



**BJA 1034 - JAVA PROGRAMMING FUNDAMENTAL**

**ATM SIMULATOR**

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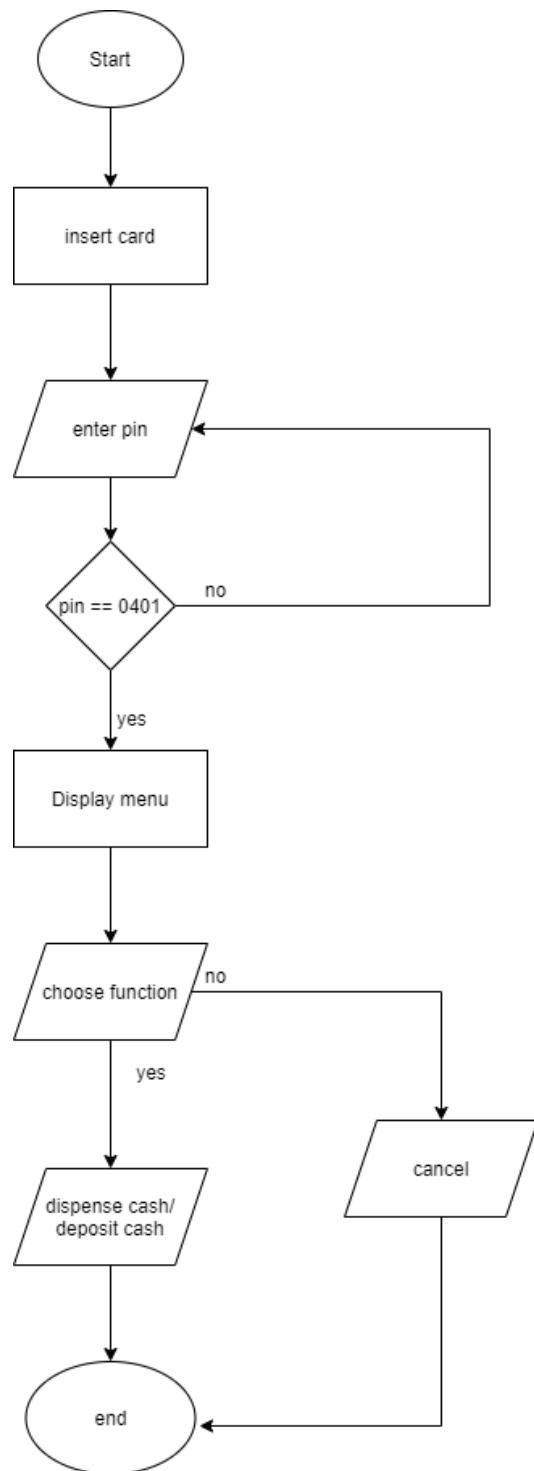
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## **1.0 Introduction.**

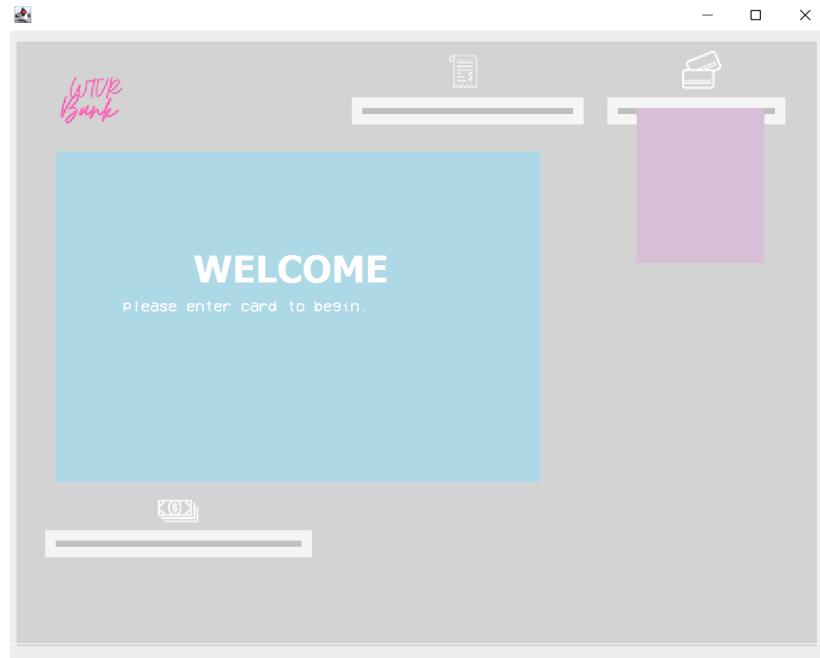
The name of this program is Automated Teller Machine (ATM) simulator. The purpose of this program is to stimulate a simple ATM function. This program will provide the vision to a user on how to complete the basic transaction in the real ATM. This ATM simulator is activated by clicking on a card and the card will move into the card slot. It will help the user to see more clearly how the actual ATM works. The user will be asked to put in a Personal Identification Number (PIN) to gain access to their accounts. The pin will be looped if the user enters it wrongly. Once the user puts the right pin, the user can select 7 major functions.

## 2.0 Flow Chart.

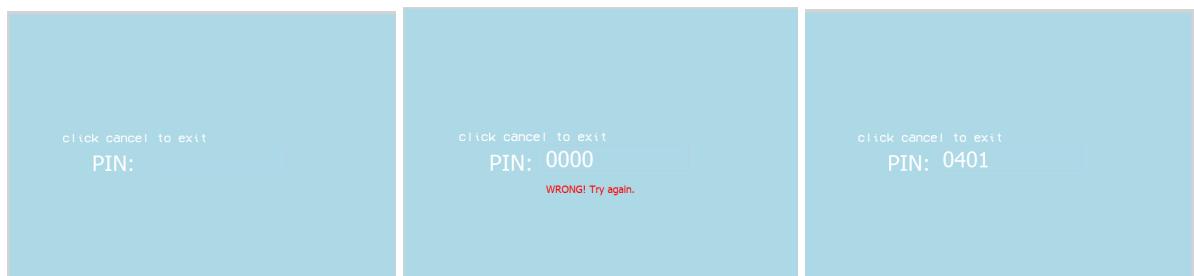


### **3.0 Screenshot.**

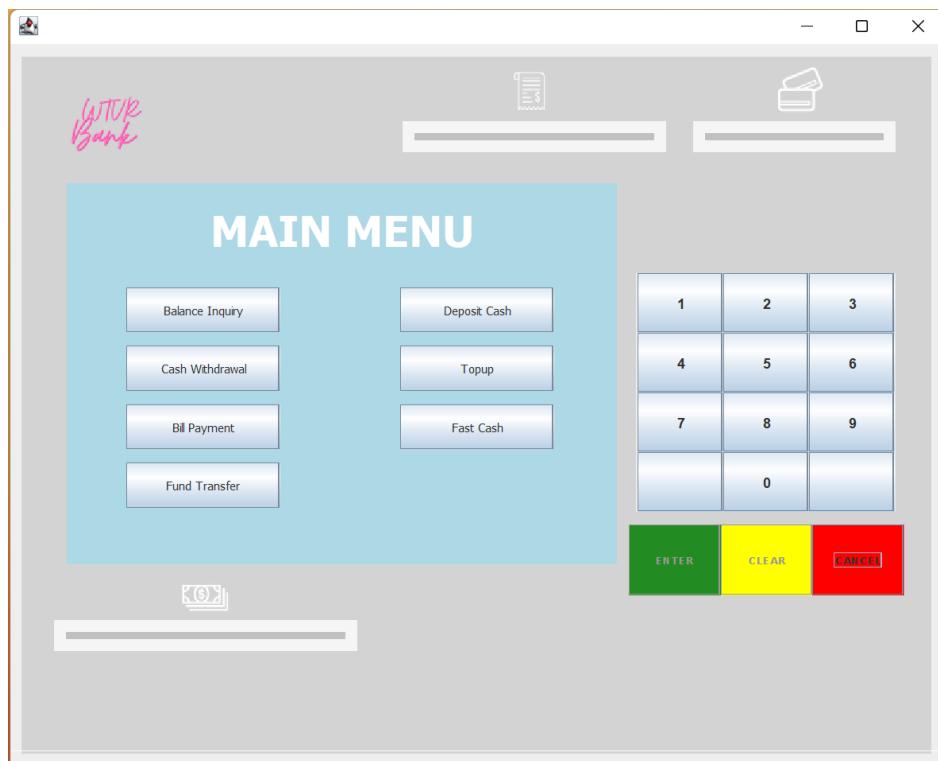
#### **3.1 Card Inserted and Pin.**



Card will be inserted into the slot by double clicking it. The screen will show a new page, the keypad will come out and ask the user to insert a pin. “WRONG! Try Again.” message will be displayed and JTextField will be empty again, if the user inserts a wrong pin. JPanel is used for the screen, money, receipt, card and all the slots. JLabel for the icon. While-loop for pin looping.



### 3.2 Main Menu



There are 7 main functions, which are balance inquiry, cash withdrawal, bill payment, fund transfer, deposit cash, top-up and fast cash. JButton is used for the functions. Keypad and special buttons are created using JButton as well. Every number in the keypad is declared for a specific JTextField that requires the keypad.

```
JButton btn1 = new JButton("1");
btn1.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        Disp.setText(Disp.getText() + "1");
        textBillerId.setText(textBillerId.getText() + "1");
        textrefno.setText(textrefno.getText() + "1");
        textamount.setText(textamount.getText() + "1");
        textphno.setText(textphno.getText() + "1");
        texttopup.setText(texttopup.getText() + "1");
        textconfirmnum.setText(textconfirmnum.getText() + "1");
        fundtrans2.setText(fundtrans2.getText() + "1");
        fundtrans.setText(fundtrans.getText() + "1");

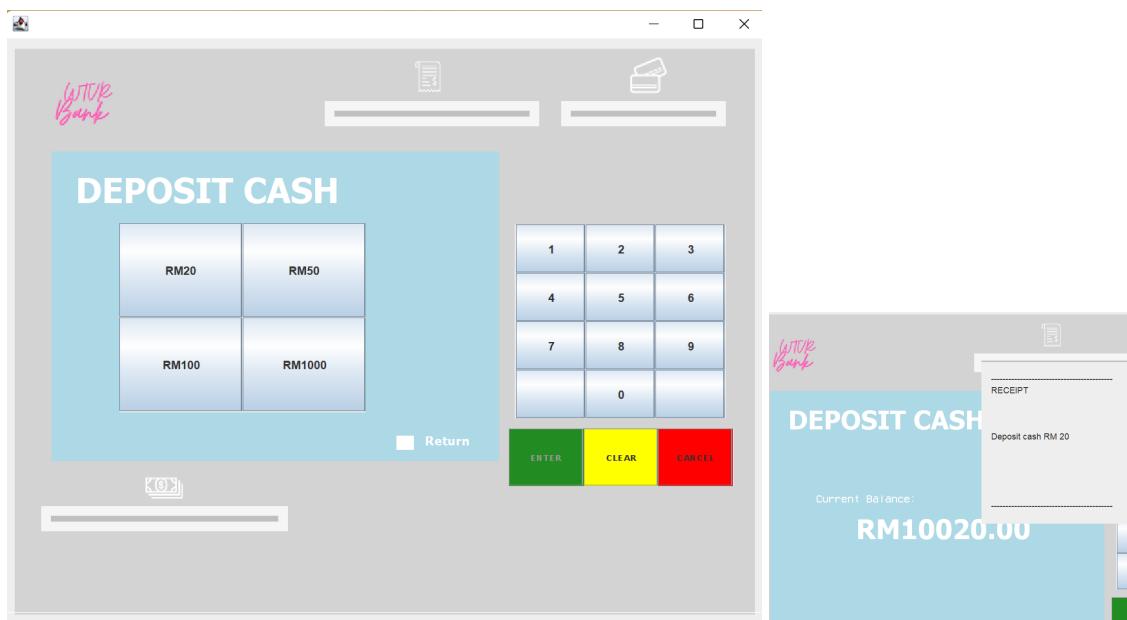
    }
});
keypad.add(btn1);
```

### 3.3 Balance Inquiry



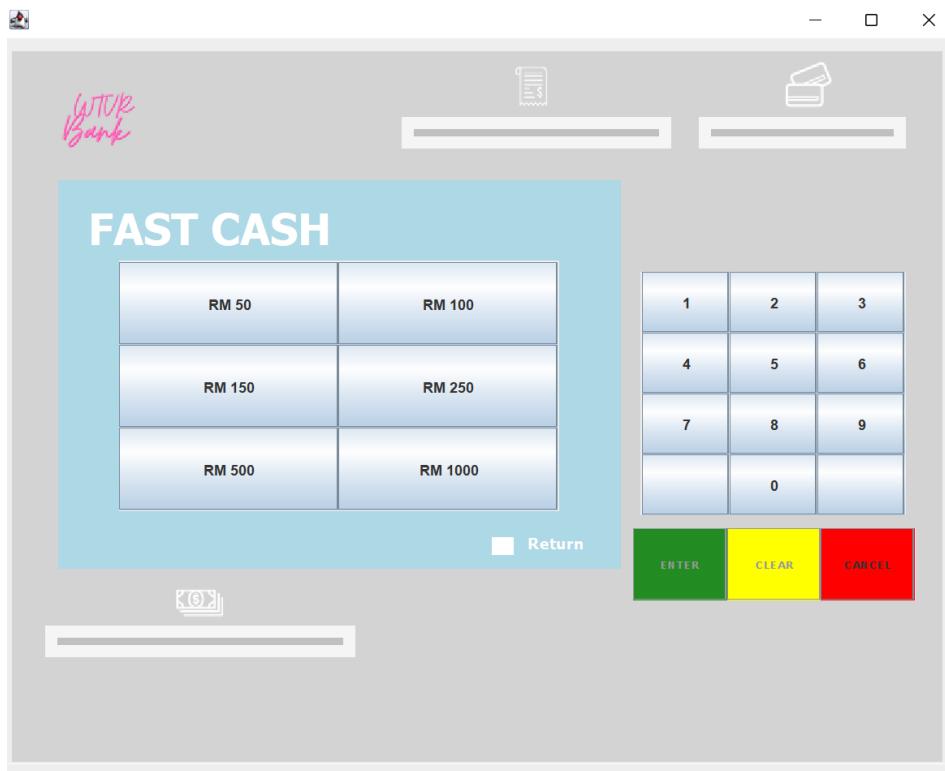
Balance is set to RM10,000. Return button provided in this part to help the user back to the main menu and pick other transactions.

### 3.4 Deposit Cash

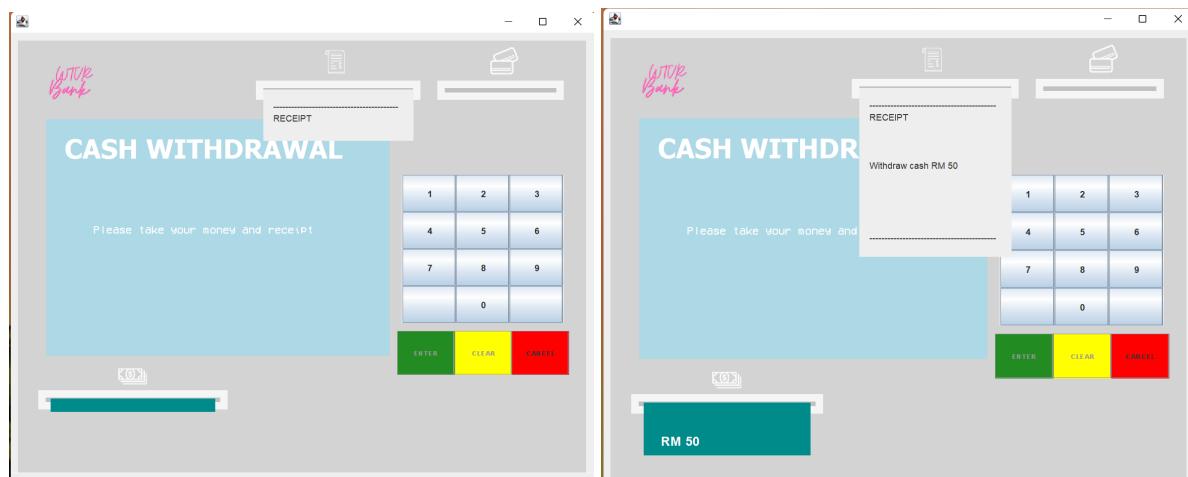


This is fast deposit cash. The user just needs to pick how much he/she needs to deposit. The receipt will come out after the button has been clicked.

### 3.5 Fast Cash



This is fast cash, where the user could just click the button without entering it. The receipt and money will come out after the button has been clicked.



The system will exit once money reach maximum size.

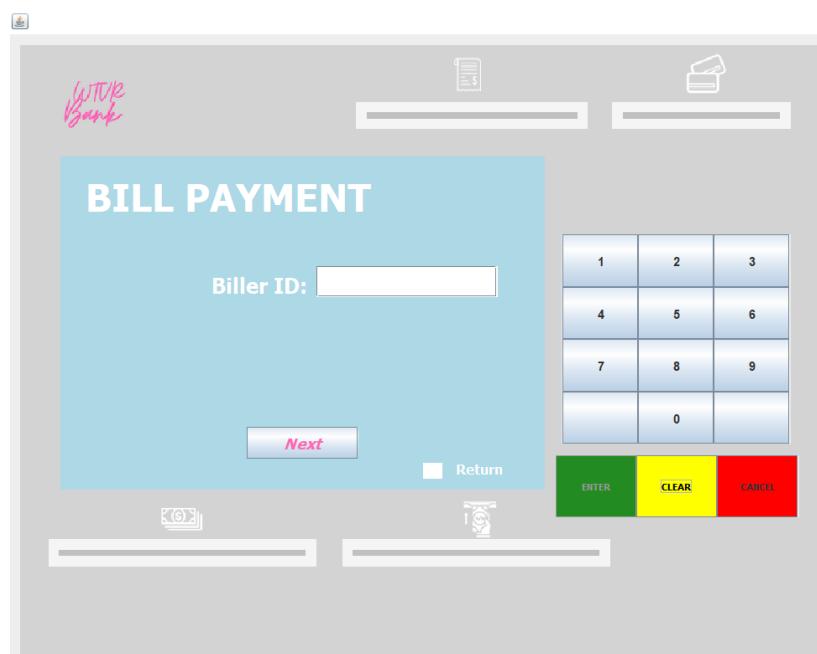
### 3.6 Cancel Button



If the cancel button is clicked, there will be a pop up asking to confirm the decision.

### 3.7 Bill Payment

#### a. Biller ID



After Clicking on the “Bill Payment” button the main menu of Bill Payment pops up. It has a heading, a ‘Biller ID’ label and a JTextField where users can input their biller ID. It also contains a ‘Next’ Button and a return button. The Biller ID refers to a specific code that the individual or company that Bills you will receive when they register with the bank. Users can only pay the Bills of registered vendors. The user has to input a Biller ID and press the next button to proceed. The system will check whether the Biller ID is a registered vendor or not.

i. Registered Biller ID

The image contains three separate screenshots of a 'BILL PAYMENT' application interface. Each screenshot shows a different bill type:

- Phone Bill:** Shows 'Biller ID: 001' and 'Reference No.: [redacted]'. Buttons for 'Next' and 'Return' are at the bottom.
- Water Bill:** Shows 'Biller ID: 002' and 'Reference No.: [redacted]'. Buttons for 'Next' and 'Return' are at the bottom.
- Electricity Bill:** Shows 'Biller ID: 003' and 'Reference No.: [redacted]'. Buttons for 'Next' and 'Return' are at the bottom.

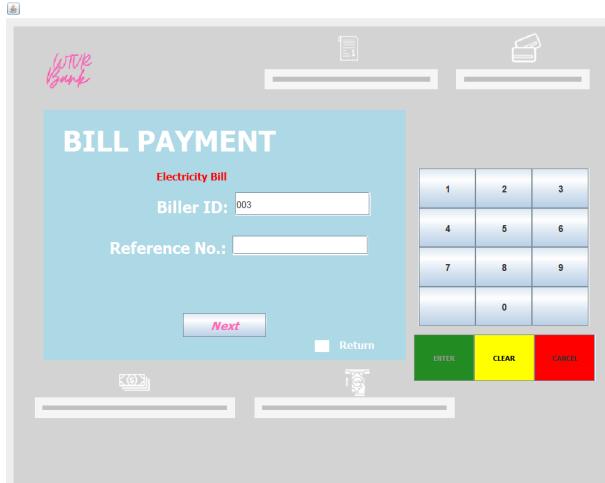
In this screen we can see that the user enters a registered Biller ID. There are three registered biller IDs in the system each corresponding to a different bill payment: '001' - Phone Bill , '002' - Water Bill, '003' - Electricity Bill. If the correct ID is entered the text will display what type of bill payment the user wants to conduct.

ii. Un-Registered Biller ID

The image shows a 'BILL PAYMENT' screen from a 'PTTB Bank' application. It displays the following message: 'This Biller ID is not registered with us.' Below this message is a text input field containing '0401'. At the bottom of the screen are 'Next' and 'Return' buttons. To the right of the input field is a numeric keypad with a grid of numbers (1-9, 0) and three function keys: 'ENTER' (green), 'CLEAR' (yellow), and 'CANCEL' (red). The screen also features decorative icons for a bank book and a cash register.

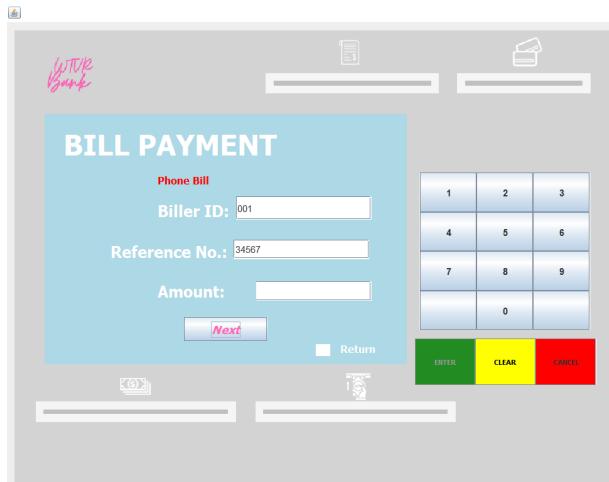
If an incorrect biller ID is input the application will say that 'This Biller ID is not registered again' and the user will have to input the correct Biller ID.

## b. Reference No.



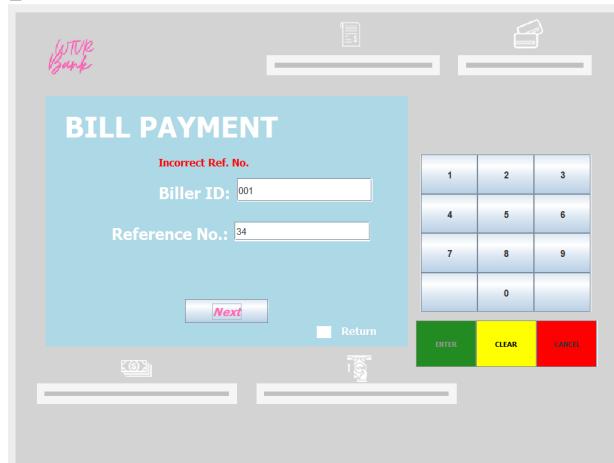
This screen displays the Reference No. label and prompts the user to enter the reference number. It also contains the 'Next' button and 'Return' button. Reference no. refers to the bill reference number. If the bill is not available in our system then the user cannot pay their bill. Users have to input the Ref No. and press 'next'.

### i. Correct ref no.



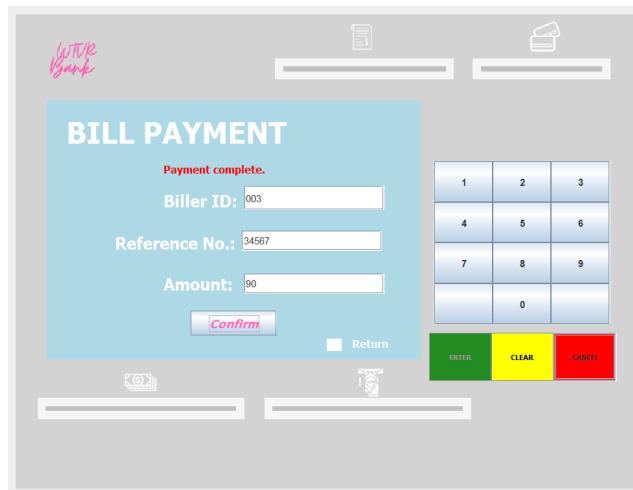
If the correct reference number is input the screen will display the 'Amount' Label and textpane.

ii. Incorrect Reference Number



If the reference number is incorrect this message will be displayed.

c. **Amount**



### 3.8 Top-Up

This part of the ATM allows users to top up their phones from the ATM.

#### d. Main page



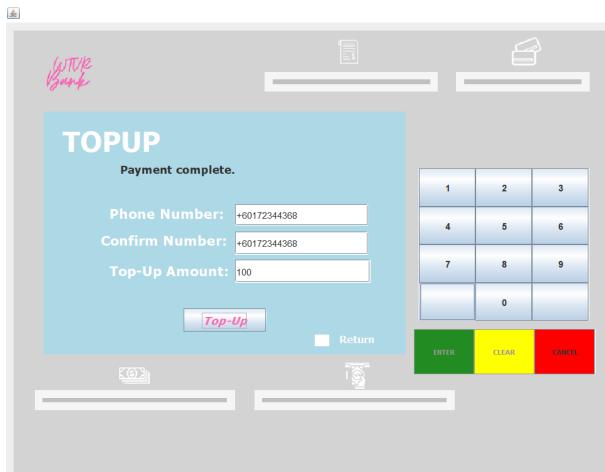
- i. Prompts the user to enter a registered phone number.

#### e. Confirm Phone Number



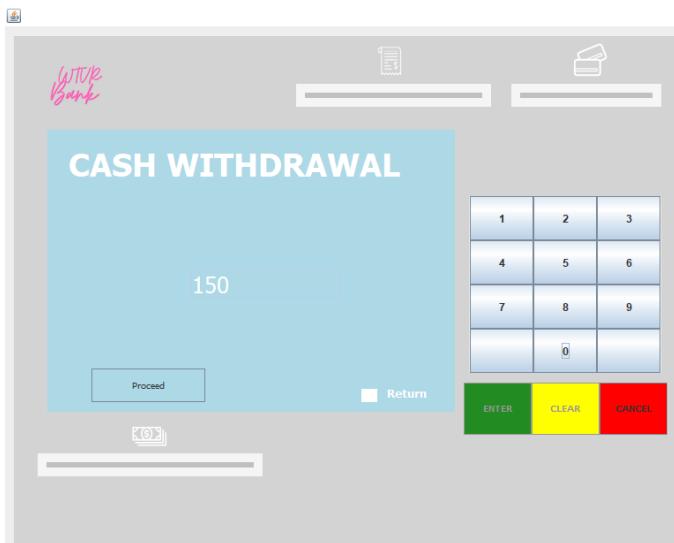
If the numbers do not match then the system will prompt them to enter teh phone number again.

## f. Top-Up

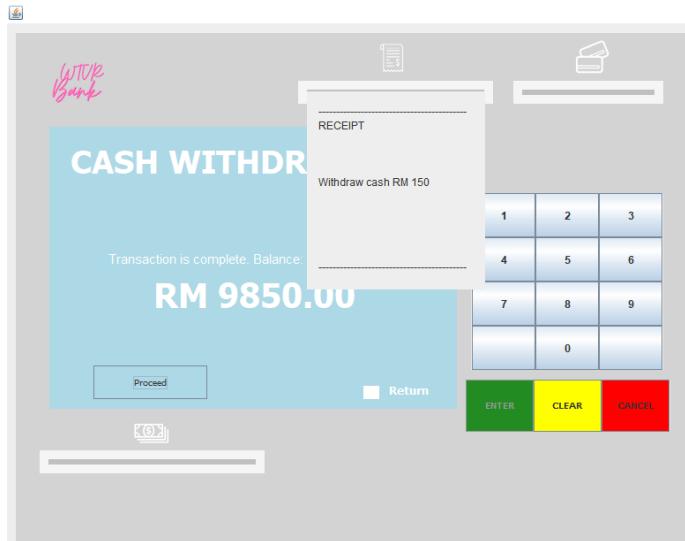


If all the information is correct then the payment is complete.

## 3.9 Cash Withdrawal

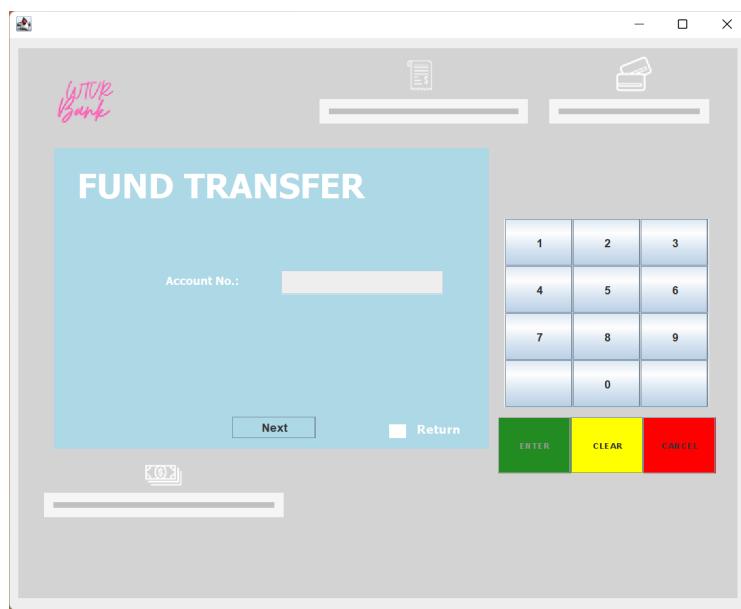


After putting the pin and selected cash withdrawal, you will go to this page where you will enter the amount you want to withdraw.



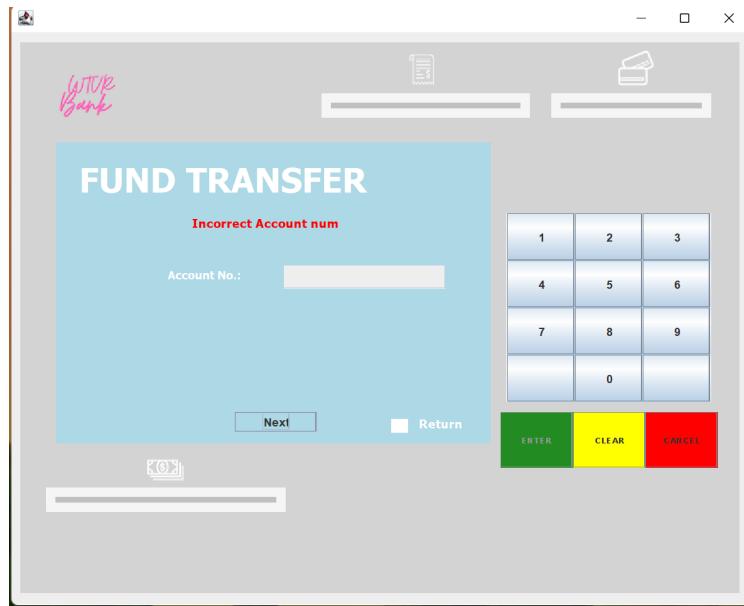
After you withdraw the money, the screen will show your cash balance and you will get receipt of your withdrawal.

### 3.1.1 Fund Transfer



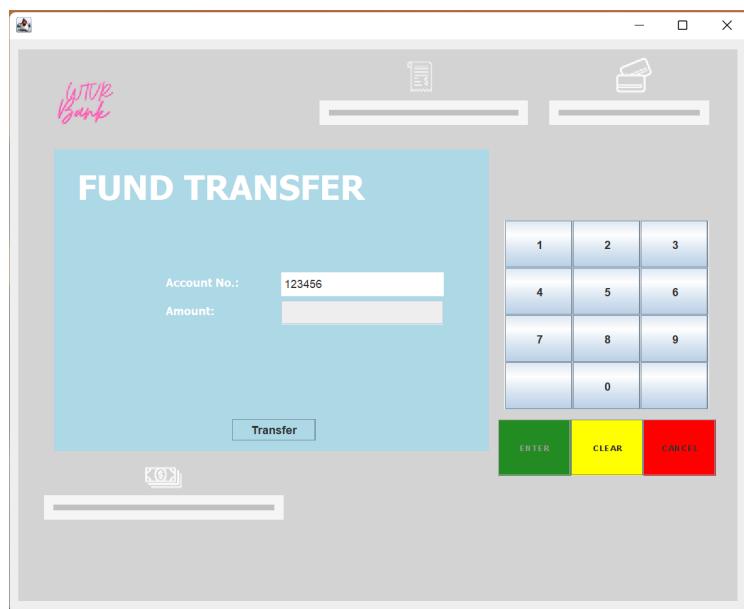
The fund transfer button leads us to the Fund Transfer page where the user is prompted to enter the Account No.

## I. Incorrect Account Number



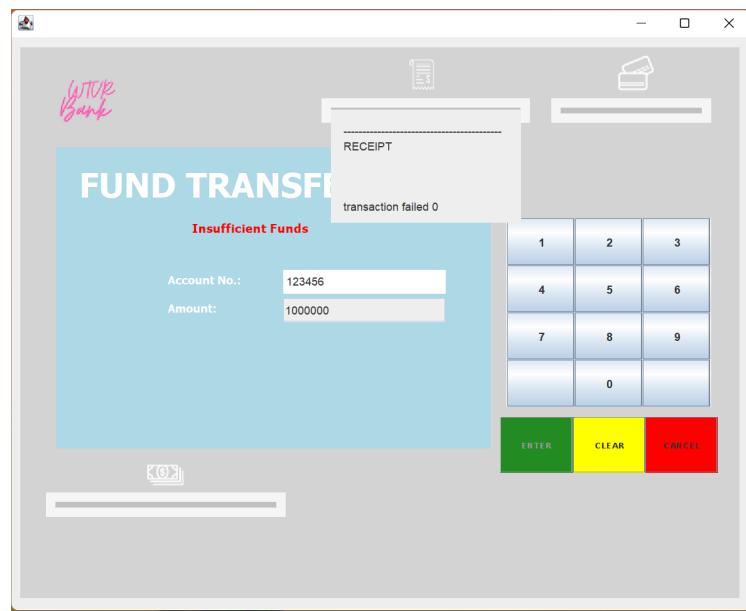
If the Account number is incorrect it shows an error message :incorrect account number. The user must enter the correct number to proceed.

## II. Correct Account Number



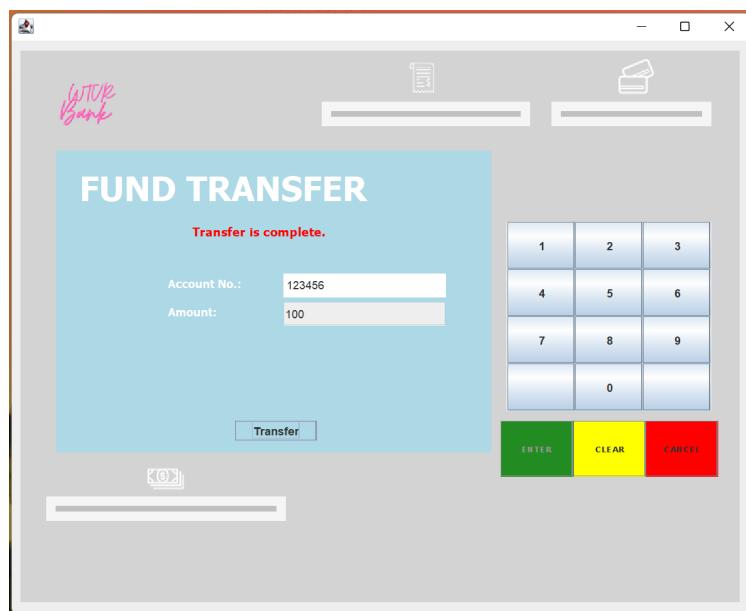
When the correct account number is entered the fund transfer screen displays the amount label and text area. The user is prompted to enter the amount they would like to transfer.

## I. Insufficient Funds



Here the amount entered by the user exceeded the available balance hence the program shows an error message and a receipt comes out with transaction failed written on it.

## Ii. Complete Transfer



Here the amount entered was correct and the programs shows that the transfer is complete.

#### **4.0 Limitations**

- Only for one user
- Once the program closes, it will reset back.
- Cannot put any amount in the deposit cash and withdrawal cash.
- Top up can only be done for registered phone numbers

## 5.0 Appendix

### main\_1.java

```
/*
 * Irdina Afiqah Binti Nasaruddin @ Nasrodin - 1151102041
 * Amirul Haikal Bin Azman -1191100318
 * Rasika Chockalingam - 1201302078
 * ATM_SIMULATOR_GUI.
 * BJA 1034
 */

import java.awt.*;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;
import java.awt.event.MouseAdapter;
import java.awt.event.MouseEvent;
import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.LineBorder;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.ImageIcon;
import javax.swing.JButton;
import javax.swing.JTextPane;
import javax.swing.JTextField;
import javax.swing.Timer;

public class main_1 {

    private JFrame frame;
    private JPanel slotcard, fastbtn, deposet;
    private JTextField Disp, textamount, textrefno, textBillerId, textconfirmnum ;
    private JButton btnBal, btnWithdraw, btnDepo, btnFast, btnBill, btnTopup, btnTrans,
    btnbck, btnconfirmtopup;
    private JButton btnClear, btnEnter, btnproceed, btnnext, btnnext2, btnbillconfirm,
    btnfinishtopup, btnfund, btnfund2;;
    private String money = "10000", fcash1 = "50";
    private JTextPane result, WRONG, txtpnReturn, fixBillerID, fixtextrefno, textbillmsg,
    txttopup1, txttopup2;
    private Card card;
    private BankNote money_1;
    private JTextField texttopup;
    private String phno = "0172344368";
```

```

private JTextField fundtrans2;
private JTextField fundtrans;

Timer timer = new Timer(5000, (e)->reset()));

/**
 * Launch the application.
 */
public static void main(String[] args) {
    EventQueue.invokeLater(new Runnable() {
        public void run() {
            try {
                main_1 window = new main_1();
                window.frame.setVisible(true);
            } catch (Exception e) {
                e.printStackTrace();
            }
        }
    });
}

private Object reset() {
    // TODO Auto-generated method stub
    return null;
}

/**
 * Create the application.
 */
public main_1() {
    initialize();
}

/**
 * Initialize the contents of the frame.
 */
private void initialize() {
    frame = new JFrame();
    frame.setBounds(100, 100, 800, 645);
    frame.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE); // change
into dispose from exit
    frame.getContentPane().setLayout(null);
}

```

```

JPanel bckground = new JPanel();
bckground.setBackground(new Color(211, 211, 211));
bckground.setBounds(10, 11, 764, 584);
frame.getContentPane().add(bckground);
bckground.setLayout(null);

money_1 = new BankNote();
money_1.setBounds(44, 483, 221, 90);
money_1.setVisible(false);
bckground.add(money_1);

//receipt transition
Receipt receipt = new Receipt();
receipt.setBounds(330, 66, 202, 224);
receipt.setVisible(false);
bckground.add(receipt);

JPanel slotreceipt = new JPanel();
slotreceipt.setBackground(new Color(192, 192, 192));
slotreceipt.setBorder(new LineBorder(new Color(245, 245,
245), 10));
slotreceipt.setBounds(320, 54, 221, 26);
bckground.add(slotreceipt);
slotreceipt.setLayout(null);

//icon
JLabel logo = new JLabel("");
Image img = new
ImageIcon(this.getClass().getResource("/logoicon.png")).getImage();
logo.setIcon(new ImageIcon(img));
logo.setBounds(38, 11, 137, 90);
bckground.add(logo);

JLabel receiptIcon = new JLabel("");
Image rimg = new
ImageIcon(this.getClass().getResource("/receipt_1.png")).getImage();
receiptIcon.setIcon(new ImageIcon(rimg));
receiptIcon.setBounds(402, 11, 48, 35);
bckground.add(receiptIcon);

JLabel cardIcon = new JLabel("");

```

```

        Image cimg = new
ImageIcon(this.getClass().getResource("/card.png")).getImage();
        cardIcon.setIcon(new ImageIcon(cimg));
        cardIcon.setBounds(630, 3, 48, 48);
        bckground.add(cardIcon);

        JLabel moneyicon = new JLabel("");
        Image mimg = new
ImageIcon(this.getClass().getResource("/money.png")).getImage();
        moneyicon.setIcon(new ImageIcon(mimg));
        moneyicon.setBounds(130, 436, 48, 35);
        bckground.add(moneyicon);

//screen
JPanel screen = new JPanel();
screen.setBackground(new Color(173, 216, 230));
screen.setBounds(38, 106, 462, 319);
bckground.add(screen);
screen.setLayout(null);

JTextPane txtpnWelcome = new JTextPane();
txtpnWelcome.setFont(new Font("Tahoma", Font.BOLD, 36));
txtpnWelcome.setText(" WELCOME");
txtpnWelcome.setForeground(new Color(255, 255, 255));
txtpnWelcome.setEditable(false);
txtpnWelcome.setBackground(new Color(173, 216, 230));
txtpnWelcome.setBounds(95, 87, 260, 48);
screen.add(txtpnWelcome);

//fund transfer
fundtrans = new JTextField();
fundtrans.setVisible(false);
fundtrans.setEditable(false);
screen.add(fundtrans);
fundtrans.setColumns(10);
fundtrans.setBounds(241, 130, 173, 25);

JTextPane txtftrans = new JTextPane();
txtftrans.setVisible(false);
txtftrans.setEditable(false);
screen.add(txtftrans);
txtftrans.setBounds(241, 130, 173, 25);

```

```

fundtrans2 = new JTextField();
fundtrans2.setVisible(false);
fundtrans2.setEditable(false);
screen.add(fundtrans2);
fundtrans2.setColumns(10);
fundtrans2.setBounds(241, 160, 173, 25);

JTextPane txtftrans2 = new JTextPane();
txtftrans2.setVisible(false);
txtftrans2.setEditable(false);
screen.add(txtftrans2);
txtftrans2.setBounds(241, 160, 173, 25);

JTextPane ftAccNum = new JTextPane();
ftAccNum.setVisible(false);
screen.add(ftAccNum);
ftAccNum.setEditable(false);
ftAccNum.setBounds(115, 130, 173, 25);
ftAccNum.setText("Account No.: ");
ftAccNum.setFont(new Font("Tahoma", Font.BOLD, 12));
ftAccNum.setForeground(new Color(255, 255, 255));
ftAccNum.setEditable(false);
ftAccNum.setBackground(new Color(173, 216, 230));

JTextPane ftAmount = new JTextPane();
ftAmount.setVisible(false);
screen.add(ftAmount);
ftAmount.setBounds(115, 160, 173, 25);
ftAmount.setText("Amount: ");
ftAmount.setFont(new Font("Tahoma", Font.BOLD, 12));
ftAmount.setForeground(new Color(255, 255, 255));
ftAmount.setEditable(false);
ftAmount.setBackground(new Color(173, 216, 230));

JTextPane textfund = new JTextPane();
textfund.setVisible(false);
textfund.setEditable(false);
textfund.setFont(new Font("Tahoma", Font.BOLD, 13));
textfund.setForeground(new Color(255, 0, 0));
textfund.setBackground(new Color(173, 216, 230));
textfund.setBounds(141, 74, 311, 30);
screen.add(textfund);

```

```

//topup
JTextPane txtpnphno = new JTextPane();
txtpnphno.setVisible(false);
txtpnphno.setEditable(false);
txtpnphno.setForeground(new Color(255, 255, 255));
txtpnphno.setFont(new Font("Tahoma", Font.BOLD, 18));
txtpnphno.setText("Phone Number: ");
txtpnphno.setBackground(new Color(173, 216, 230));
txtpnphno.setBounds(81, 120, 158, 30);
screen.add(txtpnphno);

JTextPane txtpnconfirmnum = new JTextPane();
txtpnconfirmnum.setVisible(false);
txtpnconfirmnum.setText("Confirm Number:");
txtpnconfirmnum.setForeground(Color.WHITE);
txtpnconfirmnum.setFont(new Font("Tahoma", Font.BOLD, 18));
txtpnconfirmnum.setEditable(false);
txtpnconfirmnum.setBackground(new Color(173, 216, 230));
txtpnconfirmnum.setBounds(70, 155, 170, 30);
screen.add(txtpnconfirmnum);

JTextField textphno = new JTextField();
textphno.setEditable(false);
textphno.setVisible(false);
textphno.setBounds(244, 122, 170, 28);
screen.add(textphno);
textphno.setColumns(10);

JTextPane txtptopupamount = new JTextPane();
txtptopupamount.setForeground(new Color(255, 255, 255));
txtptopupamount.setText("Top-Up Amount:");
txtptopupamount.setFont(new Font("Tahoma", Font.BOLD, 18));
txtptopupamount.setBackground(new Color(173, 216, 230));
txtptopupamount.setVisible(false);
txtptopupamount.setBounds(81, 195, 158, 30);
screen.add(txtptopupamount);

texttopup = new JTextField();
texttopup.setEditable(false);
texttopup.setVisible(false);
texttopup.setBounds(244, 195, 173, 30);
screen.add(texttopup);
texttopup.setColumns(10);

```

```

txttopup1 = new JTextPane();
txttopup1.setVisible(false);
txttopup1.setBounds(244, 122, 170, 28);
txttopup1.setFont(new Font("Tahoma", Font.PLAIN, 12));
txttopup1.setBackground(Color.WHITE);
screen.add(txttopup1);

JTextPane textdisplaytopup = new JTextPane();
textdisplaytopup.setVisible(false);
textdisplaytopup.setFont(new Font("Tahoma", Font.BOLD, 15));
textdisplaytopup.setBackground(new Color(173, 216, 230));
textdisplaytopup.setBounds(95, 64, 311, 48);
screen.add(textdisplaytopup);

```

```

textconfirmnum = new JTextField();
textconfirmnum.setEditable(false);
textconfirmnum.setVisible(false);
textconfirmnum.setBounds(244, 158, 170, 30);
screen.add(textconfirmnum);
textconfirmnum.setColumns(10);

txttopup2 = new JTextPane();
txttopup2.setVisible(false);
txttopup2.setBounds(244, 158, 170, 30);
txttopup2.setFont(new Font("Tahoma", Font.PLAIN, 12));
txttopup2.setBackground(Color.WHITE);
screen.add(txttopup2);

```

```

//Bill Payment
JTextPane txtpnBillerId = new JTextPane();
txtpnBillerId.setEditable(false);
txtpnBillerId.setVisible(false);
txtpnBillerId.setForeground(new Color(255, 255, 255));
txtpnBillerId.setText("Biller ID: ");
txtpnBillerId.setFont(new Font("Tahoma", Font.BOLD, 20));
txtpnBillerId.setBackground(new Color(173, 216, 230));
txtpnBillerId.setBounds(141, 108, 129, 38);
screen.add(txtpnBillerId);

JTextPane txtpnReferenceNo = new JTextPane();
txtpnReferenceNo.setEditable(false);
txtpnReferenceNo.setVisible(false);

```

```

txtpnReferenceNo.setText("Reference No.: ");
txtpnReferenceNo.setForeground(Color.WHITE);
txtpnReferenceNo.setFont(new Font("Tahoma", Font.BOLD, 20));
txtpnReferenceNo.setBackground(new Color(173, 216, 230));
txtpnReferenceNo.setBounds(81, 160, 189, 38);
screen.add(txtpnReferenceNo);

JTextPane txtpnAmount = new JTextPane();
txtpnAmount.setEditable(false);
txtpnAmount.setVisible(false);

textamount = new JTextField();
textamount.setVisible(false);
textamount.setColumns(10);
textamount.setBounds(244, 213, 173, 25);
screen.add(textamount);

textbillmsg = new JTextPane();
textbillmsg.setEditable(false);
textbillmsg.setFont(new Font("Tahoma", Font.BOLD, 13));
textbillmsg.setVisible(false);
textbillmsg.setForeground(new Color(255, 0, 0));
textbillmsg.setBackground(new Color(173, 216, 230));
textbillmsg.setBounds(141, 74, 311, 30);
screen.add(textbillmsg);

txtpnAmount.setText("Amount:");
txtpnAmount.setForeground(Color.WHITE);
txtpnAmount.setFont(new Font("Tahoma", Font.BOLD, 20));
txtpnAmount.setBackground(new Color(173, 216, 230));
txtpnAmount.setBounds(141, 211, 129, 38);
screen.add(txtpnAmount);

textrefno = new JTextField();
textrefno.setEditable(false);
textrefno.setVisible(false);
textrefno.setColumns(10);
textrefno.setBounds(241, 160, 173, 25);
screen.add(textrefno);

fixtextrefno = new JTextPane();
fixtextrefno.setEditable(false);
fixtextrefno.setVisible(false);
fixtextrefno.setFont(new Font("Tahoma", Font.PLAIN, 15));

```

```

fixtextrefno.setForeground(new Color(255, 255, 255));
fixtextrefno.setBackground(new Color(173, 216, 230));
fixtextrefno.setEditable(false);
fixtextrefno.setBounds(241, 160, 173, 25);
screen.add(fixtextrefno);

textBillerId = new JTextField();
textBillerId.setEditable(false);
textBillerId.setVisible(false);
textBillerId.setBounds(244, 108, 173, 25);
screen.add(textBillerId);
textBillerId.setColumns(10);

fixBillerID = new JTextPane();
fixBillerID.setEditable(false);
fixBillerID.setVisible(false);
fixBillerID.setFont(new Font("Tahoma", Font.PLAIN, 15));
fixBillerID.setForeground(new Color(255, 255, 255));
fixBillerID.setBackground(new Color(173, 216, 230));
fixBillerID.setEditable(false);
fixBillerID.setBounds(244, 108, 173, 25);
screen.add(fixBillerID);

//text
JTextPane txtpnenter = new JTextPane();
txtpnenter.setFont(new Font("VCR OSD Mono", Font.PLAIN, 15));
txtpnenter.setText("please enter card to begin.");
txtpnenter.setForeground(new Color(255, 255, 255));
txtpnenter.setBackground(new Color(173, 216, 230));
txtpnenter.setEditable(false);
txtpnenter.setBounds(60, 136, 354, 25);
screen.add(txtpnenter);

JTextPane txtpnmenu = new JTextPane();
txtpnmenu.setVisible(false);
txtpnmenu.setText("      MAIN MENU");
txtpnmenu.setForeground(Color.WHITE);
txtpnmenu.setFont(new Font("Tahoma", Font.BOLD, 36));
txtpnmenu.setEditable(false);
txtpnmenu.setBackground(new Color(173, 216, 230));
txtpnmenu.setBounds(21, 14, 416, 50);
screen.add(txtpnmenu);

//pin

```

```

JTextPane txtpnPin = new JTextPane();
txtpnPin.setVisible(false);
txtpnPin.setFont(new Font("Tahoma", Font.PLAIN, 26));
txtpnPin.setText("PIN: ");
txtpnPin.setForeground(new Color(255, 255, 255));
txtpnPin.setEditable(false);
txtpnPin.setBackground(new Color(173, 216, 230));
txtpnPin.setBounds(95, 160, 70, 38);
screen.add(txtpnPin);

Disp = new JTextField();
Disp.setFont(new Font("Tahoma", Font.PLAIN, 26));
Disp.setVisible(false);
Disp.setForeground(new Color(255, 255, 255));
Disp.setEditable(false);
Disp.setBackground(new Color(173, 216, 230));
Disp.setBounds(162, 160, 170, 30);
screen.add(Disp);
Disp.setColumns(10);

result = new JTextPane();
result.setVisible(false);
result.setBackground(new Color(173, 216, 230));
result.setEditable(false);
result.setForeground(Color.WHITE);
result.setFont(new Font("Tahoma", Font.BOLD, 38));
result.setBounds(115, 164, 281, 74);
screen.add(result);

//menu

btnBal = new JButton("Balance Inquiry");
btnBal.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        txtpnmenu.setText("BALANCE INQUIRY");
        txtpnenter.setVisible(true);
        txtpnenter.setText("Your Balance:");
        btnbck.setVisible(true);
        txtpnReturn.setVisible(true);
        result.setVisible(true);

        result.setText("RM" + money +".00");
    }
});

```

```

//close button
btnBal.setVisible(false);
btnWithdraw.setVisible(false);
btnBill.setVisible(false);
btnFast.setVisible(false);
btnTopup.setVisible(false);
btnDepo.setVisible(false);
btnTrans.setVisible(false);
}

});

btnBal.setVisible(false);
btnBal.setFont(new Font("Tahoma", Font.PLAIN, 10));
btnBal.setBounds(50, 87, 129, 38);
screen.add(btnBal);

btnWithdraw = new JButton("Cash Withdrawal");
btnWithdraw.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        //page
        txtpnmenu.setText("CASH WITHDRAWAL");
        txtpnenter.setVisible(true);
        txtpnenter.setText("Please enter amount: ");
        btnbck.setVisible(true);
        txtpnReturn.setVisible(true);
        Disp.setVisible(true);
        btnproceed.setVisible(true);
        btnClear.setEnabled(true);

        //close button
        btnBal.setVisible(false);
        btnWithdraw.setVisible(false);
        btnBill.setVisible(false);
        btnFast.setVisible(false);
        btnTopup.setVisible(false);
        btnDepo.setVisible(false);
        btnTrans.setVisible(false);
    }
});

btnWithdraw.setFont(new Font("Tahoma", Font.PLAIN, 10));
btnWithdraw.setVisible(false);
btnWithdraw.setBounds(50, 136, 129, 38);
screen.add(btnWithdraw);

```

```

btnproceed = new JButton("Proceed");
btnproceed.setBackground(new Color(173, 216, 230));
btnproceed.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        btnClear.setEnabled(true);

        int amount = 20;
        int amount2 = 50;
        int amount3 = 100;
        int amount4 = 150;
        int amount5 = 200;
        Integer balance = Integer.parseInt(money);
        int total = balance - amount;
        int total2 = balance - amount2;
        int total3 = balance - amount3;
        int total4 = balance - amount4;
        int total5 = balance - amount5;

        String a = String.format("%d", amount);
        String b = String.format("%d", amount2);
        String c = String.format("%d", amount3);
        String d = String.format("%d", amount4);
        String f = String.format("%d", amount5);

        String tot = String.format("%d", total);
        String tot2 = String.format("%d", total2);
        String tot3 = String.format("%d", total3);
        String tot4 = String.format("%d", total4);
        String tot5 = String.format("%d", total5);

        if(balance > amount) {
            if(a.equals(Disp.getText())) {
                txtPnenter.setVisible(true);
                txtPnenter.setText(" Transaction is complete.
Balance: ");
                Disp.setVisible(false);
                result.setVisible(true);
                result.setText("RM " + tot + ".00");
                receipt.animate(a);
                money_1.animate(a);
                timer.start();
            }
        }
    }
}

```

```

        else if(b.equals(Disp.getText())) {
            Disp.setVisible(false);
            txtpnenter.setVisible(true);
            txtpnenter.setText(" Transaction is complete.
Balance: ");
            result.setVisible(true);
            result.setText("RM " + tot2 + ".00");
            receipt.animate(b);
            timer.start();
        }

        else if(c.equals(Disp.getText())) {
            Disp.setVisible(false);
            txtpnenter.setVisible(true);
            txtpnenter.setText(" Transaction is complete.
Balance: ");
            result.setVisible(true);
            result.setText("RM " + tot3 + ".00");
            receipt.animate(c);
            timer.start();
        }

        else if(d.equals(Disp.getText())) {
            Disp.setVisible(false);
            txtpnenter.setVisible(true);
            txtpnenter.setText(" Transaction is complete.
Balance: ");
            result.setVisible(true);
            result.setText("RM " + tot4 + ".00");
            receipt.animate(d);
            timer.start();
        }

        else if(f.equals(Disp.getText())) {
            Disp.setVisible(false);
            txtpnenter.setVisible(true);
            txtpnenter.setText(" Transaction is complete.
Balance");
            result.setVisible(true);
            result.setText("RM " + tot5 + ".00");
            receipt.animate(f);
            timer.start();
        }
    }
}

```

```

        else {
            txtpnenter.setVisible(true);
            txtpnenter.setText(" Insufficient Funds. Try
again");
        }
    }else {
        txtpnenter.setVisible(true);
        txtpnenter.setText("please put amount");
    }
}

}

};

btnproceed.setFont(new Font("Tahoma", Font.PLAIN, 10));
btnproceed.setVisible(false);
btnproceed.setBounds(50, 270, 129, 38);
screen.add(btnproceed);

btnBill = new JButton("Bill Payment");
btnBill.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        //page
        txtpnmenu.setText("BILL PAYMENT");
        txtpnenter.setVisible(false);
        btnbck.setVisible(true);
        txtpnReturn.setVisible(true);
        btnClear.setEnabled(true);

        //action
        txtpnBillerId.setVisible(true);
        textBillerId.setVisible(true);
        textBillerId.setText(null);
        btnnext.setVisible(true);
        textbillmsg.setVisible(true);

        //close button
        btnBal.setVisible(false);
        btnWithdraw.setVisible(false);
        btnBill.setVisible(false);
        btnFast.setVisible(false);
    }
})

```

```

        btnTopup.setVisible(false);
        btnDepo.setVisible(false);
        btnTrans.setVisible(false);
    }
});

btnBill.setFont(new Font("Tahoma", Font.PLAIN, 10));
btnBill.setVisible(false);
btnBill.setBounds(50, 185, 129, 38);
screen.add(btnBill);

bttnext = new JButton("Next");
bttnext.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {

        String billerID1 = "001" ;
        String billerID2 = "002" ;
        String billerID3 = "003" ;
        if (billerID1.equals(textBillerId.getText()))
        {
            textbillmsg.setText("Phone Bill");
            textBillerId.setVisible(false);
            fixBillerID.setVisible(true);
            fixBillerID.setText(billerID1);
            txtpnReferenceNo.setVisible(true);
            textrefno.setVisible(true);
            textrefno.setText(null);
            bttnext.setVisible(false);
            bttnext2.setVisible(true);
            btnbck.setVisible(false);
            txtpnReturn.setVisible(false);
        }
        else if (billerID2.equals(textBillerId.getText()))
        {
            textbillmsg.setText("Water Bill");
            textBillerId.setVisible(false);
            fixBillerID.setVisible(true);
            fixBillerID.setText(billerID1);
            txtpnReferenceNo.setVisible(true);
            textrefno.setVisible(true);
            textrefno.setText(null);
            bttnext2.setVisible(true);
            btnbck.setVisible(false);
            bttnext.setVisible(false);
        }
    }
})

```

```

        txtpnReturn.setVisible(false);
    }
    else if (billerID3.equals(textBillerId.getText()))
    {
        textbillmsg.setText("Electricity Bill");
        textBillerId.setVisible(false);
        fixBillerID.setVisible(true);
        fixBillerID.setText(billerID1);
        txtpnReferenceNo.setVisible(true);
        textrefno.setVisible(true);
        textrefno.setText(null);
        btnnext2.setVisible(true);
        btnbck.setVisible(false);
        btnnext.setVisible(false);
        txtpnReturn.setVisible(false);

    }
    else {textbillmsg.setText("This Biller ID is not registered with
us.");}

}

});

btnnext.setForeground(new Color(255, 105, 180));
btnnext.setFont(new Font("Tahoma", Font.BOLD | Font.ITALIC, 15));
btnnext.setVisible(false);
btnnext.setBounds(178, 259, 106, 30);
screen.add(btnnext);

btnnext2 = new JButton("Next");
btnnext2.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {

        String refno = "34567";
        if (refno.equals(textrefno.getText()))
        {
            textrefno.setVisible(false);
            fixtextrefno.setVisible(true);
            fixtextrefno.setText(refno);
            btnbillconfirm.setVisible(true);
            txtpnAmount.setVisible(true);
            textamount.setVisible(true);
            textamount.setText(null);
            btnnext2.setVisible(false);
        }
    }
});

```

```

        }
    else
    {
        textbillmsg.setText("Incorrect Ref. No.");
    }
}

});

btnnext2.setVisible(false);
btnnext2.setForeground(new Color(255, 105, 180));
btnnext2.setFont(new Font("Tahoma", Font.BOLD | Font.ITALIC, 15));
btnnext2.setBounds(178, 259, 106, 30);
screen.add(btnnext2);

btnbillconfirm = new JButton("Confirm");
btnbillconfirm.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String failed = "0";
        int number = Integer.parseInt(textamount.getText().toString());

        if(number < 10000)
        {
            textbillmsg.setText("Payment complete.");
        }
        else
        {

            receipt.transition(failed);
            timer.start();
            textbillmsg.setText("Insufficient Funds");
        }
    }
});

btnbillconfirm.setForeground(new Color(255, 105, 180));
btnbillconfirm.setFont(new Font("Tahoma", Font.BOLD | Font.ITALIC, 15));
btnbillconfirm.setVisible(false);
btnbillconfirm.setBounds(178, 259, 106, 30);
screen.add(btnbillconfirm);

btnFast = new JButton("Fast Cash");
btnFast.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        txtpnmenu.setText("FAST CASH");
        txtpnenter.setVisible(false);
    }
});

```

```

        btnbck.setVisible(true);
        fastbtn.setVisible(true);
        txtpnReturn.setVisible(true);

        //close button
        btnBal.setVisible(false);
        btnWithdraw.setVisible(false);
        btnBill.setVisible(false);
        btnFast.setVisible(false);
        btnTopup.setVisible(false);
        btnDepo.setVisible(false);
        btnTrans.setVisible(false);
    }

});

btnFast.setFont(new Font("Tahoma", Font.PLAIN, 10));
btnFast.setVisible(false);
btnFast.setBounds(280, 185, 129, 38);
screen.add(btnFast);

```

```

JButton btnoktopup = new JButton("OK");
btnoktopup.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {

        if ( phno.equals(textphno.getText()))
        {
            txtdisplaytopup.setText("Please Confirm your
number");
            txtpnconfirmnum.setVisible(true);
            txtpnenter.setVisible(false);
            textconfirmnum.setVisible(true);
            textconfirmnum.setText(null);
            btnoktopup.setVisible(false);
            btnconfirmtopup.setVisible(true);
            textphno.setVisible(false);
            txttopup1.setVisible(true);
            txttopup1.setText(phno);
            btnbck.setVisible(false);
            txtpnReturn.setVisible(false);
        }
        else
        {

```

```

        textdisplaytopup.setText("Please enter a valid phone
number");
    }
}
});
btnoktopup.setVisible(false);
btnoktopup.setForeground(new Color(255, 105, 180));
btnoktopup.setFont(new Font("Tahoma", Font.BOLD | Font.ITALIC, 15));
btnoktopup.setBounds(179, 259, 105, 30);
screen.add(btnoktopup);

btnconfirmtopup = new JButton("Confirm");
btnconfirmtopup.setVisible(false);
btnconfirmtopup.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        if (phno.equals(textconfirmnum.getText()))
        {
            textdisplaytopup.setText("Phone number is
confirmed");
            textconfirmnum.setVisible(false);
            txttopup2.setVisible(true);
            txttopup2.setText(phno);
            txtpnktopupamount.setVisible(true);
            txttopup.setVisible(true);
            txttopup.setText(null);
            btnfinishtopup.setVisible(true);
            btnconfirmtopup.setVisible(false);
        }
        else
        {
            textdisplaytopup.setText("Phone numbers do not
match.");
        }
    }
});
});

btnconfirmtopup.setForeground(new Color(255, 105, 180));
btnconfirmtopup.setFont(new Font("Tahoma", Font.BOLD | Font.ITALIC,
15));
btnconfirmtopup.setBounds(179, 259, 105, 30);
screen.add(btnconfirmtopup);

```

```

btnTopup = new JButton("Topup");
btnTopup.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        //page
        txtpnmenu.setText("TOP-UP");
        txtpnenter.setVisible(false);
        btnbck.setVisible(true);
        txtpnReturn.setVisible(true);
        txtpnphno.setVisible(true);
        textphno.setVisible(true);
        btnoktopup.setVisible(true);
        textdisplaytopup.setVisible(true);
        textphno.setText(null);
        btnClear.setEnabled(true);

        //close button
        btnBal.setVisible(false);
        btnWithdraw.setVisible(false);
        btnBill.setVisible(false);
        btnFast.setVisible(false);
        btnTopup.setVisible(false);
        btnDepo.setVisible(false);
        btnTrans.setVisible(false);
    }
});

btnTopup.setVisible(false);
btnTopup.setFont(new Font("Tahoma", Font.PLAIN, 10));
btnTopup.setBounds(280, 136, 129, 38);
screen.add(btnTopup);
textamount.setColumns(10);
textamount.setBounds(244, 213, 173, 25);
screen.add(textamount);

btnfinishtopup = new JButton("Top-Up");
btnfinishtopup.setVisible(false);
btnfinishtopup.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String failed = "0";
        if(money.compareTo(texttopup.getText()) < 10000)
        {
            receipt.transition(failed);
            textdisplaytopup.setText("Insufficient Funds");
        }
        else

```

```

        {
            texttopup.setText(texttopup.getText());
            textdisplaytopup.setText("Payment complete.");
        }
    }
});

btnfinishtopup.setForeground(new Color(255, 105, 180));
btnfinishtopup.setFont(new Font("Tahoma", Font.BOLD | Font.ITALIC, 15));
btnfinishtopup.setBounds(179, 259, 105, 30);
screen.add(btnfinishtopup);

deposit = new JPanel();
deposit.setVisible(false);
deposit.setBounds(70, 74, 254, 195);
screen.add(deposit);
deposit.setLayout(new GridLayout(2, 2, 0, 0));

JButton btndepo1 = new JButton("RM20");
btndepo1.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        int cash = 20;
        Integer bal = Integer.parseInt(money);
        int Totalbal = bal + cash;
        String tbal = Integer.toString(Totalbal);
        deposit.setVisible(false);
        txtpnenter.setVisible(true);
        txtpnenter.setText("Current Balance: ");
        result.setVisible(true);
        result.setText("RM" + tbal + ".00");
        btnbck.setVisible(false);
        txtpnReturn.setVisible(false);
        receipt.animated("20");
    }
});
deposit.add(btndepo1);

JButton btndepo2 = new JButton("RM50");
btndepo2.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        int cash = 50;
        Integer bal = Integer.parseInt(money);
        int Totalbal = bal + cash;

```

```

        String tbal = Integer.toString(Totalbal);
        deposet.setVisible(false);
        txtpnenter.setVisible(true);
        txtpnenter.setText("Current Balance: ");
        result.setVisible(true);
        result.setText("RM" + tbal +".00");
        btnbck.setVisible(false);
        txtpnReturn.setVisible(false);
        receipt.animated("50");
    }
});

deposet.add(btnredep);

JButton btndepo3 = new JButton("RM100");
btndepo3.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        int cash = 100;
        Integer bal = Integer.parseInt(money);
        int Totalbal = bal + cash;
        String tbal = Integer.toString(Totalbal);
        deposet.setVisible(false);
        txtpnenter.setVisible(true);
        txtpnenter.setText("Current Balance: ");
        result.setVisible(true);
        result.setText("RM" + tbal +".00");
        btnbck.setVisible(false);
        txtpnReturn.setVisible(false);
        receipt.animated("100");
    }
});
deposet.add(btndepo3);

JButton btndepo4 = new JButton("RM1000");
btndepo4.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        int cash = 1000;
        Integer bal = Integer.parseInt(money);
        int Totalbal = bal + cash;
        String tbal = Integer.toString(Totalbal);
        deposet.setVisible(false);
        txtpnenter.setVisible(true);
        txtpnenter.setText("Current Balance: ");
        result.setVisible(true);
        result.setText("RM" + tbal +".00");
    }
});

```

```

        btnbck.setVisible(false);
        txtpnReturn.setVisible(false);
        receipt.animated("1000");
    }
});

deposit.add(btndepo4);

btnDepo = new JButton("Deposit Cash");
btnDepo.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        txtpnmenu.setText("DEPOSIT CASH");
        txtpnenter.setVisible(false);
        btnbck.setVisible(true);
        txtpnReturn.setVisible(true);

        //action
        deposit.setVisible(true);
        btnClear.setEnabled(true);

        //close button
        btnBal.setVisible(false);
        btnWithdraw.setVisible(false);
        btnBill.setVisible(false);
        btnFast.setVisible(false);
        btnTopup.setVisible(false);
        btnDepo.setVisible(false);
        btnTrans.setVisible(false);
    }
});
btnDepo.setFont(new Font("Tahoma", Font.PLAIN, 10));
btnDepo.setVisible(false);
btnDepo.setBounds(280, 87, 129, 38);
screen.add(btnDepo);

//fund transfer

btnTrans = new JButton("Fund Transfer");
btnTrans.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        //page
        txtpnmenu.setText("FUND TRANSFER");
        txtpnenter.setVisible(false);
        btnbck.setVisible(true);
    }
});

```

```

        txtpnReturn.setVisible(true);
        fundtrans2.setVisible(false);
        fundtrans.setVisible(true);
        fundtrans.setText(null);
        ftAccNum.setVisible(true);
        ftAmount.setVisible(false);
        btnfund.setVisible(true);
        textfund.setVisible(true);
        btnClear.setEnabled(true);

        //close button
        btnBal.setVisible(false);
        btnWithdraw.setVisible(false);
        btnBill.setVisible(false);
        btnFast.setVisible(false);
        btnTopup.setVisible(false);
        btnDepo.setVisible(false);
        btnTrans.setVisible(false);
    }

});

btnTrans.setVisible(false);
btnTrans.setFont(new Font("Tahoma", Font.PLAIN, 10));
btnTrans.setBounds(50, 234, 129, 38);
screen.add(btnTrans);

btnfund = new JButton("Next");
btnfund.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {

        String AccID = "123456" ;

        if ( AccID.equals(fundtrans.getText()))
        {
            btnbck.setVisible(false);
            txtpnReturn.setVisible(false);
            ftAccNum.setVisible(true);
            txtftrans.setVisible(true);
            txtftrans.setText(AccID);
            fundtrans.setVisible(false);
            ftAmount.setVisible(true);
            fundtrans2.setVisible(true);
            fundtrans2.setEditable(false);
        }
    }
});

```

```

        fundtrans2.setText(null);
        btnfund2.setVisible(true);
        btnfund.setVisible(false);
        textfund.setVisible(false);

    }

else
{
    textfund.setText("Incorrect Account num");
    fundtrans.setText(null);
}

}

});

btnfund.setBackground(new Color(173, 216, 230));
btnfund.setBounds(189, 285, 89, 23);
screen.add(btnfund);
btnfund.setVisible(false);

btnfund2 = new JButton("Transfer");
btnfund2.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String failed = "0";
        int number = Integer.parseInt(fundtrans2.getText().toString());

        if(number < 10000)
        {
            textfund.setVisible(true);
            textfund.setText("Transfer is complete.");
        }
        else
        {

            btnfund2.setVisible(false);
            textfund.setVisible(true);
            receipt.transition(failed);
            textfund.setText("Insufficient Funds");
        }
    }

});

btnfund2.setBackground(new Color(173, 216, 230));

```

```

bttnfund2.setBounds(189, 285, 89, 23);
screen.add(bttnfund2);
bttnfund2.setVisible(false);

JPanel slotmoney = new JPanel();
slotmoney.setBorder(new LineBorder(new Color(245, 245, 245), 10));
slotmoney.setBackground(Color.LIGHT_GRAY);
slotmoney.setBounds(27, 472, 255, 26);
bckground.add(slotmoney);

//return button
btnbck = new JButton("");
btnbck.setAlignmentY(Component.TOP_ALIGNMENT);
btnbck.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        txtpnenter.setVisible(false);
        result.setVisible(false);
        fastbtn.setVisible(false);
        txtpnReturn.setVisible(false);
        btnbck.setVisible(false);
        btnproceed.setVisible(false);
        Disp.setVisible(false);
        textBillerId.setVisible(false);
        txtpnBillerId.setVisible(false);
        btnnext.setVisible(false);
        btnnext2.setVisible(false);
        textbillmsg.setVisible(false);
        deposit.setVisible(false);
        btnoktopup.setVisible(false);
        txtpnphno.setVisible(false);
        textphno.setVisible(false);
        btnoktopup.setVisible(false);
        textdisplaytopup.setVisible(false);
        ftAccNum.setVisible(false);
        fundtrans.setVisible(false);
        ftAmount.setVisible(false);
        bttnfund2.setVisible(false);
        bttnfund.setVisible(false);
        textfund.setVisible(false);

        //recall menu
        txtpnmenu.setText("      MAIN MENU");
    }
});

```

```

        btnBal.setVisible(true);
        btnWithdraw.setVisible(true);
        btnBill.setVisible(true);
        btnFast.setVisible(true);
        btnTopup.setVisible(true);
        btnDepo.setVisible(true);
        btnTrans.setVisible(true);

    }

});

btnbck.setVisible(false);
btnbck.setBorderPainted(false);
btnbck.setBackground(Color.WHITE);
btnbck.setForeground(Color.WHITE);
btnbck.setFont(new Font("Tahoma", Font.BOLD, 12));
btnbck.setBounds(356, 293, 18, 15);
screen.add(btnbck);

```

```

WRONG = new JTextPane();
WRONG.setVisible(false);
WRONG.setText("WRONG! Try again.");
WRONG.setFont(new Font("Tahoma", Font.PLAIN, 12));
WRONG.setBackground(new Color(173, 216, 230));
WRONG.setForeground(Color.RED);
WRONG.setBounds(162, 200, 247, 38);
screen.add(WRONG);

```

```

fastbtn = new JPanel();
fastbtn.setVisible(false);
fastbtn.setBounds(50, 66, 361, 206);
screen.add(fastbtn);
fastbtn.setLayout(new GridLayout(3, 2, 0, 0));

```

```

//fast cash
JButton btn50 = new JButton("RM 50");
btn50.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String fcash = new String(fcash1);
        btnbck.setVisible(false);
        fastbtn.setVisible(false);
        txtpnReturn.setVisible(false);

```

//action

```

        txtpnmenu.setText("CASH WITHDRAWAL");
        txtpnenter.setVisible(true);
        txtpnenter.setText("Please take your money and receipt");
        money_1.animate(fcash);
        receipt.setVisible(true);
        receipt.animate(fcash);
        timer.start();
    }
});

fastbtn.add(btn50);

JButton btn100 = new JButton("RM 100");
btn100.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String fcash = "100";
        btnbck.setVisible(false);
        fastbtn.setVisible(false);
        txtpnReturn.setVisible(false);

        //action
        txtpnmenu.setText("CASH WITHDRAWAL");
        txtpnenter.setVisible(true);
        txtpnenter.setText("Please take your money and receipt");
        money_1.animate(fcash);
        receipt.setVisible(true);
        receipt.animate(fcash);
        timer.start();
    }
});
fastbtn.add(btn100);

JButton btn150 = new JButton("RM 150");
btn150.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String fcash = "150";
        btnbck.setVisible(false);
        fastbtn.setVisible(false);
        txtpnReturn.setVisible(false);

        //action
        txtpnmenu.setText("CASH WITHDRAWAL");
        txtpnenter.setVisible(true);
        txtpnenter.setText("Please take your money and receipt");
        money_1.animate(fcash);
    }
});

```

```

        receipt.setVisible(true);
        receipt.animate(fcash);
        timer.start();
    }
});

fastbtn.add(btn150);

JButton btn250 = new JButton("RM 250");
btn250.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String fcash = "250";
        btnbck.setVisible(false);
        fastbtn.setVisible(false);
        txtpnReturn.setVisible(false);

        //action
        txtpnmenu.setText("CASH WITHDRAWAL");
        txtpnenter.setVisible(true);
        txtpnenter.setText("Please take your money and receipt");
        money_1.animate(fcash);
        receipt.setVisible(true);
        receipt.animate(fcash);
        timer.start();
    }
});
fastbtn.add(btn250);

JButton btn500 = new JButton("RM 500");
btn500.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String fcash = "500";
        btnbck.setVisible(false);
        fastbtn.setVisible(false);
        txtpnReturn.setVisible(false);

        //action
        txtpnmenu.setText("CASH WITHDRAWAL");
        txtpnenter.setVisible(true);
        txtpnenter.setText("Please take your money and receipt");
        money_1.animate(fcash);
        receipt.setVisible(true);
        receipt.animate(fcash);
        timer.start();
    }
});

```

```

    });
    fastbtn.add(btn500);

    JButton btn1000 = new JButton("RM 1000");
    btn1000.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
            String fcash = "1000";
            btnbck.setVisible(false);
            fastbtn.setVisible(false);
            txtpnReturn.setVisible(false);

            //action
            txtpnmenu.setText("CASH WITHDRAWAL");
            txtpnenter.setVisible(true);
            txtpnenter.setText("Please take your money and receipt");
            money_1.animate(fcash);
            receipt.setVisible(true);
            receipt.animate(fcash);
            timer.start();
        }
    });
    fastbtn.add(btn1000);

    txtpnReturn = new JTextPane();
    txtpnReturn.setAlignmentX(Component.LEFT_ALIGNMENT);
    txtpnReturn.setAlignmentY(0.1f);
    txtpnReturn.setFont(new Font("Tahoma", Font.BOLD, 13));
    txtpnReturn.setVisible(false);
    txtpnReturn.setEditable(false);
    txtpnReturn.setText("Return");
    txtpnReturn.setForeground(new Color(255, 255, 255));
    txtpnReturn.setBackground(new Color(173, 216, 230));
    txtpnReturn.setBounds(382, 287, 70, 21);
    screen.add(txtpnReturn);

    //keypad
    JPanel keypad = new JPanel();
    keypad.setVisible(false);
    keypad.setBounds(516, 181, 218, 200);
}

```

```

bckground.add(keypad);
keypad.setLayout(new GridLayout(4, 3, 0, 0));

JButton btn1 = new JButton("1");
btn1.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        Disp.setText(Disp.getText() + "1");
        textBillerId.setText(textBillerId.getText() + "1");
        textrefno.setText(textrefno.getText() + "1");
        textamount.setText(textamount.getText() + "1");
        textphno.setText(textphno.getText() + "1");
        texttopup.setText(texttopup.getText() + "1");
        textconfirmnum.setText(textconfirmnum.getText() + "1");
        fundtrans2.setText(fundtrans2.getText() + "1");
        fundtrans.setText(fundtrans.getText() + "1");

    }
});

keypad.add(btn1);

JButton btn2 = new JButton("2");
btn2.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        Disp.setText(Disp.getText() + "2");
        textBillerId.setText(textBillerId.getText() + "2");
        textrefno.setText(textrefno.getText() + "2");
        textamount.setText(textamount.getText() + "2");
        textphno.setText(textphno.getText() + "2");
        texttopup.setText(texttopup.getText() + "2");
        textconfirmnum.setText(textconfirmnum.getText() + "2");
        fundtrans2.setText(fundtrans2.getText() + "2");
        fundtrans.setText(fundtrans.getText() + "2");

    }
});

keypad.add(btn2);

JButton btn3 = new JButton("3");
btn3.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        Disp.setText(Disp.getText() + "3");
        textBillerId.setText(textBillerId.getText() + "3");
        textrefno.setText(textrefno.getText() + "3");
        textamount.setText(textamount.getText() + "3");
        textphno.setText(textphno.getText() + "3");
    }
});

```

```

texttopup.setText(texttopup.getText() + "3");
textconfirmnum.setText(textconfirmnum.getText() + "3");
fundtrans2.setText(fundtrans2.getText() + "3");
fundtrans.setText(fundtrans.getText() + "3");

}

});

keypad.add(btn3);

JButton btn4 = new JButton("4");
btn4.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        Disp.setText(Disp.getText() + "4");
        textBillerId.setText(textBillerId.getText() + "4");
        textrefno.setText(textrefno.getText() + "4");
        textamount.setText(textamount.getText() + "4");
        textphno.setText(textphno.getText() + "4");
        texttopup.setText(texttopup.getText() + "4");
        textconfirmnum.setText(textconfirmnum.getText() + "4");
        fundtrans2.setText(fundtrans2.getText() + "4");
        fundtrans.setText(fundtrans.getText() + "4");
    }
});

keypad.add(btn4);

JButton btn5 = new JButton("5");
btn5.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        Disp.setText(Disp.getText() + "5");
        textBillerId.setText(textBillerId.getText() + "5");
        textrefno.setText(textrefno.getText() + "5");
        textamount.setText(textamount.getText() + "5");
        textphno.setText(textphno.getText() + "5");
        texttopup.setText(texttopup.getText() + "5");
        textconfirmnum.setText(textconfirmnum.getText() + "5");
        fundtrans2.setText(fundtrans2.getText() + "5");
        fundtrans.setText(fundtrans.getText() + "5");
    }
});

keypad.add(btn5);

JButton btn6 = new JButton("6");
btn6.addActionListener(new ActionListener() {

```

```

        public void actionPerformed(ActionEvent e) {
            Disp.setText(Disp.getText() + "6");
            textBillerId.setText(textBillerId.getText() + "6");
            textrefno.setText(textrefno.getText() + "6");
            textamount.setText(textamount.getText() + "6");
            textphno.setText(textphno.getText() + "6");
            texttopup.setText(texttopup.getText() + "6");
            textconfirmnum.setText(textconfirmnum.getText() + "6");
            fundtrans2.setText(fundtrans2.getText() + "6");
            fundtrans.setText(fundtrans.getText() + "6");
        }
    });
    keypad.add(btn6);

 JButton btn7 = new JButton("7");
 btn7.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        Disp.setText(Disp.getText() + "7");
        textBillerId.setText(textBillerId.getText() + "7");
        textrefno.setText(textrefno.getText() + "7");
        textamount.setText(textamount.getText() + "7");
        textphno.setText(textphno.getText() + "7");
        texttopup.setText(texttopup.getText() + "7");
        textconfirmnum.setText(textconfirmnum.getText() + "7");
        fundtrans2.setText(fundtrans2.getText() + "7");
        fundtrans.setText(fundtrans.getText() + "7");
    }
});
keypad.add(btn7);

 JButton btn8 = new JButton("8");
 btn8.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        Disp.setText(Disp.getText() + "8");
        textBillerId.setText(textBillerId.getText() + "8");
        textrefno.setText(textrefno.getText() + "8");
        textamount.setText(textamount.getText() + "8");
        textphno.setText(textphno.getText() + "8");
        texttopup.setText(texttopup.getText() + "8");
        textconfirmnum.setText(textconfirmnum.getText() + "8");
        fundtrans2.setText(fundtrans2.getText() + "8");
        fundtrans.setText(fundtrans.getText() + "8");
    }
});

```

```

keypad.add(btn8);

JButton btn9 = new JButton("9");
btn9.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        Disp.setText(Disp.getText() + "9");
        textBillerId.setText(textBillerId.getText() + "9");
        textrefno.setText(textrefno.getText() + "9");
        textamount.setText(textamount.getText() + "9");
        textphno.setText(textphno.getText() + "9");
        texttopup.setText(texttopup.getText() + "9");
        textconfirmnum.setText(textconfirmnum.getText() + "9");
        fundtrans2.setText(fundtrans2.getText() + "9");
        fundtrans.setText(fundtrans.getText() + "9");
    }
});
keypad.add(btn9);

JButton btnempty = new JButton("");
keypad.add(btnempty);

JButton btn0 = new JButton("0");
btn0.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        Disp.setText(Disp.getText() + "0");
        textBillerId.setText(textBillerId.getText() + "0");
        textrefno.setText(textrefno.getText() + "0");
        textamount.setText(textamount.getText() + "0");
        textphno.setText(textphno.getText() + "0");
        texttopup.setText(texttopup.getText() + "0");
        textconfirmnum.setText(textconfirmnum.getText() + "0");
        fundtrans2.setText(fundtrans2.getText() + "0");
        fundtrans.setText(fundtrans.getText() + "0");
    }
});
keypad.add(btn0);

JButton btnempty_2 = new JButton("");
keypad.add(btnempty_2);

```

```

//enter, cancel, clear button
JPanel special = new JPanel();
special.setVisible(false);
special.setBounds(510, 392, 232, 59);
bckground.add(special);
special.setLayout(new GridLayout(0, 3, 0, 0));

btnEnter = new JButton("ENTER");
btnEnter.setEnabled(false);
btnEnter.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String text = Disp.getText();
        String pinEntry = "0401"; //pin = 0401
        while(true) {
            if (pinEntry.equals(text)) {
                Disp.setVisible(false);
                txtpnPin.setVisible(false);
                txtpnenter.setVisible(false);
                btnEnter.setEnabled(false);
                btnClear.setEnabled(false);
                txtpnWelcome.setVisible(false);

                //menu visible
                txtpnmenu.setVisible(true);
                btnBal.setVisible(true);
                btnWithdraw.setVisible(true);
                btnBill.setVisible(true);
                btnFast.setVisible(true);
                btnTopup.setVisible(true);
                btnDepo.setVisible(true);
                btnTrans.setVisible(true);
                btnbck.setVisible(false);
                WRONG.setVisible(false);
                Disp.setText(null);

                break;
            }else {
                WRONG.setVisible(true);
                Disp.setText(null);
                return;
            }
        }
    }
})

```

```

        }

});

btnEnter.setFont(new Font("Tahoma", Font.BOLD, 9));
btnEnter.setBackground(new Color(34, 139, 34));
btnEnter.setForeground(new Color(0, 0, 0));
special.add(btnEnter);

btnClear = new JButton("CLEAR");
btnClear.setEnabled(false);
btnClear.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        Disp.setText(null);
        textBillerId.setText(null);
        textrefno.setText(null);
        textamount.setText(null);
        textphno.setText(null);
        textconfirmnum.setText(null);
        fundtrans.setText(null);
        fundtrans2.setText(null);
    }
});
btnClear.setBackground(new Color(255, 255, 0));
btnClear.setFont(new Font("Tahoma", Font.BOLD, 9));
special.add(btnClear);

JButton btnCancel = new JButton("CANCEL");
btnCancel.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        frame = new JFrame("CANCEL");
        if(JOptionPane.showConfirmDialog(frame, "Thank you") ==
JOptionPane.YES_OPTION) {
            System.exit(0);
        }
    }
});

}

```

```

btnCancel.setFont(new Font("Tahoma", Font.BOLD, 9));
btnCancel.setBackground(new Color(255, 0, 0));
special.add(btnCancel);

//card transition

card = new Card();
card.addMouseListener(new MouseAdapter() {
    @Override
    public void mouseClicked(MouseEvent e) {
        card.transition(slotcard.getX()+10, slotcard.getY()+10);
        txtpnWelcome.setVisible(false);
        txtpnenter.setText("click cancel to exit");

        //pin
        textpnPin.setVisible(true);
        Disp.setVisible(true);
        keypad.setVisible(true);
        btnEnter.setEnabled(true);
        btnClear.setEnabled(true);
        special.setVisible(true);
    }
});

card.setBackground(new Color(216, 191, 216));
card.setBounds(592, 64, 122, 150);
bckground.add(card);

slotcard = new JPanel();
slotcard.setBackground(new Color(192, 192, 192));
slotcard.setBorder(new LineBorder(new Color(245, 245, 245),
10));
slotcard.setBounds(564, 54, 170, 26);
bckground.add(slotcard);

```

$\}$   
 $\}$

## Receipt.java

```
import javax.swing.JPanel;
import javax.swing.Timer;
import javax.swing.JTextPane;
import javax.swing.UIManager;

public class Receipt extends JPanel {
    /**
     * serialVersionUID
     */

    private static final long serialVersionUID = 1L;
    int w, maxheight, h;
    JTextPane textPane;

    //e is input event handler = event object that contains info regarding action
    // -> lambda expression used to implement simple event listener and I used for mouse
    click action
    Timer timer = new Timer(3, (e)->update()); //Timer timer = new Timer (period, action
    listener)

    public Receipt() {
        setLayout(null);

        textPane = new JTextPane();
        textPane.setEditable(false);
        textPane.setBackground(UIManager.getColor("Button.background"));
        textPane.setBounds(10, 11, 210, 334);
        add(textPane);

    }

    private void update() {

        // increase the h
        h++;
        setSize(w, h);
        repaint();
        if (h==maxheight) { // if h is at maximum, timer.stop();
            timer.stop();
        }
    }
}
```

```

public void animate(String fcash ) {
    this.setVisible(true);
    // set dimensions
    w = getWidth();
    h = 0;
    maxheight = getHeight();
    update();
    // start Timer (clock starts ticking)
    timer.start();
    textPane.setText("-----\n" + "RECEIPT\n\n\n\n"
+ "Withdraw cash RM " + fcash + "\n\n\n\n-----\n");
}

public void animated(String cash ) {
    this.setVisible(true);
    // set dimensions
    w = getWidth();
    h = 0;
    maxheight = getHeight();
    update();
    // start Timer (clock starts ticking)
    timer.start();
    textPane.setText("-----\n" + "RECEIPT\n\n\n\n"
+ "Deposit cash RM " + cash + "\n\n\n\n-----\n");
}

public void transition(String failed ) {
    this.setVisible(true);
    // set dimensions
    w = getWidth();
    h = 0;
    maxheight = getHeight();
    update();
    // start Timer (clock starts ticking)
    timer.start();
    textPane.setText("-----\n" + "RECEIPT\n\n\n\n"
+ "transaction failed " + failed + "\n\n\n\n-----\n");
}
}

```

## Card.java

```
import javax.swing.JPanel;
import javax.swing.Timer;

public class Card extends JPanel {
    /**
     * serialVersionUID
     */
    private static final long serialVersionUID = 1L;
    int x, y, w, h, toX, toY;

    //e is input event handler = event object that contains info regarding action
    // -> lambda expression used to implement simple event listener and I used for mouse
    click action
    Timer timer = new Timer(2, (e)->click()); //Timer timer = new Timer (period, action
    listener)

    public Card() {
        setLayout(null); //no layout manager is assigned and x, y is a specific
        component
    }
    public void transition(int tx, int ty) {
        // set target position
        toX = tx;
        toY = ty;
        // set starting position
        x = getX();
        y = getY();
        // set dimensions
        w = getWidth();
        h = getHeight();
        // start Timer (clock starts ticking)
        timer.start();
    }
    private void click() {
        if (x<toX) {
            x = x + 20;
        }
        if (y>toY) {
            y = y - 2;
        }
        // new position
    }
}
```

```
setLocation(x, y);
repaint();
// if target-position reached: stop timer (stop animation)
if ((x>=toX) && (y<=toY)) {
    // lower the h
    h--;
    setSize(w, h);
    // if h is 0, timer.stop();
    if (h<=0) {
        timer.stop();
    }
}
}
```

### **BankNote.java**

```
import javax.swing.JPanel;
import javax.swing.Timer;
import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JLabel;
import java.awt.Font;
import java.awt.Color;

public class BankNote extends JPanel {
    /**
     * serialVersionUID
     */
    private static final long serialVersionUID = 1L;
    int w, maxheight, h;
    private JLabel Amount;

    //e is input event handler = event object that contains info regarding action
    // -> lambda expression used to implement simple event listener and I used for mouse
    click action
    Timer timer = new Timer(60, (e)->update()); //Timer timer = new Timer (period,
    action listener)

    public BankNote() {
        setBackground(new Color(0, 139, 139));
        Amount = new JLabel("100");
        Amount.setForeground(new Color(255, 255, 255));
        Amount.setBounds(44, 483, 221, 90);
        Amount.setFont(new Font("Arial", Font.BOLD, 17));
        GroupLayout groupLayout = new GroupLayout(this);
        groupLayout.setHorizontalGroup(
            groupLayout.createParallelGroup(Alignment.LEADING)
                .addGroup(groupLayout.createSequentialGroup()
                    .addGap(22)
                    .addComponent(Amount,
                    GroupLayout.PREFERRED_SIZE, 318, GroupLayout.PREFERRED_SIZE)
                    .addContainerGap(110, Short.MAX_VALUE)))
        );
        groupLayout.setVerticalGroup(
            groupLayout.createParallelGroup(Alignment.LEADING)
                .addGroup(groupLayout.createSequentialGroup()
```

```

        .addContainerGap()
        .addComponent(Amount,
GroupLayout.PREFERRED_SIZE, 78, GroupLayout.PREFERRED_SIZE)
        .addContainerGap(146, Short.MAX_VALUE))
);
setLayout(groupLayout);
}

private void update() {

    // increase the h
    h++;
    setSize(w, h);
    repaint();
    if (h==maxheight) { // if h is at maximum, timer.stop();
        timer.stop();
        System.exit(h);
    }
}

public void animate(String fcash) {
    this.setVisible(true);
    // set dimensions
    w = getWidth();
    h = 0;
    maxheight = getHeight();
    update();
    // start Timer (clock starts ticking)
    timer.start();
    Amount.setText("RM " + fcash);
}
}

```