

/*

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Task 2-ATM interface.

Oasis Infobyte Task 2

*/

```
package Task1;
```

```
import java.util.Scanner;
```

```
class BankAccount {
```

```
    String name;
```

```
    String userName;
```

```
    String password;
```

```
    String accountNo;
```

```
    float balance = 0f;
```

```
    int transactions = 0;
```

```
    String transactionHistory = "";
```

```
    // BankAccount(String name, String userName, String password, String accountNo) {
```

```
        // this.name = name;
```

```
        // this.userName = userName;
```

```
        // this.password = password;
```

```
        // this.accountNo = accountNo;
```

```
    // }
```

```
    public void register() {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        System.out.print("\nEnter Your Name - ");
```

```
        this.name = sc.nextLine();
```

```
        System.out.print("\nEnter Your Username - ");
```

```
        this.userName = sc.nextLine();
```

```

        System.out.print("\nEnter Your Password - ");
        this.password = sc.nextLine();
        System.out.print("\nEnter Your Account Number - ");
        this.accountNo = sc.nextLine();
        System.out.println("\nRegistration completed..kindly login");
    }

```

```

public boolean login() {
    boolean isLogin = false;
    Scanner sc = new Scanner(System.in);
    while ( !isLogin ) {
        System.out.print("\nEnter Your Username - ");
        String Username = sc.nextLine();
        if ( Username.equals(userName) ) {
            while ( !isLogin ) {
                System.out.print("\nEnter Your Password - ");
                String Password = sc.nextLine();
                if ( Password.equals(password) ) {
                    System.out.print("\nLogin successful!!");
                    isLogin = true;
                }
                else {
                    System.out.println("\nIncorrect Password");
                }
            }
        }
        else {
            System.out.println("\nUsername not found");
        }
    }
    return isLogin;
}

```

```
}
```

```
public void withdraw() {
```

```
    System.out.print("\nEnter amount to withdraw - ");
```

```
    Scanner sc = new Scanner(System.in);
```

```
    float amount = sc.nextFloat();
```

```
    try {
```

```
        if ( balance >= amount ) {
```

```
            transactions++;
```

```
            balance -= amount;
```

```
            System.out.println("\nWithdraw Successfully");
```

```
            String str = amount + " Rs Withdrawed\n";
```

```
            transactionHistory = transactionHistory.concat(str);
```

```
        }
```

```
    else {
```

```
        System.out.println("\nInsufficient Balance");
```

```
    }
```

```
    }
```

```
    catch ( Exception e) {
```

```
    }
```

```
}
```

```
public void deposit() {
```

```
    System.out.print("\nEnter amount to deposit - ");
```

```
    Scanner sc = new Scanner(System.in);
```

```
    float amount = sc.nextFloat();
```

```

try {
    if ( amount <= 100000f ) {
        transactions++;
        balance += amount;
        System.out.println("\nSuccessfully Deposited");
        String str = amount + " Rs deposited\n";
        transactionHistory = transactionHistory.concat(str);
    }
    else {
        System.out.println("\nSorry...Limit is 100000.00");
    }
}

catch ( Exception e) {
}
}

```

```

public void transfer() {

```

```

    Scanner sc = new Scanner(System.in);
    System.out.print("\nEnter Receipient's Name - ");
    String receipient = sc.nextLine();
    System.out.print("\nEnter amount to transfer - ");
    float amount = sc.nextFloat();

```

```

try {
    if ( balance >= amount ) {
        if ( amount <= 50000f ) {
            transactions++;
            balance -= amount;

```

```

        System.out.println("\nSuccessfully Transferred to " +
receipent);

        String str = amount + " Rs transferred to " + receipent + "\n";
        transactionHistory = transactionHistory.concat(str);
    }
    else {
        System.out.println("\nSorry...Limit is 50000.00");
    }
}
else {
    System.out.println("\nInsufficient Balance");
}
}
catch ( Exception e) {
}
}

public void checkBalance() {
    System.out.println("\n" + balance + " Rs");
}

public void transHistory() {
    if ( transactions == 0 ) {
        System.out.println("\nEmpty");
    }
    else {
        System.out.println("\n" + transactionHistory);
    }
}
}
}

```

```

public class Task2Oasis {

    public static int takeIntegerInput(int limit) {
        int input = 0;
        boolean flag = false;

        while ( !flag ) {
            try {
                Scanner sc = new Scanner(System.in);
                input = sc.nextInt();
                flag = true;

                if ( flag && input > limit || input < 1 ) {
                    System.out.println("Choose the number between 1 to " +
limit);

                    flag = false;
                }
            }
            catch ( Exception e ) {
                System.out.println("Enter only integer value");
                flag = false;
            }
        };
        return input;
    }

    public static void main(String[] args) {

```

```

        System.out.println("\n*****WELCOME TO Baroda ATM
SYSTEM*****\n");

        System.out.println("1.Register \n2.Exit");

        System.out.print("Enter Your Choice - ");

        int choice = takeIntegerInput(2);

        if ( choice == 1 ) {

            BankAccount b = new BankAccount();

            b.register();

            while(true) {

                System.out.println("\n1.Login \n2.Exit");

                System.out.print("Enter Your Choice - ");

                int ch = takeIntegerInput(2);

                if ( ch == 1 ) {

                    if (b.login()) {

                        System.out.println("\n\n*****WELCOME
BACK " + b.name + " *****\n");

                        boolean isFinished = false;

                        while (!isFinished) {

                            System.out.println("\n1.Withdraw
\n2.Deposit \n3.Transfer \n4.Check Balance \n5.Transaction History \n6.Exit");

                            System.out.print("\nEnter Your Choice - ");

                            int c = takeIntegerInput(6);

                            switch(c) {

                                case 1:

                                    b.withdraw();

                                    break;

                                case 2:

                                    b.deposit();

                                    break;

                                case 3:

                                    b.transfer();

```

```

        break;

        case 4:

            b.checkBalance();

            break;

        case 5:

            b.transHistory();

            break;

        case 6:

            isFinished = true;

            break;

    }

    }

    }

    }

    }

    else {

        System.exit(0);

    }

}

else {

    System.exit(0);

}

}

}

```