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1. 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-:

```
import java.util.Scanner;
public class Reverse
{

    public static void main(String[] args)
    {

        String str1 = "gaurav";
        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]);
        }
}
```

```
C:\Users\Lenovo\Desktop>javac Reverse.java  
C:\Users\Lenovo\Desktop>java Reverse  
After Converting String is: VaruaG  
C:\Users\Lenovo\Desktop>
```

2. 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:-

```
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-=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");
    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 : ");
                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;

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 !!!");
}
}
}
}
}

```

```
Command Prompt - java AccountDemo
Microsoft Windows [Version 10.0.19042.985]
(c) Microsoft Corporation. All rights reserved.

C:\Users\user>cd c:/javatestprograms
c:\javatestprograms>javac AccountDemo.java
c:\javatestprograms>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 : abcd

Enter Account Number : 1234

Enter initial amount(to be >=500) : 700

New Account opened....!!
Account Holder Name : abcd
Your Account Number is : 1234
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 : 1234

Enter the Amount for Deposit : 100
Availabe Balance : 700.0
Rs. : 100.0 /- Created
Balance : 800.0

***** Bank Transaction *****
```

```
Command Prompt - java AccountDemo

New Account opened....!!
Account Holder Name : abcd
Your Account Number is : 1234
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 : 1234

Enter the Amount for Deposit : 100
Availabe Balance : 700.0
Rs. : 100.0 /- Created
Balance : 800.0

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

Enter Account number : 400
Invalid Account Number....!!

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

Enter Account number :
```