Name-Nikhil Joshi   **Id-**20711105   **Course-**MCA   **Semester-**2   **Campus-**Haldwani
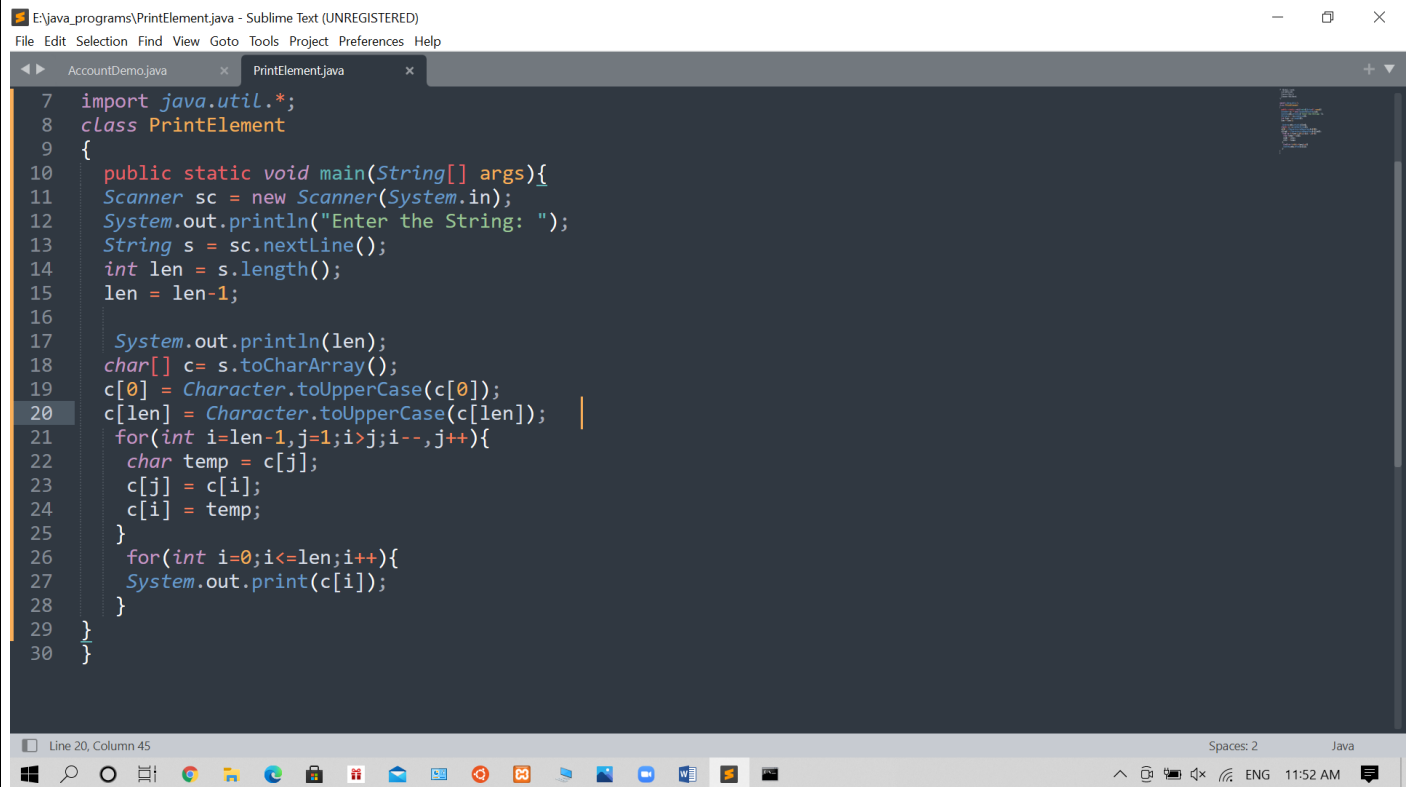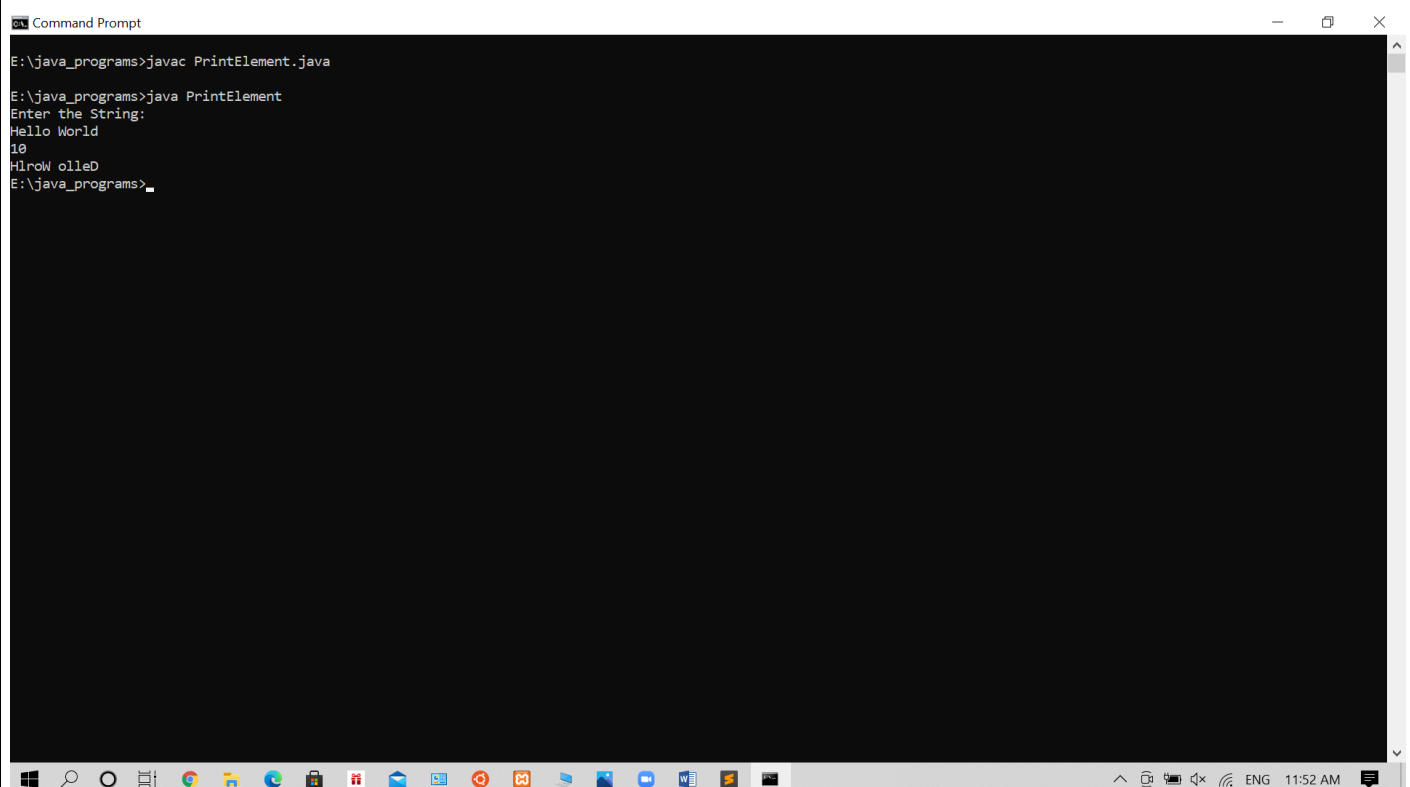
Mid Term Practical Java

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).

Source Code:

```java
import java.util.*;
class PrintElement
{
  public static void main(String[] args){
  Scanner sc = new Scanner(System.in);
  System.out.println("Enter the String: ");
  String s = sc.nextLine();
  int len = s.length();
  len = len-1;

   System.out.println(len);
  char[] c= s.toCharArray();
  c[0] = Character.toUpperCase(c[0]);
  c[len] = Character.toUpperCase(c[len]);
   for(int i=len-1,j=1;i>j;i--,j++){
    char temp = c[j];
    c[j] = c[i];
    c[i] = temp;
   }
    for(int i=0;i<=len;i++){
    System.out.print(c[i]);
   }
  }
}
```

Output:

```
E:\java_programs>javac PrintElement.java

E:\java_programs>java PrintElement
Enter the String:
Hello World
10
HlroW olleD
E:\java_programs>
```

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.

Source Code:

```java
/* Nikhil Joshi
   id-20711105
   Course-Mca 2
   Campus-Haldwani
*/
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;
```

```java
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***************");
```

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AccountDemo.java   ×   PrintElement.java   ×

```java
55      System.out.println("========================================");
56      System.out.println("Customer Name : "+name);
57      System.out.println("Account Number : "+accno);
58      System.out.println("Balance : "+bal);
59    }
60  }
61  class AccountDemo
62  {
63   static int i=0;
64   public static void main(String argv[]) throws IOException
65   {
66    Account ob[]=new Account[10];
67    BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
68    double amt;
69    String name;
70    int ch,accno,k;
71    boolean t=false;
72    while(true)
73    {
74     System.out.println("\n****** Bank Transaction *********");
75     System.out.println("1.Open new Account\n2.Deposit");
76     System.out.println("3.Withdraw\n4.Balance\n5.Exit");
77     System.out.print("Enter your choice : ");
78     ch=Integer.parseInt(br.readLine());
79     switch(ch)
80     {
81      case 1:
```

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```java
82       System.out.println("Opening New Account : ");
83       System.out.print("Enter your name : ");
84       name=br.readLine();
85       System.out.print("\nEnter Account Number : ");
86       accno=Integer.parseInt(br.readLine());
87       System.out.print("\nEnter initial amount(to be >=500) : ");
88       amt=Double.parseDouble(br.readLine());
89       if(amt<500)
90       System.out.println("You cannot create an account with less than Rs.500/-");
91       else
92       {
93        ob[i]=new Account(amt,name,accno);
94        i++;
95       }
96       break;
97
98      case 2:
99       System.out.print("\nEnter Account number : ");
100      accno=Integer.parseInt(br.readLine());
101      for(k=0;k<i;k++)
102      if(accno==ob[k].accno)
103      {
104       t=true;
105       break;
106      }
107
108      if(t)
```

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AccountDemo.java   PrintElement.java

```java
109         {
110          System.out.print("\nEnter the Amount for Deposit : ");
111          amt=Double.parseDouble(br.readLine());
112          ob[k].deposit(amt);
113         }
114         else
115         System.out.println("Invalid Account Number...!!!");
116         t=false;
117         break;
118
119         case 3:
120         System.out.print("\nEnter Account number : ");
121         accno=Integer.parseInt(br.readLine());
122         for(k=0;k<i;k++)
123         if(accno==ob[k].accno)
124         {
125          t=true;
126          break;
127         }
128
129         if(t)
130         {
131          System.out.print("\nEnter the Amount for Withdraw : ");
132          amt=Double.parseDouble(br.readLine());
133          try
134          {
135           ob[k].withdraw(amt);
```

```java
136          }
137          catch(LessBalanceException e)
138          {}
139         }
140         else
141         System.out.println("Invalid Account Number...!!!");
142         t=false;
143         break;
144
145         case 4:
146         System.out.print("\nEnter Account number : ");
147         accno=Integer.parseInt(br.readLine());
148         for(k=0;k<i;k++)
149         if(accno==ob[k].accno)
150         {
151          t=true;
152          break;
153         }
154
155         if(t)
156         {
157          //System.out.println(accno +" asdfsdf " +ob[k].accno);
158          ob[k].balance();
159         }
160         else
161         System.out.println("Invalid Account Number...!!!");
162         t=false;
```

```java
163        break;
164
165      case 5:
166      System.exit(1);
167      default: System.out.println("Invalid Choice !!!");
168      }
169    }
170  }
171 }
```

Output:

```
E:\java_programs>javac AccountDemo.java

E:\java_programs>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 : Nikhil Joshi

Enter Account Number : 1012201410

Enter initial amount(to be >=500) : 1000

New Account opened....!!
Account Holder Name : Nikhil Joshi
Your Account Number is : 1012201410
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 : 2000
Invalid Account Number...!!!

******* Bank Transaction *********
1.Open new Account
2.Deposit
3.Withdraw
4.Balance
5.Exit
```

```
Command Prompt - java AccountDemo                                    —  □  ×
4.Balance
5.Exit
Enter your choice : 2

Enter Account number : 1012201410

Enter the Amount for Deposit : 2000
Availabe Balance : 1000.0
Rs. : 2000.0 /- Created
Balance : 3000.0

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

Enter Account number : 1012201410

Enter the Amount for Withdraw : 4000

Availabe Balance : 3000.0
Withdrawing 4000.0 is invlaid

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