

Name: Muskan Pathak

Std Id: 20712179

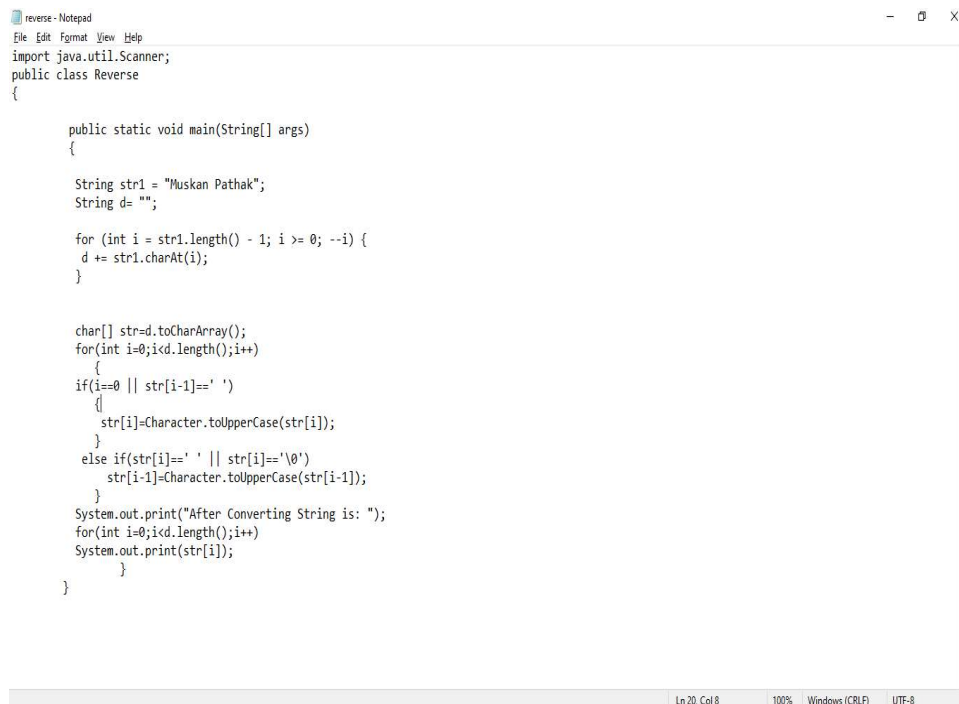
Course: MCA (2C)

Subject: Java Programming

Campus: Dehradun GEHU

Ques1: Write a Java Program which, prints the elements of a string in such a way that the first and last element of the string are printed in Upper case and the intermediate elements are printed in reverse order. (do not use inbuilt function for reverse)

Code:

A screenshot of a Notepad window titled 'reverse - Notepad'. The window contains a Java program. The code imports java.util.Scanner, defines a public class Reverse, and includes a main method. In the main method, a string 'Muskan Pathak' is assigned to 'str1' and an empty string to 'd'. A loop iterates from the end of 'str1' to the beginning, appending each character to 'd'. Then, 'str' is assigned the value of 'd'. Another loop iterates through 'str', converting the first and last characters to uppercase using Character.toUpperCase() and printing them. Finally, the middle characters of 'str' are printed. The status bar at the bottom shows 'Ln 20, Col 8', '100%', 'Windows (CRLF)', and 'UTF-8'.

```
reverse - Notepad
File Edit Format View Help
import java.util.Scanner;
public class Reverse
{
    public static void main(String[] args)
    {
        String str1 = "Muskan Pathak";
        String d = "";

        for (int i = str1.length() - 1; i >= 0; --i) {
            d += str1.charAt(i);
        }

        char[] str=d.toCharArray();
        for(int i=0;i<d.length();i++)
        {
            if(i==0 || str[i-1]==' ')
            {
                str[i]=Character.toUpperCase(str[i]);
            }
            else if(str[i]==' ' || str[i]=='\0')
            {
                str[i-1]=Character.toUpperCase(str[i-1]);
            }
        }
        System.out.print("After Converting String is: ");
        for(int i=0;i<d.length();i++)
        {
            System.out.print(str[i]);
        }
    }
}
```

Ln 20, Col 8 100% Windows (CRLF) UTF-8

Output:

```
Command Prompt
Microsoft Windows [Version 10.0.19042.1052]
(c) Microsoft Corporation. All rights reserved.

C:\Users\hp>cd desktop
C:\Users\hp\Desktop>cd java
C:\Users\hp\Desktop\java>java Reverse.java
After Converting String is: KahtaP NaksuM
C:\Users\hp\Desktop\java>
```

Ques2: Write a Java Program that has a Class Which Creates Account, perform Deposit Money and Tries to WithDraw more Money Which Generates a LessBalanceException. Create BankAccount with 500 Rs Minimum Balance, Deposit Amount, Withdraw Amount and Also Throws LessBalanceException. Class LessBalanceException returns the Statement that Says WithDraw Amount(_Rs) is Not Valid.

Code:

```
AccountDemo - Notepad
File Edit Format View Help
import java.io.*;
import java.lang.*;
class LessBalanceException extends Exception
{
    LessBalanceException(double amt)
    {
        System.out.println("Withdrawing "+amt+" is invlaid");
    }
}
class Account
{
    static int count=0;
    int accno;
    double bal;
    String name;
    Account(double bal,String n,int accno)
    {
        System.out.println("\nNew Account opened....!!");
        this.bal=bal;
        count++;
        System.out.println("Account Holder Name : " + n);
        name=n;
        System.out.println("Your Account Number is : "+accno);
        this.accno=accno;
        System.out.println("Total number of accounts : "+count);
    }
    void deposit(double amt)
    {
        System.out.println("Availabe Balance : "+bal);
        bal=bal+amt;
        System.out.println("Rs. : "+amt+" /- Created");
        System.out.println("Balance : "+bal);
    }
    void withdraw(double amt) throws LessBalanceException
    {
        System.out.println("\nAvailabe Balance : "+bal);
        bal=bal-amt;
        if(bal<500)
        {
            bal+=amt;
            throw new LessBalanceException(amt);
        }
        System.out.println("Rs. : "+amt+" /-Debited");
        System.out.println("Balacne : "+bal);
    }
    void balance()
    {
        System.out.println("\n*****Customer information*****");
        System.out.println("=====");
        System.out.println("Customer Name : "+name);
        System.out.println("Account Number : "+accno);
        System.out.println("Balance : "+bal);
    }
}
class AccountDemo
{
    static int i=0;
    public static void main(String argv[]) throws IOException
    {
        Account ob[]=new Account[10];
        BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
        double amt;
        String name;
        int ch,accno,k;
        boolean t=false;
        while(true)
        {
            System.out.println("\n*** Bank Transaction ***");
            System.out.println("1.Open new Account\n2.Deposit");
        }
    }
}
```

```
AccountDemo - Notepad
File Edit Format View Help
System.out.println("3.Withdraw\n4.Balance\n5.Exit");
System.out.print("Enter your choice : ");
ch=Integer.parseInt(br.readLine());
switch(ch)
{
case 1:
System.out.println("Opening New Account : ");
System.out.print("Enter your name : ");
name=br.readLine();
System.out.print("\nEnter Account Number : ");
accno=Integer.parseInt(br.readLine());
System.out.print("\nEnter initial amount(to be >=500) : ");
amt=Double.parseDouble(br.readLine());
if(amt<500)
System.out.println("You cannot create an account with less than Rs.500/-");
else
{
ob[i]=new Account(amt,name,accno);
i++;
}
break;

case 2:
System.out.print("\nEnter Account number : ");
accno=Integer.parseInt(br.readLine());
for(k=0;k<i;k++)
if(accno==ob[k].accno)
{
t=true;
break;
}

if(t)
{
System.out.print("\nEnter the Amount for Deposit : ");
```

```
AccountDemo - Notepad
File Edit Format View Help
System.out.print("\nEnter the Amount for Deposit : ");|
amt=Double.parseDouble(br.readLine());
ob[k].deposit(amt);
}
else
System.out.println("Invalid Account Number....!!!");
t=false;
break;

case 3:
System.out.print("\nEnter Account number : ");
accno=Integer.parseInt(br.readLine());
for(k=0;k<i;k++)
if(accno==ob[k].accno)
{
t=true;
break;
}

if(t)
{
System.out.print("\nEnter the Amount for Withdraw : ");
amt=Double.parseDouble(br.readLine());
try
{
ob[k].withdraw(amt);
}
catch(LessBalanceException e)
{}
}
else
System.out.println("Invalid Account Number....!!!");
t=false;
break;
```

```
AccountDemo - Notepad
File Edit Format View Help
    catch(LessBalanceException e)
    {}
    }
    else
    System.out.println("Invalid Account Number...!!!");
    t=false;
    break;

    case 4:
    System.out.print("\nEnter Account number : ");
    accno=Integer.parseInt(br.readLine());
    for(k=0;k<i;k++)
    if(accno==ob[k].accno)
    {
        t=true;
        break;
    }

    if(t)
    {
        //System.out.println(accno +" asdfsdf " +ob[k].accno);
        ob[k].balance();
    }
    else
    System.out.println("Invalid Account Number...!!!");
    t=false;
    break;

    case 5:
    System.exit(1);
    default: System.out.println("Invalid Choice !!!");
    }
}
}
```

Output:

```
Command Prompt
Microsoft Windows [Version 10.0.19042.1052]
(c) Microsoft Corporation. All rights reserved.

C:\Users\hvp>cd desktop
C:\Users\hvp\Desktop>cd java
C:\Users\hvp\Desktop\java>java AccountDemo.java
error: can't find main(String[]) method in class: LessBalanceException
C:\Users\hvp\Desktop\java>javac AccountDemo.java
C:\Users\hvp\Desktop\java>java AccountDemo

*** Bank Transaction ***
1.Open new Account
2.Deposit
3.Withdraw
4.Balance
5.Exit
Enter your choice : 1
Opening New Account :
Enter your name : Muskan Pathak
Enter Account Number : 7777
Enter initial amount(to be >=500) : 500

New Account opened....!!
Account Holder Name : Muskan Pathak
Your Account Number is : 7777
Total number of accounts : 1

*** Bank Transaction ***
1.Open new Account
2.Deposit
3.Withdraw
4.Balance
5.Exit
Enter your choice : 2
Enter Account number : 7777
Enter the Amount for Deposit : 200
Availabe Balance : 500.0
Rs. : 200.0 /- Created
```

```
Command Prompt
*** Bank Transaction ***
1.Open new Account
2.deposit
3.Withdraw
4.Balance
5.Exit
Enter your choice : 3
Enter Account number : 300
Invalid Account Number.....!!

*** Bank Transaction ***
1.Open new Account
2.deposit
3.Withdraw
4.Balance
5.Exit
Enter your choice : 4
Enter Account number : 7777

*****Customer Information*****
Customer Name : Muskan Pathak
Account Number : 7777
Balance : 700.0

*** Bank Transaction ***
1.Open new Account
2.deposit
3.Withdraw
4.Balance
5.Exit
Enter your choice : 5

C:\Users\hp\Desktop\java>
```