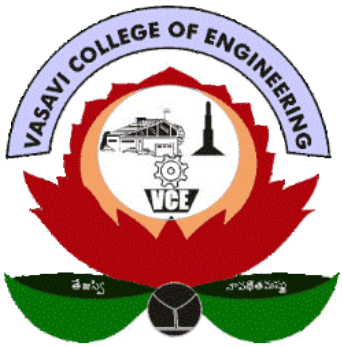


DEPARTMENT OF

COMPUTER SCIENCE ENGINEERING

VASAVI COLLEGE OF ENGINEERING

IBRAHIMBAGH, HYDERABAD-31

Affiliated to

OSMANIA UNIVERSITY

HYDERABAD

JAVA MINIPROJECT

ATM TRANSACTION SYSTEM

DONE BY-

P. GAUTHAM (1602-18-733-075)

JAIDEV SHARMA (1602-18-733-078)

CSE-B

Abstract:

ATM Transaction System deals with the account transactions of the customers. An automated teller machine (ATM) is an electronic banking outlet that allows customers to complete basic transactions without the aid of a branch representative or teller. Now-a-days, everyone has a bank account and ATM can be used to withdraw, deposit money into savings and current account.

This program helps us to deposit, withdraw and display money of a customer provided the customer enters correct account number and ATM pin. This program is written in Java language using Java features like Classes, Methods, Instances, Inheritances, Exceptions, Access specifiers etc… This program is useful for the customers and the bank because it increases readability, increases durability, decreases complexity, increases security regarding the transactions.

Program Implementation

```
package javaminipro;

import javax.swing.*;

import java.awt.*;
import java.awt.event.*;
import java.util.Date;

import javax.swing.UIManager;
import javax.swing.plaf.ColorUIResource;
public class ATMDesign extends JFrame implements ActionListener {

    public java.util.Date date;
    JFrame ATMframe = new JFrame("ATM Menu");
    int PIN = 1234;
    int ctr = 0;
    int NewPIN;
    double money = 0.0;
    JLabel lPIN, lWithdraw, lDeposit, lChangePIN;
    JPasswordField pPIN, pCurrentPIN, pNewPIN, pConfirmPIN;
    JButton bOK, bClose, bClear, bWithdraw, bWithdrawOK,
bWithdrawCancel,
    bDeposit, bInquiry, bChangePIN;
    JTextField tdWithdraw, tDeposit;
    public int getPIN() {
        return PIN;
    }
    public void setPIN(int pn) {
        this.PIN = pn;
    }
    public void changePIN(int PIN) {
        setPIN(PIN);
```

```
    }

    public ATMDesign() {
        UIManager UI = new UIManager();
        UI.put("OptionPane.background", Color.black);
        UI.put("Panel.background", Color.black);
        UI.put("Button.background", Color.white);
        UI.put("PasswordField.background", new ColorUIResource(204,
255, 255));
        UI.put("TextField.background", new ColorUIResource(255, 204,
204));

        FlowLayout fl = new FlowLayout();
        setLayout(fl);

        lPIN = new JLabel("<html><font size = 5>PLEASE ENTER
YOUR PIN : ");
        pPIN = new JPasswordField(10);
        bOK = new JButton("OK");
        bClear = new JButton("Clear");
        bClose = new JButton("Close");



        setTitle("ATM");
        setSize(304, 104);
        setLocation(390, 170);
        setVisible(true);
        setResizable(false);

        add(lPIN);
        add(pPIN);
        add(bOK);
        add(bClear);
        add(bClose);
        bOK.addActionListener(this);
```

```
        bClear.addActionListener(this);
        bClose.addActionListener(this);
    }
    public void actionPerformed(ActionEvent ae) {

        if (ae.getSource() == bOK) {
            int PIN = Integer.parseInt(pPIN.getText());
            if (PIN == getPIN()) {
                Object[] options = {
                    "WITHDRAW",
                    "DEPOSIT",
                    "CHECK CURRENT BALANCE",
                    "CHANGE PIN"
                };
                int atm = JOptionPane.showOptionDialog(null,
                    "<html><font size = 20><font color = white>Select
transaction: ", "WELCOME TO THE ATM SYSTEM",
                    JOptionPane.DEFAULT_OPTION,
                    JOptionPane.QUESTION_MESSAGE, null, options,
options[0]);
                switch (atm) {
                    case 0:
                        JTextField tfWithdraw = new JTextField();
                        double mod = 0.0;
                        double WithdrawOptions =
JOptionPane.showOptionDialog(null,
                            new Object[] {
                                "<html><font size = 5><font color = white>HOW
MUCH DO YOU WANT TO WITHDRAW? :",
                                tfWithdraw,
                                null
                            },
                            "Withdraw", JOptionPane.OK_CANCEL_OPTION,
                            JOptionPane.QUESTION_MESSAGE,
                            null, null, null);
```

```
                    mod = (Double.parseDouble(tfWithdraw.getText())) %
100;
                    if (WithdrawOptions == JOptionPane.OK_OPTION) {
                        if (Double.parseDouble(tfWithdraw.getText()) >
money) {
                            JOptionPane.showMessageDialog(null,
"<html><font size = 5><font color = white>Insufficient Balance. ",
"Withdraw",
                                JOptionPane.WARNING_MESSAGE);
                        } else if (Double.parseDouble(tfWithdraw.getText())
== money) {
                            JOptionPane.showMessageDialog(null,
"<html><font size = 4><font color = white>Maintaining balance is 100
RS!", null, JOptionPane.INFORMATION_MESSAGE);
                        } else if (mod == 0) {
                            money = money -
Double.parseDouble(tfWithdraw.getText());
                        } else {
                            JOptionPane.showMessageDialog(null,
"<html><font size = 4><font color = white>Amount should be divisible
by 100.\n", null, JOptionPane.INFORMATION_MESSAGE);
                        }
                    } else {
                        int WResponse =
JOptionPane.showConfirmDialog(null,
                            "<html><font size = 4><font color = white>Are you
sure do you want to cancel the transaction?", null,
                            JOptionPane.YES_NO_OPTION);
                    }
                    break;
                case 1:
                    JTextField tfldDeposit = new JTextField();
                    double DepositOptions =
JOptionPane.showOptionDialog(null,
                        new Object[] {
```

```
                    "<html><font size = 3><font color = blue>How
much do you want to Deposit? : ",
                    tfldDeposit,
                    null
                },
                "Deposit", JOptionPane.OK_CANCEL_OPTION,
                JOptionPane.QUESTION_MESSAGE,
                null, null, null);
            if (DepositOptions == JOptionPane.OK_OPTION) {
                if (Double.parseDouble(tfldDeposit.getText()) < 100) {
                    JOptionPane.showMessageDialog(null,
"<html><font size = 4><font color = blue>Minimum deposit is 100 RS.
", "Deposit",
                            JOptionPane.WARNING_MESSAGE);
                } else {
                    money = money +
Double.parseDouble(tfldDeposit.getText());
                    JOptionPane.showMessageDialog(null,
"<html><font size = 5><font color = blue>THANK YOU!");
                }
            } else {
                int WResponse =
JOptionPane.showConfirmDialog(null,
                    "<html><font size = 3><font color = blue>ARE
YOU SURE DO YOU WANT TO CANCEL?", null,
                    JOptionPane.YES_NO_OPTION);
                if (WResponse == JOptionPane.YES_OPTION) {
                    System.exit(0);
                } else {
                    pPIN.setText("");
                }

            }
            break;
```

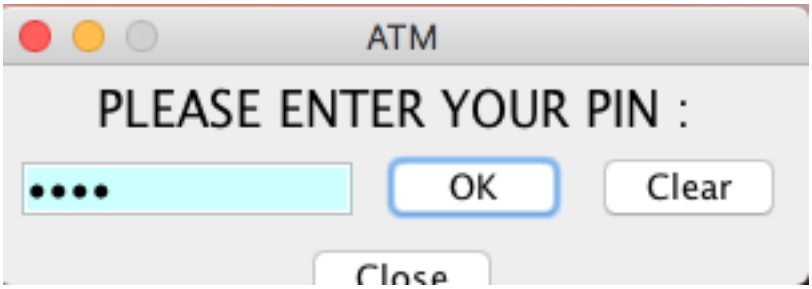
```
                case 2:
                    Date date = new Date();
                    JOptionPane.showMessageDialog(null, "<html><font
size = 4><font color = white>As of " + date.toString() + "<html><font
size = 4><font color = white>, \n" + "<html><font size = 4><font color
= white> your balance is: " +
                        "<html><font size = 4><font color = blue>P " +
money, "BALANCE ENQUIRY",
JOptionPane.INFORMATION_MESSAGE);

                    break;

                case 3:
                    JPasswordField pfldCurrentPIN = new JPasswordField();
                    int CurrentPIN = JOptionPane.showOptionDialog(null,
                        new Object[] {
                            "<html><font size = 3><font color = blue>ENTER
YOUR CURRENT PIN CODE: ",
                            pfldCurrentPIN,
                            null
                        },
                        "Current PIN", JOptionPane.OK_CANCEL_OPTION,
                        JOptionPane.QUESTION_MESSAGE,
                        null, null, null);

                    if (CurrentPIN == JOptionPane.OK_OPTION) {

                        if (Integer.parseInt(pfldCurrentPIN.getText()) == PIN)
{
                            JPasswordField pfldNewPIN = new
JPasswordField();
                            int NewPIN = JOptionPane.showOptionDialog(null,
                                new Object[] {
                                    "<html><font size = 3><font color =
blue>ENTER YOUR NEW PIN CODE: ",
```

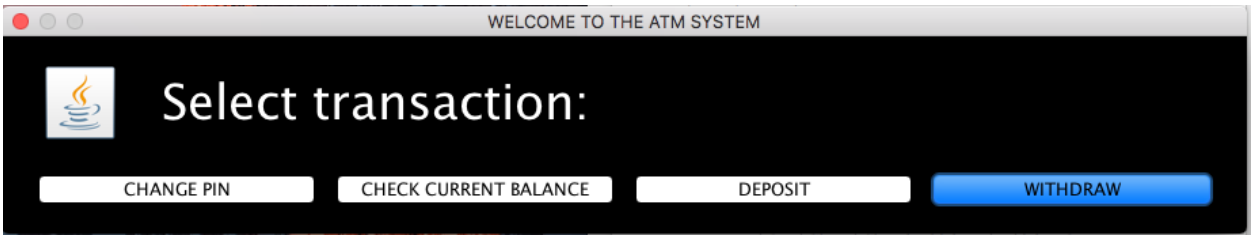
```
                        pfldNewPIN,
                        null
                    },
                    "New PIN",
JOptionPane.OK_CANCEL_OPTION,
                    JOptionPane.QUESTION_MESSAGE,
                    null, null, null);

                if (NewPIN == JOptionPane.OK_OPTION) {
                    JPasswordField pfldConfirmPIN = new
JPasswordField();
                    int ConfirmPIN =
JOptionPane.showOptionDialog(null,
                        new Object[] {
                            "<html><font size = 3><font color =
blue>CONFIRM PIN CODE: ",
                            pfldConfirmPIN,
                            null
                        },
                        "Confirm PIN",
JOptionPane.OK_CANCEL_OPTION,
                        JOptionPane.QUESTION_MESSAGE,
                        null, null, null);

                    if (ConfirmPIN == JOptionPane.OK_OPTION) {
                        if (Integer.parseInt(pfldConfirmPIN.getText())
== Integer.parseInt(pfldNewPIN.getText())) {

changePIN(Integer.parseInt(pfldNewPIN.getText()));
                        } else {
                            JOptionPane.showMessageDialog(null,
"<html><font size = 4><font color = red>PIN Code does not match.",
null, JOptionPane.ERROR_MESSAGE);

                        }
```

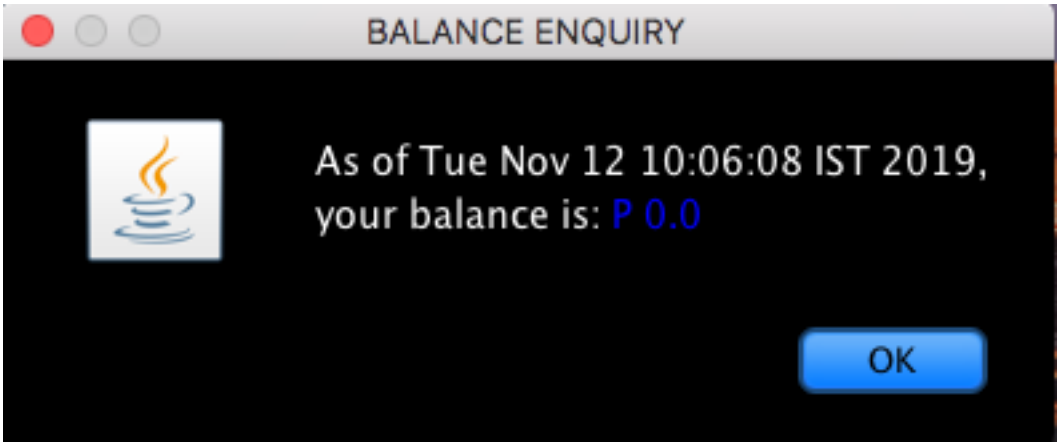
```
                        }
                    }
                } else {
                    JOptionPane.showMessageDialog(null,
"<html><font size = 4><font color = red>Invalid PIN!", "Change PIN",
JOptionPane.ERROR_MESSAGE);

                }
            }


                break;
            }
            int end = JOptionPane.showConfirmDialog(null,
"<html><font size = 4><font color = white>DO YOU WANT TO
CONTINUE?", null,
                JOptionPane.YES_NO_OPTION);
            if (end == JOptionPane.YES_OPTION) {
                pPIN.options();
            } else {
                System.exit(0);
            }
        } else {
            JOptionPane.showMessageDialog(null, "<html><font size =
4><font color = red>Invalid PIN!", "ATM",
JOptionPane.WARNING_MESSAGE);
            ctr += 1;
            pPIN.setText("");
            if ((ctr > 1) && (ctr == 2)) {
                JOptionPane.showMessageDialog(null, "<html><font size =
3><font color = red>You only have one last try to input your PIN.",
"ATM", JOptionPane.WARNING_MESSAGE);
            }
            if (ctr > 2) {
```

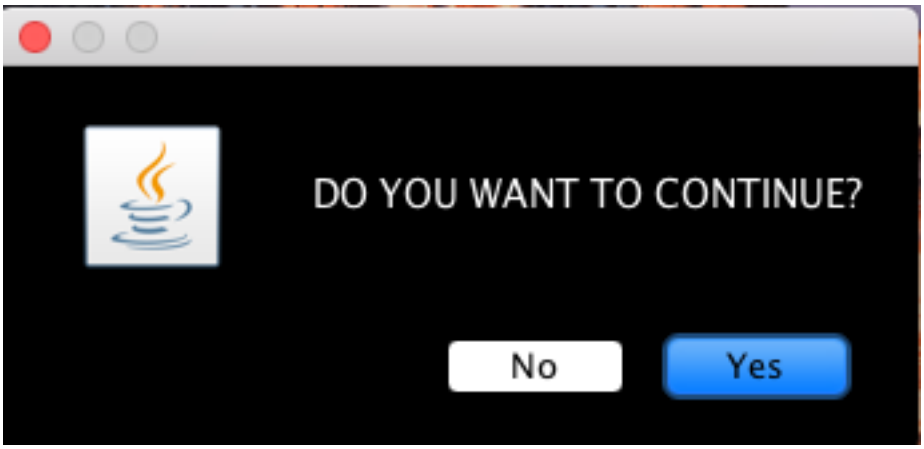
```
                JOptionPane.showMessageDialog(null, "<html><font size =
4><font color = red>Captured Card!", "ATM",
JOptionPane.ERROR_MESSAGE);
                System.exit(0);
             }
          }
       } else if (ae.getSource() == bClear) {
          pPIN.setText("");
       } else if (ae.getSource() == bClose) {
          int exit = JOptionPane.showConfirmDialog(null, "<html><font
size = 4><font color = blue>ARE YOU SURE YOU WANT TO
EXIT?", "Exit",
             JOptionPane.YES_NO_OPTION);
          if (exit == JOptionPane.YES_OPTION) {
             JOptionPane.showMessageDialog(null, "<html><font size =
4><font color = yellow>Thank You for using the ATM!", "Exit",
JOptionPane.PLAIN_MESSAGE);
             System.exit(0);
          } else {
             pPIN.setText("");
          }

       }
   }
   public static void main(String args[]) {
      ATMDesign ATM = new ATMDesign();
   }
}
```

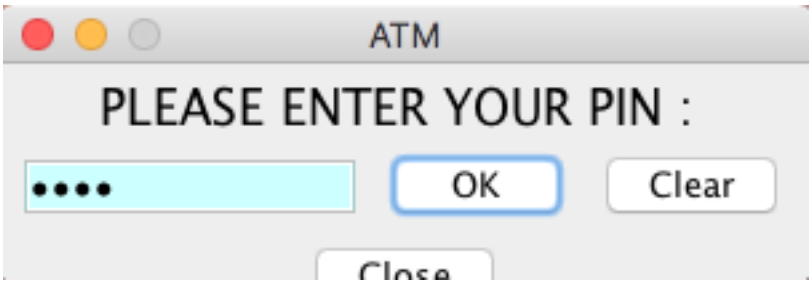
Sample Test Case

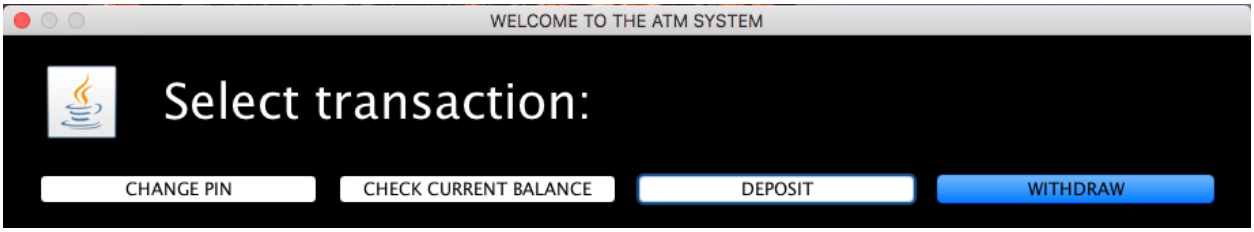


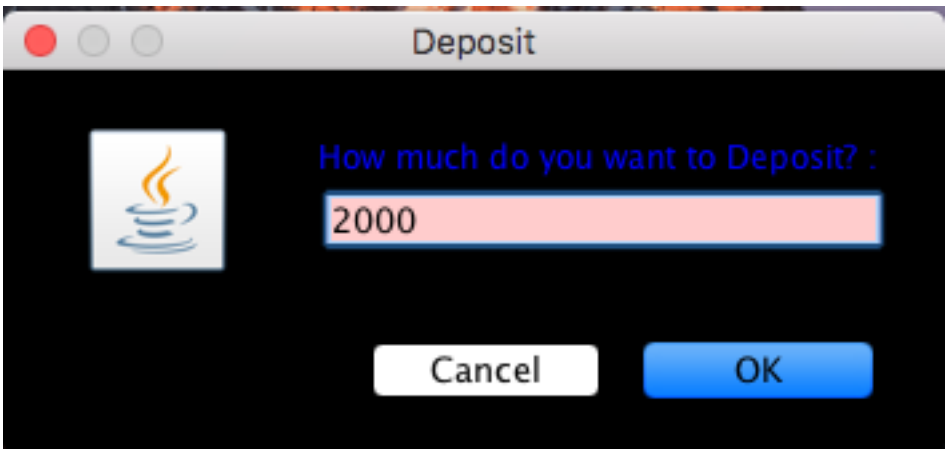


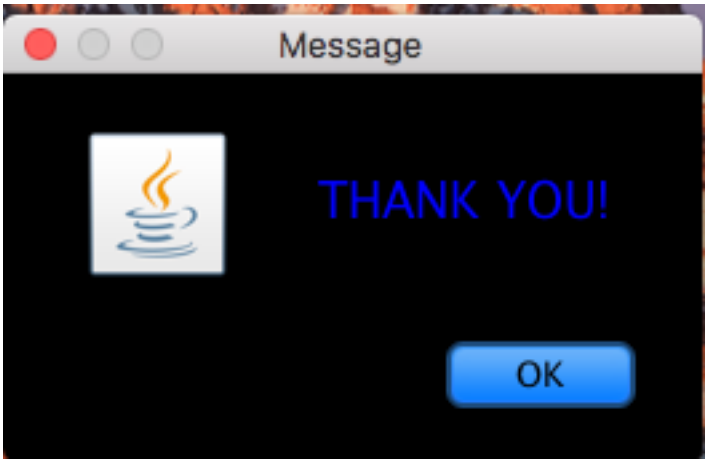


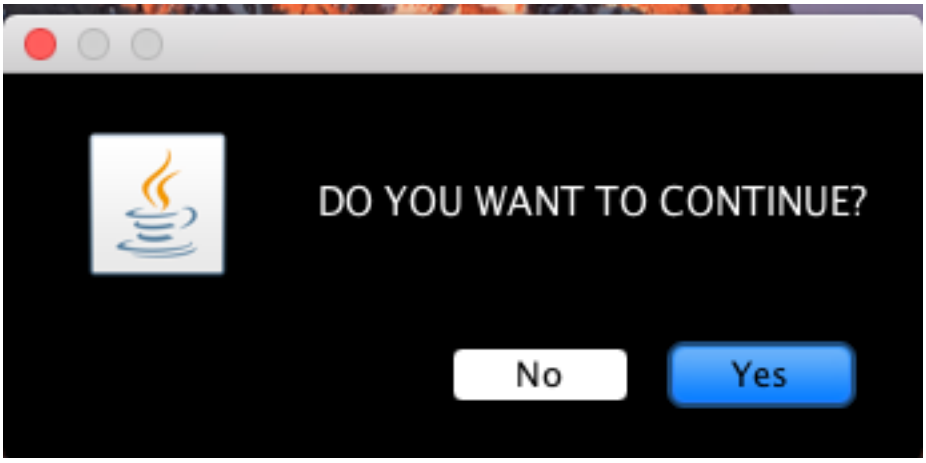

DO YOU WANT TO CONTINUE?
No
Yes

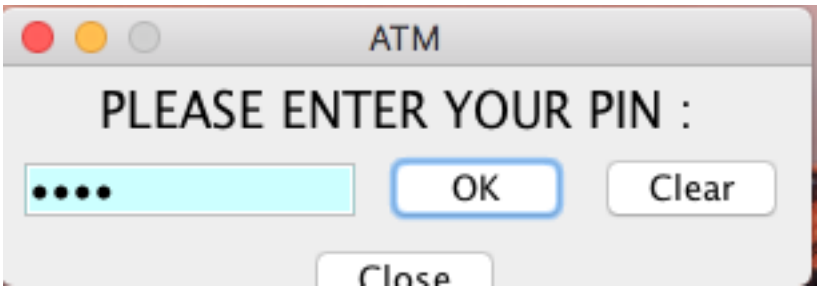

ATM
PLEASE ENTER YOUR PIN :
OK
Clear

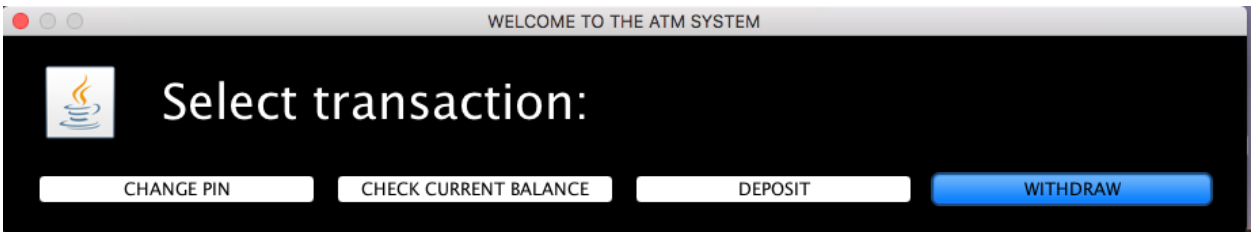

WELCOME TO THE ATM SYSTEM
Select transaction:
CHANGE PIN
CHECK CURRENT BALANCE
DEPOSIT
WITHDRAW

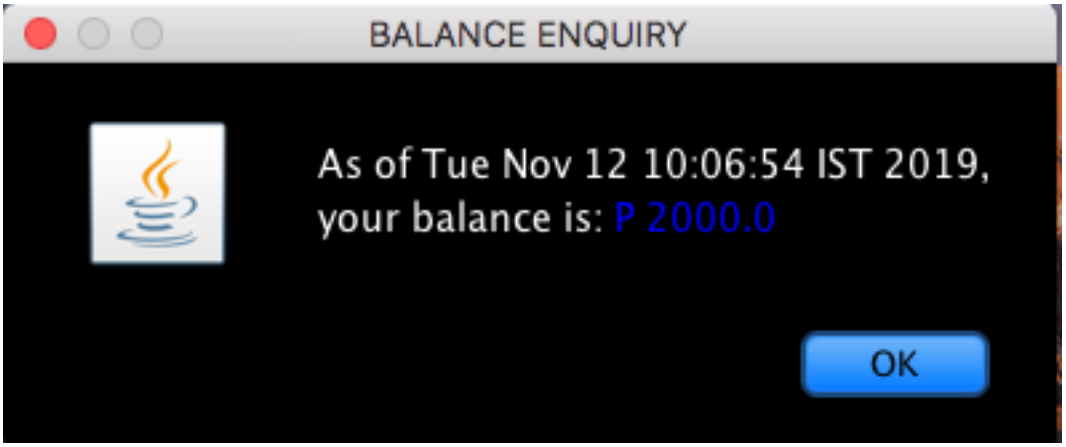

Deposit
How much do you want to Deposit? :
2000
Cancel
OK

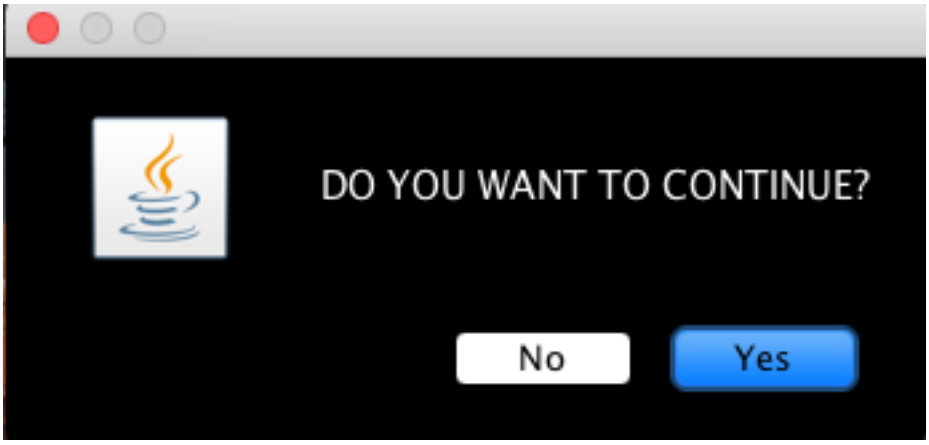

Message
THANK YOU!
OK

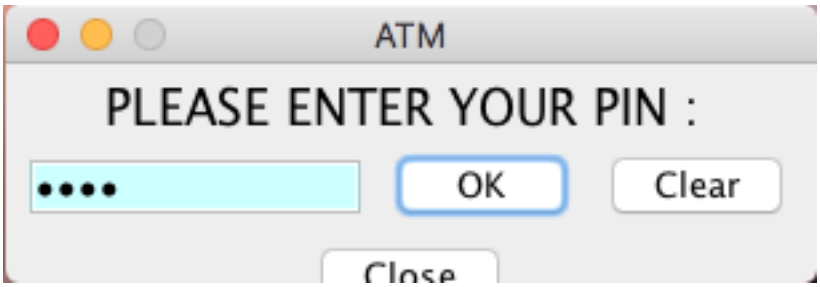

DO YOU WANT TO CONTINUE?
No
Yes

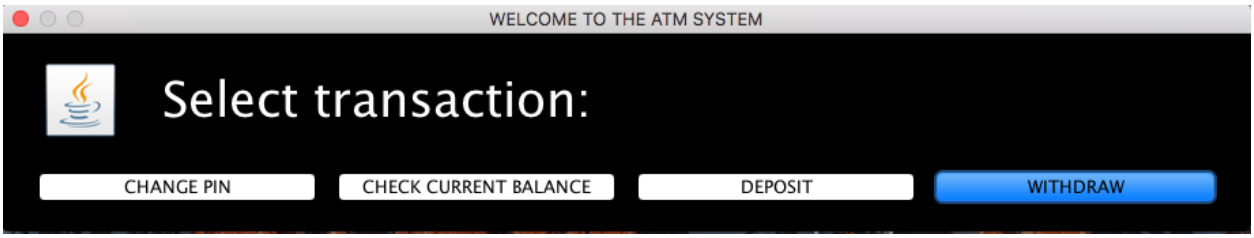

ATM
PLEASE ENTER YOUR PIN :
OK
Clear
Close

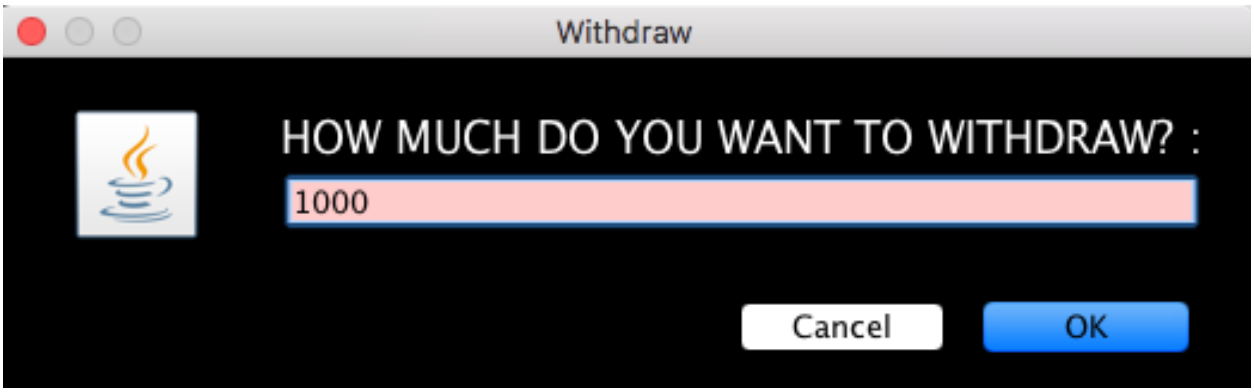

WELCOME TO THE ATM SYSTEM
Select transaction:
CHANGE PIN
CHECK CURRENT BALANCE
DEPOSIT
WITHDRAW

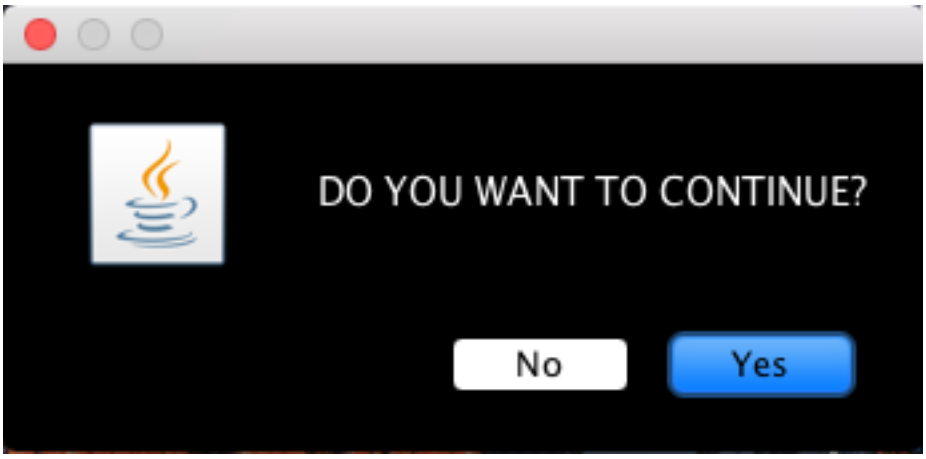

BALANCE ENQUIRY
As of Tue Nov 12 10:06:54 IST 2019,
your balance is: P 2000.0
OK

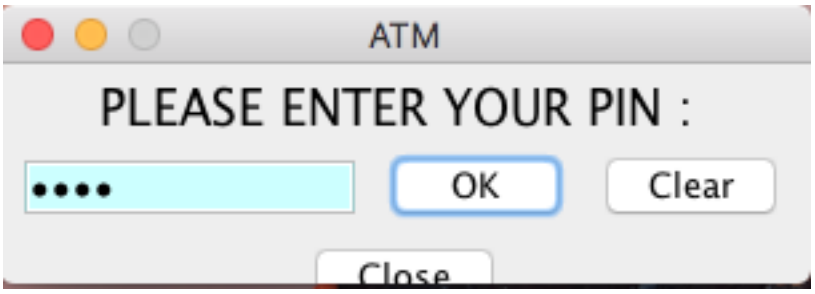

DO YOU WANT TO CONTINUE?
No
Yes

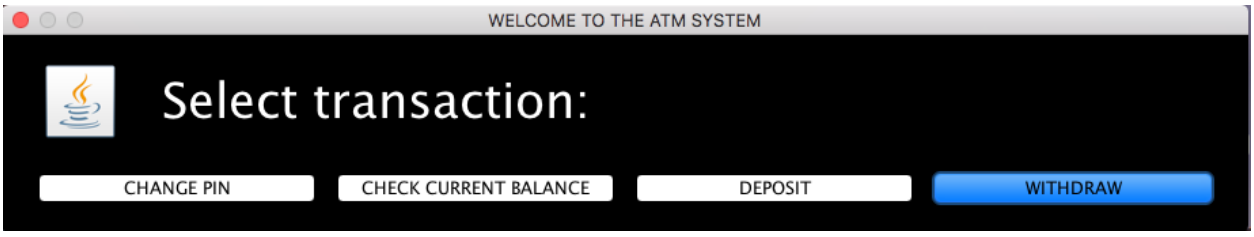

ATM
PLEASE ENTER YOUR PIN :
OK
Clear
Close

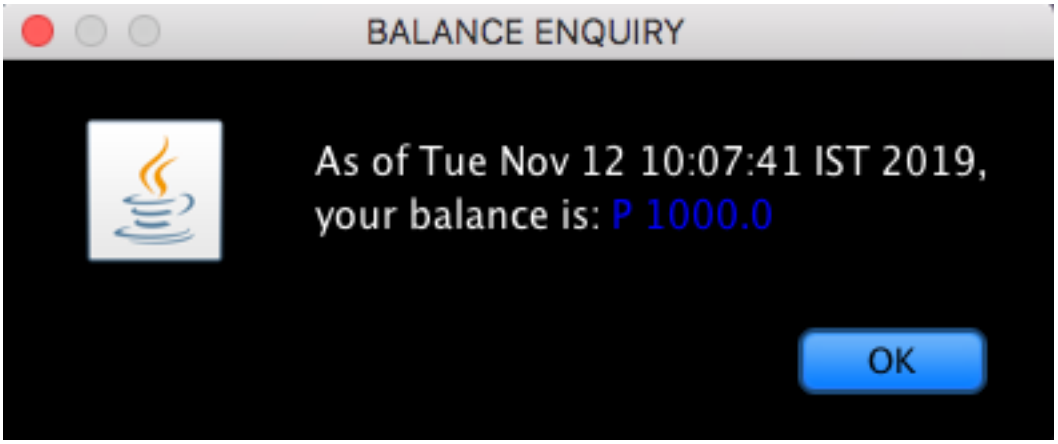

WELCOME TO THE ATM SYSTEM
Select transaction:
CHANGE PIN
CHECK CURRENT BALANCE
DEPOSIT
WITHDRAW

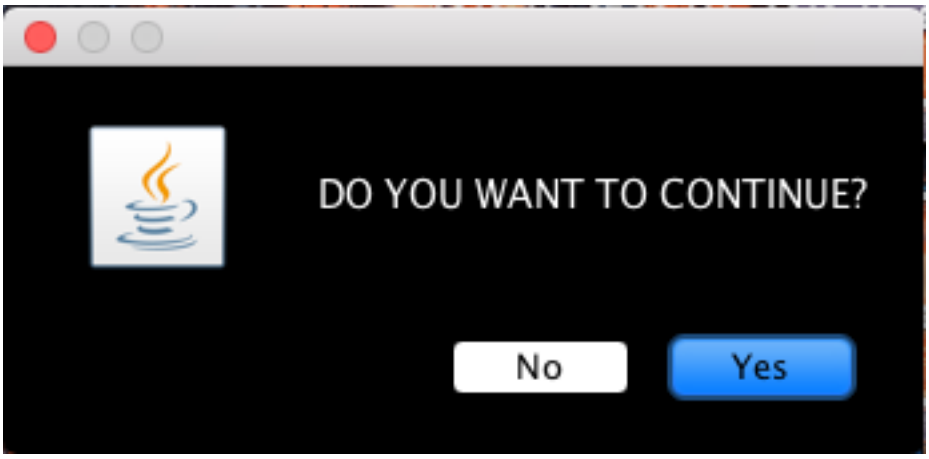

Withdraw
HOW MUCH DO YOU WANT TO WITHDRAW? :
1000
Cancel
OK

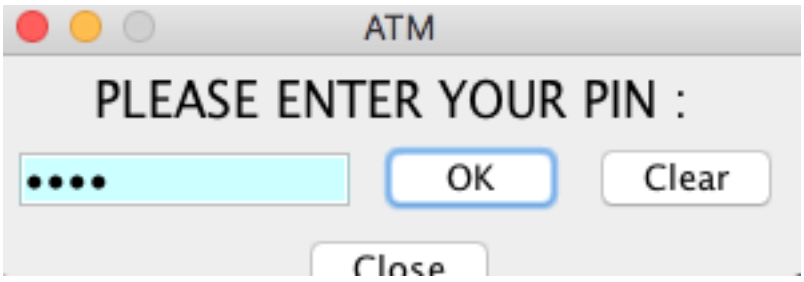

DO YOU WANT TO CONTINUE?
No
Yes

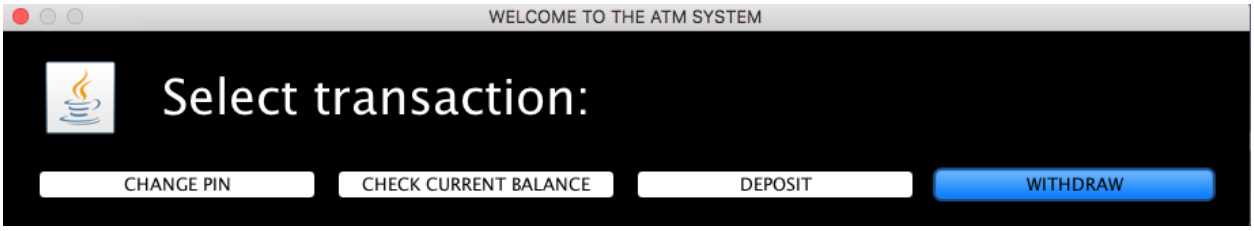

ATM
PLEASE ENTER YOUR PIN :
OK
Clear
Close

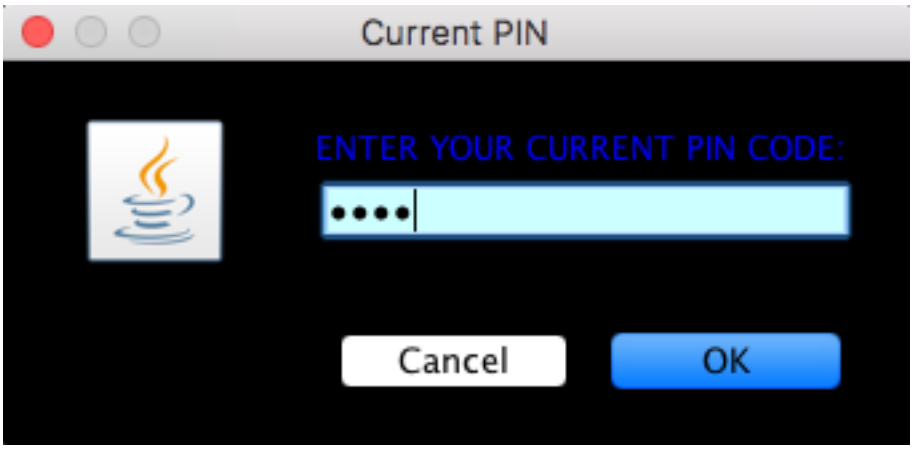

WELCOME TO THE ATM SYSTEM
Select transaction:
CHANGE PIN
CHECK CURRENT BALANCE
DEPOSIT
WITHDRAW

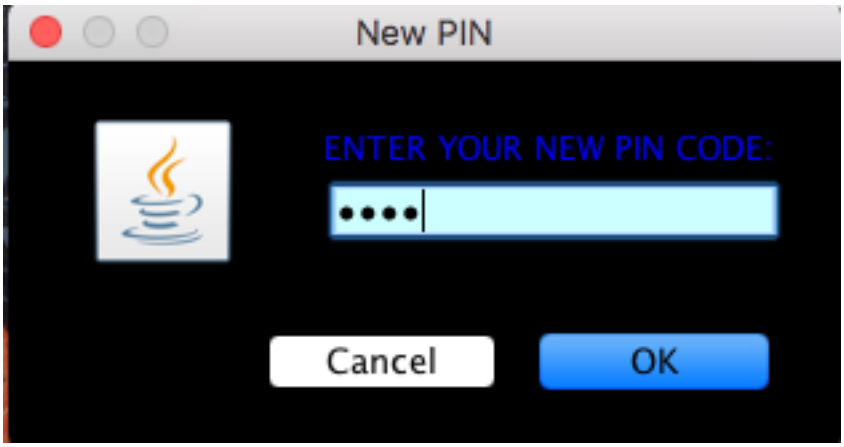

BALANCE ENQUIRY
As of Tue Nov 12 10:07:41 IST 2019,
your balance is: P 1000.0
OK

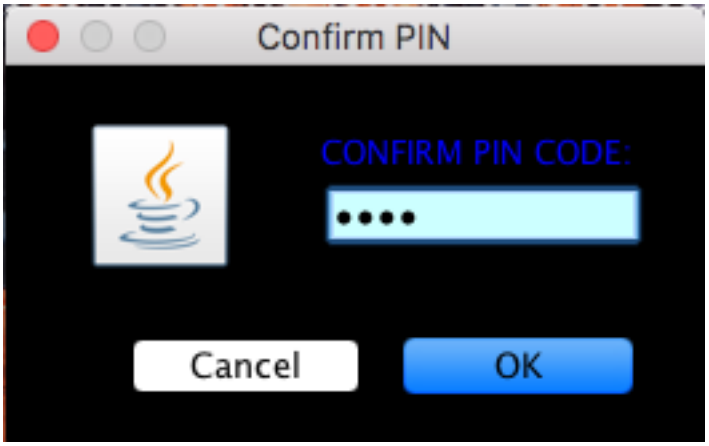

DO YOU WANT TO CONTINUE?
No
Yes

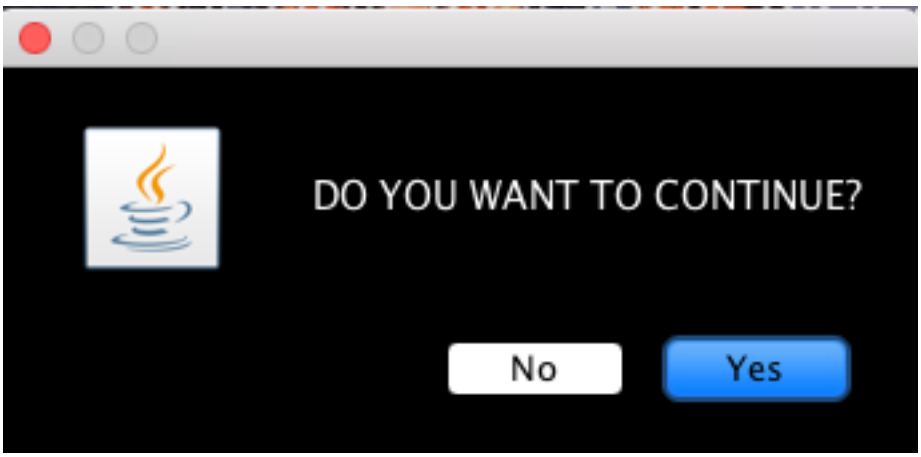

ATM
PLEASE ENTER YOUR PIN :
OK
Clear
Close

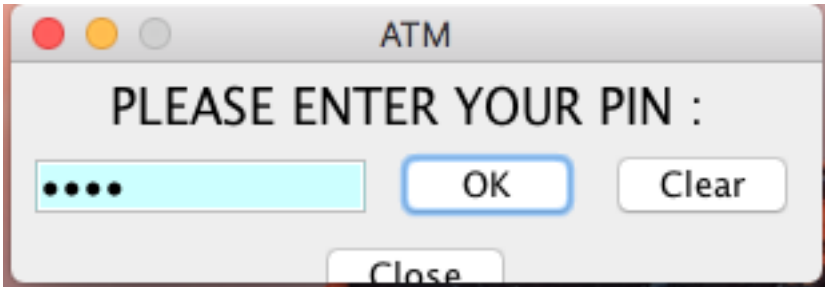

WELCOME TO THE ATM SYSTEM
Select transaction:
CHANGE PIN
CHECK CURRENT BALANCE
DEPOSIT
WITHDRAW

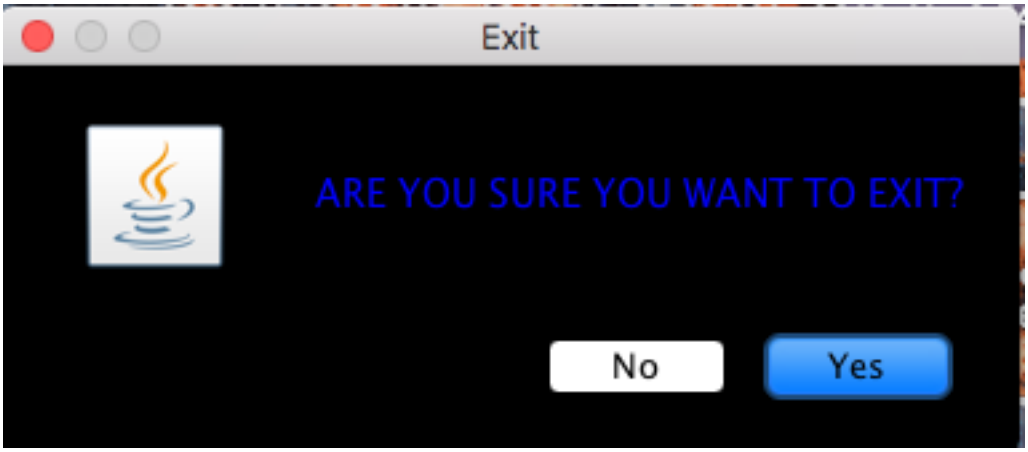

Current PIN
ENTER YOUR CURRENT PIN CODE:
Cancel
OK


New PIN
ENTER YOUR NEW PIN CODE:
Cancel
OK


Confirm PIN
CONFIRM PIN CODE:
Cancel
OK


DO YOU WANT TO CONTINUE?
No
Yes


ATM
PLEASE ENTER YOUR PIN :
OK
Clear
Close


Exit
ARE YOU SURE YOU WANT TO EXIT?
No
Yes