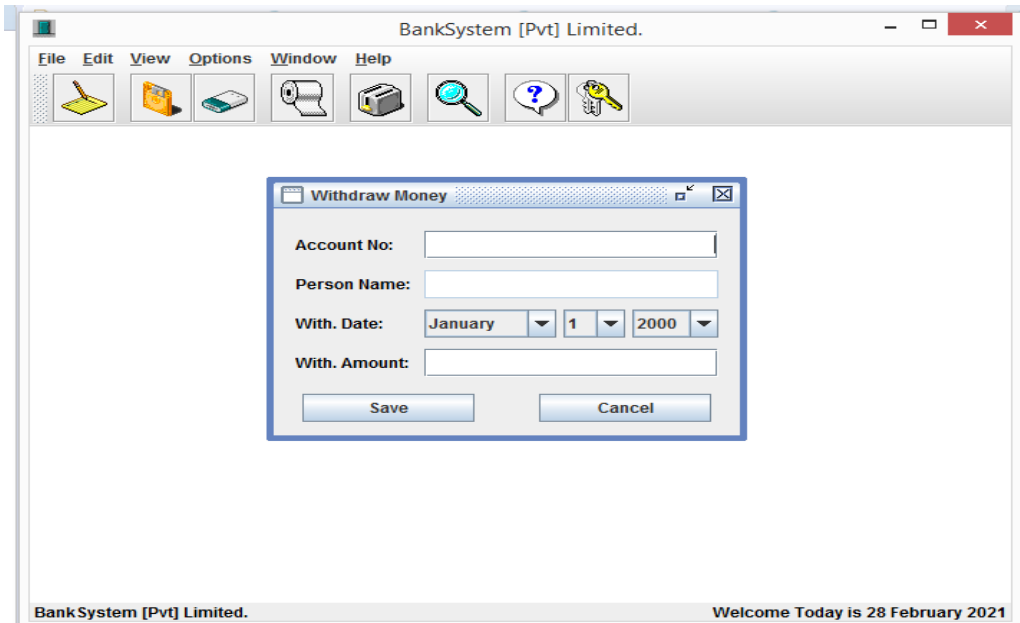


The image shows a screenshot of a software application window titled "BankSystem [Pvt] Limited.". The window has a menu bar with "File", "Edit", "View", "Options", "Window", and "Help". Below the menu bar is a toolbar with icons for a notepad, a folder, a floppy disk, a printer, a hard drive, a magnifying glass, a question mark, and a key. In the center of the window is a dialog box titled "Deposit Money". The dialog box contains the following fields: "Account No:" with a text input field, "Person Name:" with a text input field, "Deposit Date:" with three dropdown menus (Month, Day, Year) showing "January", "1", and "2000" respectively, and "Dep. Amount:" with a text input field. At the bottom of the dialog box are two buttons: "Save" and "Cancel". The status bar at the bottom of the main window displays "BankSystem [Pvt] Limited." on the left and "Welcome Today is 28 February 2021" on the right.

BankSystem [Pvt] Limited.

Welcome Today is 28 February 2021

withdraw money:



The image shows a screenshot of a software application window titled "BankSystem [Pvt] Limited.". The window has a menu bar with "File", "Edit", "View", "Options", "Window", and "Help". Below the menu bar is a toolbar with icons for a notepad, a folder, a floppy disk, a printer, a hard drive, a magnifying glass, a question mark, and a key. In the center of the window is a dialog box titled "Withdraw Money". The dialog box contains the following fields: "Account No:" with a text input field, "Person Name:" with a text input field, "With. Date:" with three dropdown menus (Month, Day, Year) showing "January", "1", and "2000" respectively, and "With. Amount:" with a text input field. At the bottom of the dialog box are two buttons: "Save" and "Cancel". The status bar at the bottom of the main window displays "BankSystem [Pvt] Limited." on the left and "Welcome Today is 28 February 2021" on the right.

BankSystem [Pvt] Limited.

Welcome Today is 28 February 2021

Delete Account Holder:

The screenshot shows the main window of the 'BankSystem [Pvt] Limited.' application. The title bar includes standard window controls (minimize, maximize, close) and the application name. The menu bar contains 'File', 'Edit', 'View', 'Options', 'Window', and 'Help'. Below the menu bar is a toolbar with icons for a notepad, a folder, a floppy disk, a printer, a scanner, a magnifying glass, a question mark, and a key. The main area of the window is mostly empty, with a small dialog box titled 'Delete Account Holder' centered on the screen. This dialog box has four text input fields labeled 'Account No:', 'Person Name:', 'Last Transaction:', and 'Balance:'. At the bottom of the dialog are two buttons: 'Delete' and 'Cancel'. The status bar at the bottom of the main window displays 'BankSystem [Pvt] Limited.' on the left and 'Welcome Today is 28 February 2021' on the right.

BankSystem [Pvt] Limited.

Welcome Today is 28 February 2021

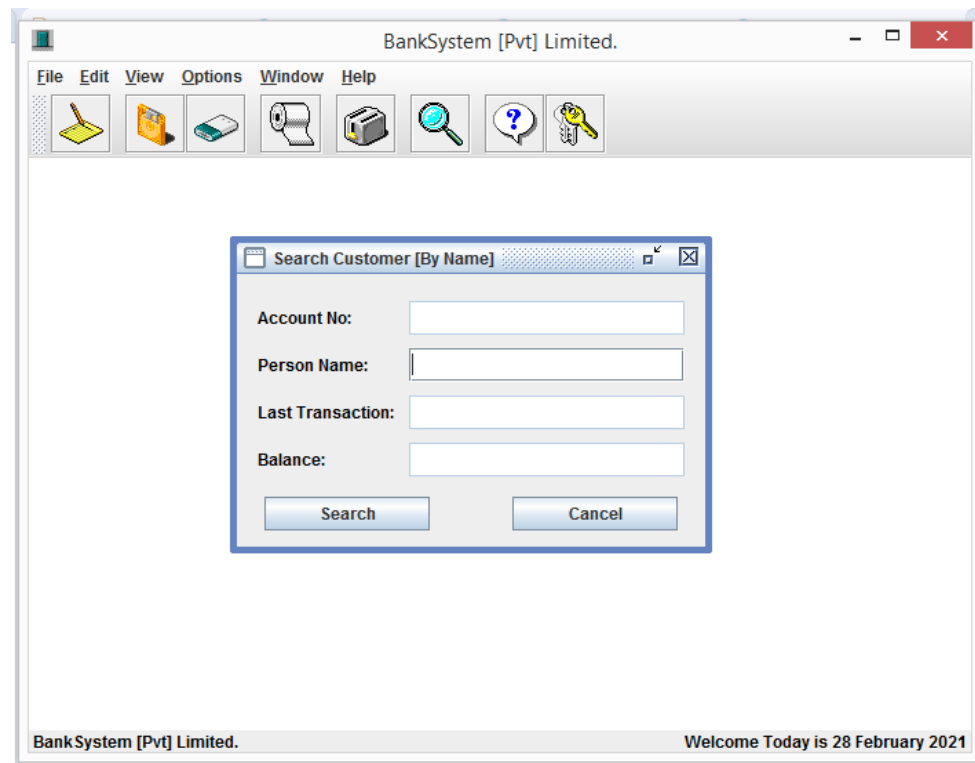
Search Customer:

The screenshot shows the same 'BankSystem [Pvt] Limited.' application window as above. The 'Delete Account Holder' dialog box is no longer present. Instead, a dialog box titled 'Search Customer [By No.]' is displayed. This dialog box contains the same four text input fields: 'Account No:', 'Person Name:', 'Last Transaction:', and 'Balance:'. At the bottom, the buttons are 'Search' and 'Cancel'. The status bar at the bottom of the main window remains the same, showing 'BankSystem [Pvt] Limited.' and 'Welcome Today is 28 February 2021'.

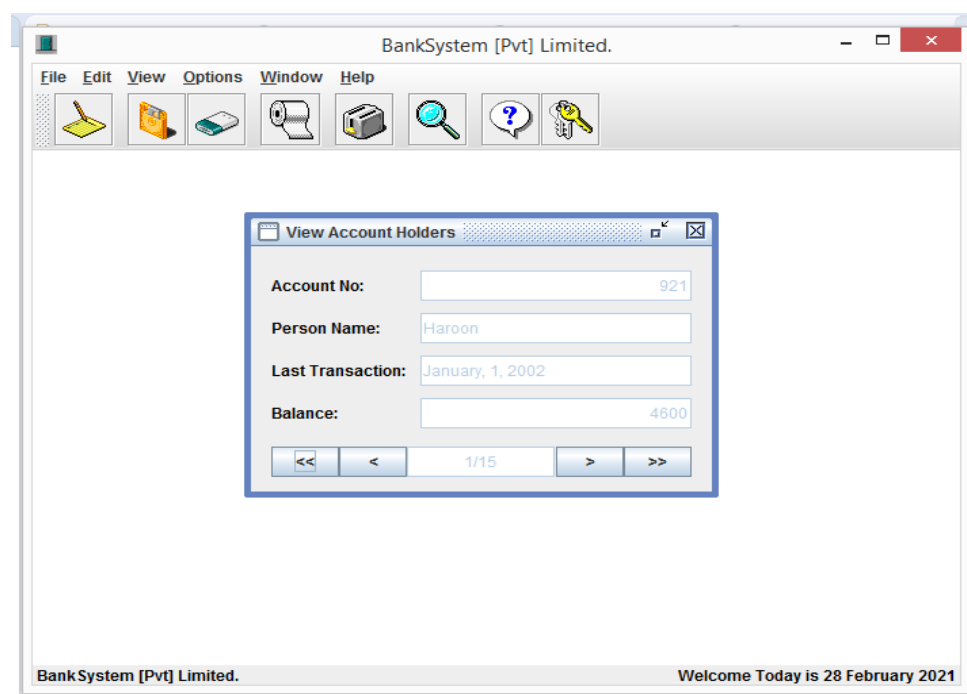
BankSystem [Pvt] Limited.

Welcome Today is 28 February 2021

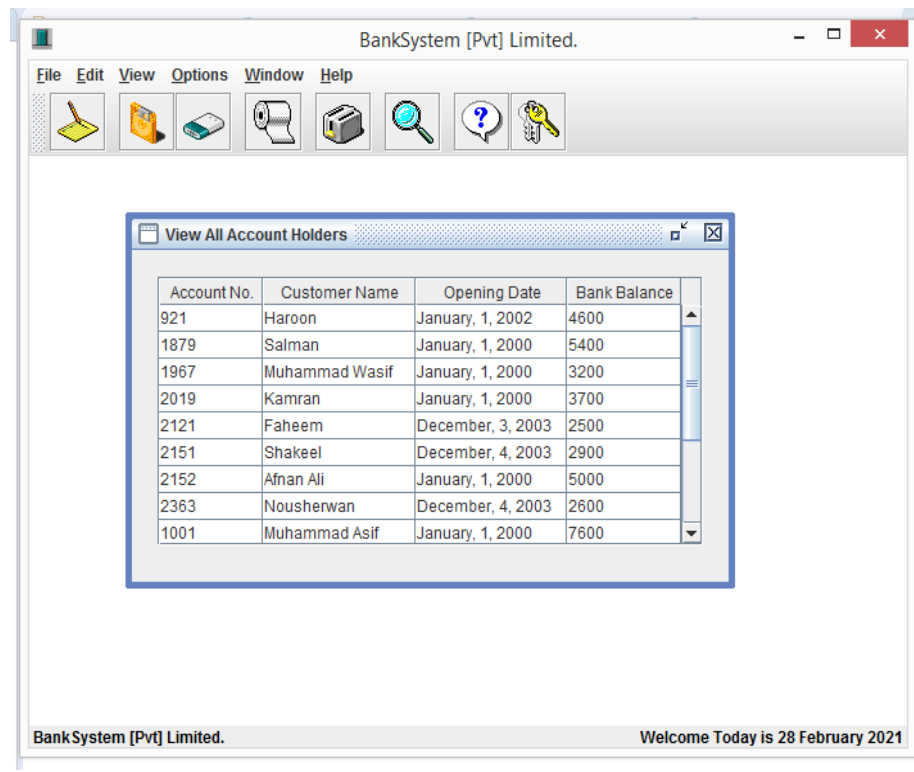
Search Customer By Name:



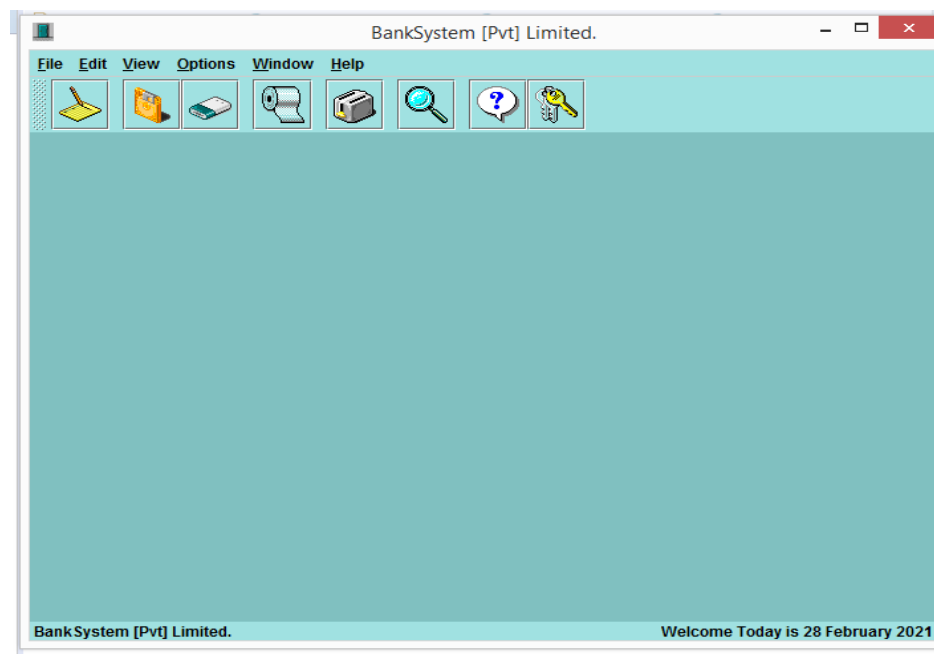
View Account Holders:



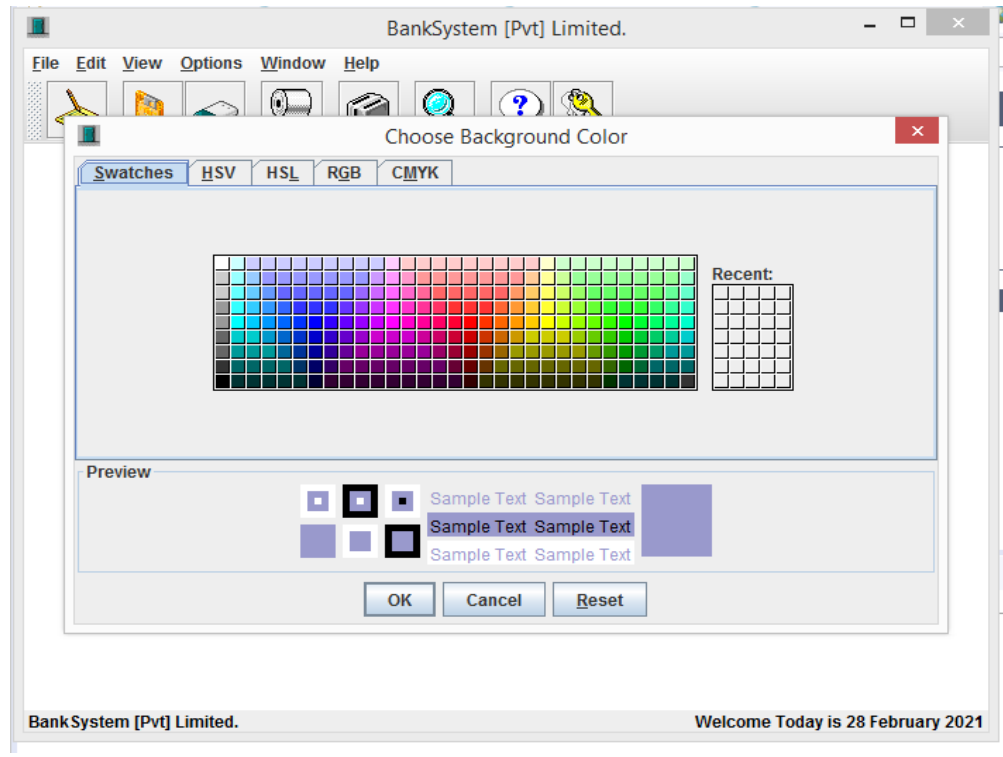
View All Account Holders:



Change color:



Choose Background C



SCOPE OF ENHANCEMENT

The system may be updated or modified owing to its simple structure. This can further be used for maintenance of the ACCOUNT details for the customers and make the transaction easy for the customers.

CONCLUSION

A INTERNET BANKING SYSYTEM has been developed and the system was tested with sample data.

The system results in regular timely preparations of required outputs. The system provides a user friendly environment for the customers to do banking without going to the bank itself, allows the facility like opening the new account, transferring the money and downloading the forms.