JAVA LAB PROGRAM

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1. Write a Java program that checks the balance, credit limit and debit limit of the customer to withdraw the amount from his/her account.

If the availability of the balance is below 3000, the program should raise an low balance exception and prints a low balance message.
If the customer is crossing his credit or debit limit , the program should raise an limit exceeds exception and prints a limit exceeds message.

Program

```java
import java.util.Scanner;
class MyException extends Exception{
    String s1;
    MyException(String s){
        s1 = s;
    }
    public String toString(){
        return s1;
    }
}
public class Customer{
    public static void main(String... args){
        Scanner sc = new Scanner(System.in);
        int acc[] = new int[100];
        String name[] = new String[100];
        int bal[] = new int[100];
        int i = 0;
        while(true){
            System.out.print("1. Register\n2. Balance\n3.
Credit amount\n4. Debit amount\n5.Exit\nEnter choice: ");
            int n = sc.nextInt();
            if(n == 1){
                System.out.print("Enter name: ");
                name[i] = sc.next();
                System.out.print("Enter Account number: ");
                acc[i] = sc.nextInt();
                System.out.print("Enter initial amount: ");
                bal[i] = sc.nextInt();
                i++;
            }
            else if(n == 2){
                System.out.print("Enter Account Number: ");
                int num = sc.nextInt();
```

```java
                    int j = 0;
                    while(true){
                        if(acc[j] == num){
                            if(bal[j] < 3000){
                                try{
                                    MyException obj = new
MyException("Low Balance");
                                    throw obj;
                                }
                                catch(Exception e){
                                    System.out.print(e);
                                }
                                break ;
                            }
                            else{
                                System.out.print("Balance: "
+ bal[j]);
                                break ;
                            }
                        }
                        else{
                            j++;
                        }
                    }
                    System.out.print("\n");
                }
                else if(n == 3){
                    System.out.print("Enter Account Number: ");
                    int num = sc.nextInt();
                    int j = 0;
                    while(true){
                        if(acc[j] == num){
                            System.out.print("Enter amount:
");
                            int amt = sc.nextInt();
                            if(amt > 5000){
                                try{
                                    MyException obj = new
MyException("Credit amount exceeded");
                                    throw obj;
                                }
                                catch(Exception e){
                                    System.out.print(e);
                                }
                                break ;
                            }
                            else{
```

```java
                                bal[j] += amt;
                                break ;
                        }
                }
                else{
                        j++;
                }
        }
        System.out.print("\n");
}
else if(n == 4){
        System.out.print("Enter Account Number: ");
        int num = sc.nextInt();
        int j = 0;
        while(true){
                if(acc[j] == num){
                        System.out.print("Enter amount: ");
                        int amt = sc.nextInt();
                        if(amt > 1000){
                                try{
                                        MyException obj = new
MyException("Debit amount exceeded");
                                        throw obj;
                                }
                                catch(Exception e){
                                        System.out.print(e);
                                }
                                break ;
                        }
                        else{
                                bal[j] -= amt;
                                break;
                        }
                }
                else{
                        j++;
                }
        }
        System.out.print("\n");
}
else if(n == 5){
        break;
}
        }
    }
}
```

Output

```
C:\Windows\System32\cmd.exe

D:\Semester 5\Java Programming\Lab 10-13>javac Customer.java

D:\Semester 5\Java Programming\Lab 10-13>java Customer
1. Register
2. Balance
3. Credit amount
4. Debit amount
5.Exit
Enter choice: 1
Enter name: python
Enter Account number: 33
Enter initial amount: 5000
1. Register
2. Balance
3. Credit amount
4. Debit amount
5.Exit
Enter choice: 2
Enter Account Number: 33
Balance: 5000
1. Register
2. Balance
3. Credit amount
4. Debit amount
5.Exit
Enter choice: 3
Enter Account Number: 33
Enter amount: 4000

1. Register
2. Balance
3. Credit amount
4. Debit amount
5.Exit
Enter choice: 3
Enter Account Number: 33
Enter amount: 6000
Credit amount exceeded
1. Register
2. Balance
3. Credit amount
4. Debit amount
```

```
C:\Windows\System32\cmd.exe
4. Debit amount
5.Exit
Enter choice: 4
Enter Account Number: 33
Enter amount: 4000
Debit amount exceeded
1. Register
2. Balance
3. Credit amount
4. Debit amount
5.Exit
Enter choice: 2
Enter Account Number: 33
Balance: 9000
1. Register
2. Balance
3. Credit amount
4. Debit amount
5.Exit
Enter choice: 5

D:\Semester 5\Java Programming\Lab 10-13>
```

2. For a library application, write a java program that raises an exception whenever the lapsed renewal day and fine amount exceeds a limit.

Program

```java
import java.util.Scanner;
class Exc extends Exception{
    String s1;
    Exc (String s){
        s1 = s;
    }
    public String toString(){
        return s1;
    }
}
public class Library{
    public static void main(String... args){
        Scanner sc = new Scanner(System.in);
        while(true){
            System.out.print("1. Renewal\n2. Fine Amount\n3. Exit\nEnter choice: ");
            int n = sc.nextInt();
```

```java
                if(n == 1){
                    System.out.print("Enter the current date: ");
                    int date = sc.nextInt();
                    if((14 - date) < 0){
                        try{
                            Exc obj = new Exc("Renewal date Exceeded");
                            throw obj;
                        }
                        catch(Exception e){
                            System.out.print(e);
                        }
                        System.out.print("\n");
                    }
                    else{
                        System.out.print("You\'ve " + String.valueOf(14 - date) + " days left.");
                        System.out.print("\n");
                    }
                }
                else if(n == 2){
                    System.out.print("Enter the current date: ");
                    int date = sc.nextInt();
                    if((14 - date) < 0){
                        int fine = (date - 14) * 4;
                        if (fine > 10){
                            try{
                                Exc obj = new Exc("Fine amount Exceeded");
                                throw obj;
                            }
                            catch(Exception e){
                                System.out.print(e);
                            }
                            System.out.print("\n");
                        }
                    }
                    else{
                        System.out.print("You\'ve " + String.valueOf((14 - date)*4) + " fine amount to be paid.");
                        System.out.print("\n");
                    }
                }
                else if(n == 3){
                    break;
```

```
                    }
                }
            }
        }
```

Output

```
D:\Semester 5\Java Programming\Lab 10-13>javac Library.java

D:\Semester 5\Java Programming\Lab 10-13>java Library
1. Renewal
2. Fine Amount
3. Exit
Enter choice: 1
Enter the current date: 16
Renewal date Exceeded
1. Renewal
2. Fine Amount
3. Exit
Enter choice: 1
Enter the current date: 4
You've 10 days left.
1. Renewal
2. Fine Amount
3. Exit
Enter choice: 2
Enter the current date: 16
1. Renewal
2. Fine Amount
3. Exit
Enter choice: 2
Enter the current date: 20
Fine amount Exceeded
1. Renewal
2. Fine Amount
3. Exit
Enter choice: 3

D:\Semester 5\Java Programming\Lab 10-13>
```