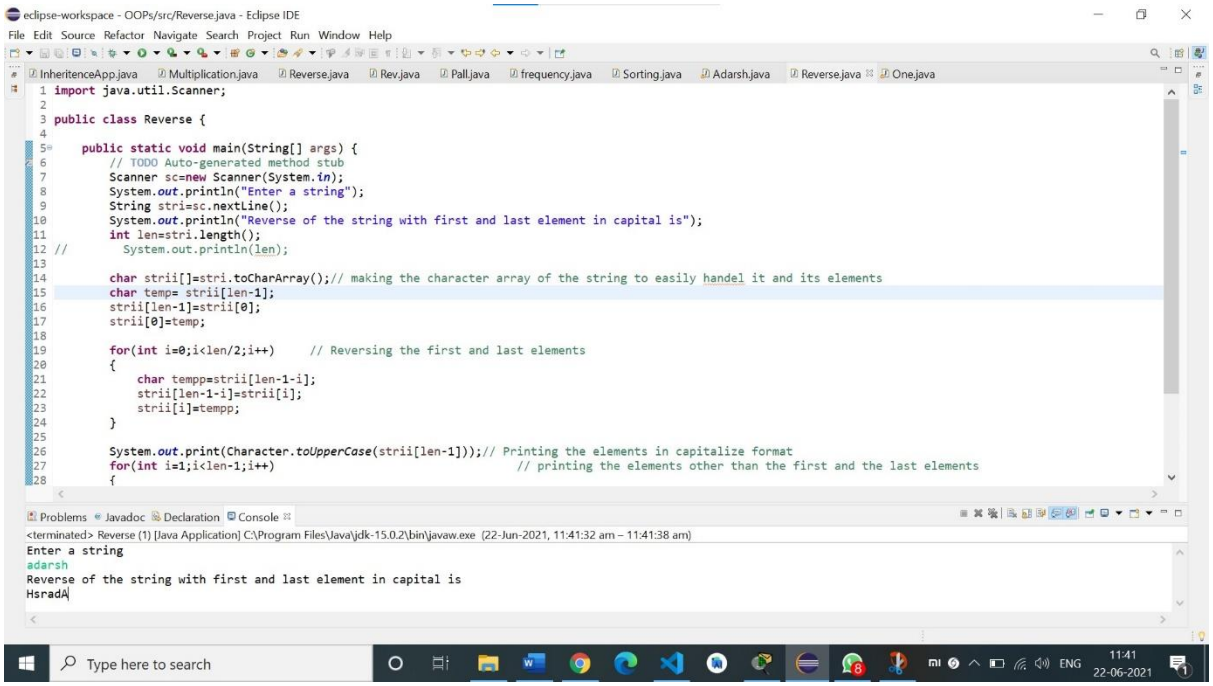
Lab Practical

Java

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)

```
import java.util.Scanner;

public class Reverse {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		Scanner sc=new Scanner(System.in);
		System.out.println("Enter a string");
		String stri=sc.nextLine();
		System.out.println("Reverse of the string with first and last element in capital is");
		int len=stri.length();
//		System.out.println(len);

	 char strii[]=stri.toCharArray();// making the character array of the string to easily handel it and its elements
		char temp= strii[len-1];
		strii[len-1]=strii[0];
		strii[0]=temp;

	 for(int i=0;i<len/2;i++)     // Reversing the first and last elements
	 {
	     char tempp=strii[len-1-i];
	     strii[len-1-i]=strii[i];
	     strii[i]=tempp;
	 }

	 System.out.print(Character.toUpperCase(strii[len-1]));// Printing the elements in capitalize format
	 for(int i=1;i<len-1;i++)                                    // printing the elements other than the first and the last elements
	 {
	     System.out.print(strii[i]);
	 }
	 System.out.print(Character.toUpperCase(strii[0]));// printing he elements in capitalize format
		sc.close();
	}

}
```



Output 1:

```
Enter a string
adarsh
Reverse of the string with first and last element in capital is
HsradA
```

Output 2:

```
Enter a string
hello mmy name is adarsh rana
Reverse of the string with first and last element in capital is
Anar hsrada si eman ymm olleH
```

2. Write a Java Program that has a Class Which Creates Account, perform Deposite Money and Tries to WithDraw more Money Which Generates a LessBalanceException.

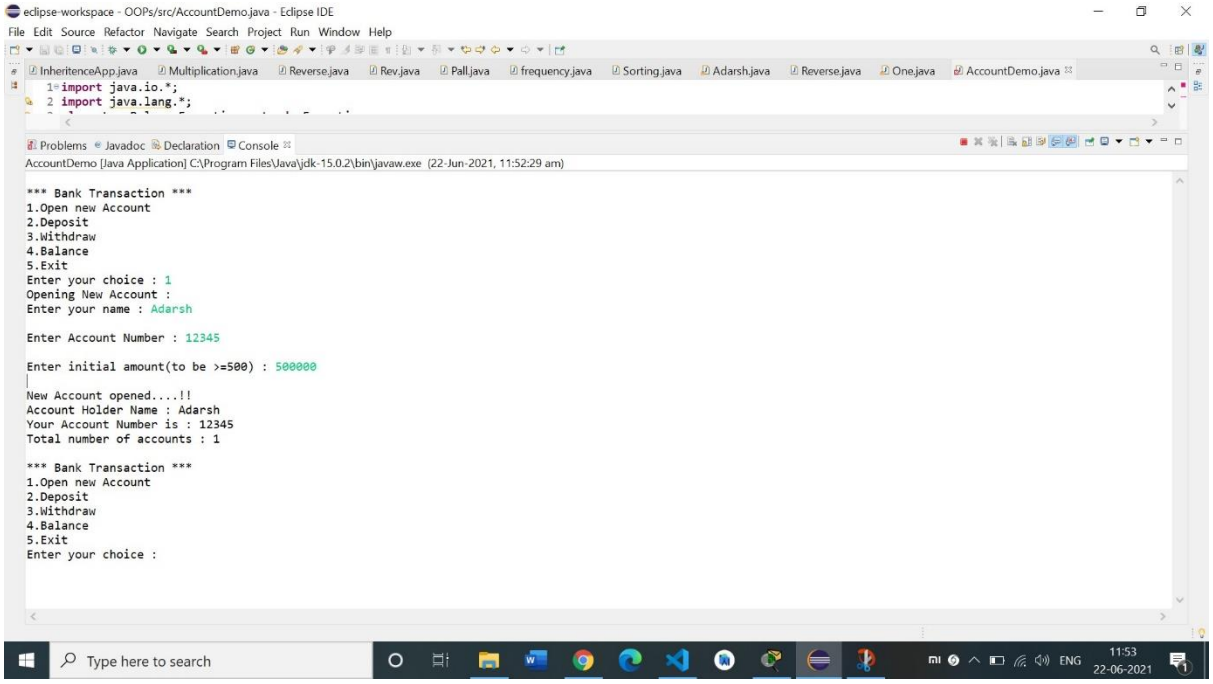
Create BankAccount with 500 Rs Minimum Balance, Deposit Amount, Withdraw Amount and Also Throws LessBalanceException.

Class LessBalanceException returns the Statement that Says WithDraw Amount(_Rs) is Not Valid.

```
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 !!!");
    }
   }
  }
 }
```


eclipse-workspace - OOPs/src/AccountDemo.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
InheritenceApp.java Multiplication.java Reverse.java Rev.java Pall.java frequency.java Sorting.java Adarsh.java Reverse.java One.java AccountDemo.java
1 import java.io.*;
2 import java.lang.*;
Problems Javadoc Declaration Console
AccountDemo [Java Application] C:\Program Files\Java\jdk-15.0.2\bin\javaw.exe (22-Jun-2021, 11:52:29 am)
*** Bank Transaction ***
1.Open new Account
2.Deposit
3.Withdraw
4.Balance
5.Exit
Enter your choice : 1
Opening New Account :
Enter your name : Adarsh
Enter Account Number : 12345
Enter initial amount(to be >=500) : 500000
New Account opened....!!
Account Holder Name : Adarsh
Your Account Number is : 12345
Total number of accounts : 1
*** Bank Transaction ***
1.Open new Account
2.Deposit
3.Withdraw
4.Balance
5.Exit
Enter your choice :
Type here to search
ENG
11:53
22-06-2021