Practical No.2

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Class :- T.Y.BSC(Computer Science)
Subject :- Object Oriented Programming Using Java-1
Div:- A Batch:- B
Roll No :- 32
Practical Name:-Arrays of Objects and Classes
Performance Date:- / / Subbmission Date:- / /

Set A)
A) Create an employee class(id,name,deptname,salary). Define a default and parameterized constructor. Use 'this' keyword to initialize instance variables. Keep a count of objects created. Create objects using parameterized constructor and display the object count after each object is created.(Use static member and method). Also display the contents of each object.
Program:

```
import java.util.Scanner;
public class Employe
{
int id;
String name;
String deptname;
float salary;
static int numberofobjects=0;
Employe()
{
        id=0;
        name="";
        deptname="";
        salary=0;
}
Employe(int id,String name,String deptname,float salary)
{
        this.id=id;
        this.name=name;
        this.deptname=deptname;
        this.salary=salary;
        numberofobjects++;
}
public void display()
{
        System.out.print("Employe id:"+id+"\n");
        System.out.print("Employe name:"+name+"\n");
        System.out.print("Employe department name:"+deptname+"\n");
        System.out.print("Employe salary:"+salary+"\n");
}
public static void main(String[] args)
{
        int n=0;
        Scanner sc=new Scanner(System.in);
        System.out.println("how many employe you want to enter:");
        n=sc.nextInt();
        Employe[] ob=new Employe[n];
        for(int i=0;i<n;i++)
        {
                sc=new Scanner(System.in);
                System.out.println("enter id of employe:"+(i+1)+"\n");
                int id=sc.nextInt();
```

```
                System.out.println("enter name of employe:"+(i+1)+"\n");
                sc.nextLine();
                String name=sc.nextLine();
                System.out.println("enter dpt name of employe:"+(i+1)+"\n");
                String deptname=sc.nextLine();
                System.out.println("enter the salary of employe:"+(i+1)+"\n");
                float salary=sc.nextFloat();
                ob[i]=new Employe(id,name,deptname,salary);
                System.out.println("\nnumber of object:"+numberofobjects+"\n");
        }
for(int i=0;i<n;i++)
{
        ob[i].display();
}
}
}
```

Output:

```
how many employe you want to enter:
2
enter id of employe:1
1
enter name of employe:1
Rutuja
enter dpt name of employe:1
engineering
enter the salary of employe:1
50000
number of object:1
enter id of employe:2
2
enter name of employe:2
sakshi
enter dpt name of employe:2
Bca
enter the salary of employe:2
60000
number of object:2

Employe id:1
Employe name:Rutuja
Employe department name:engineering
Employe salary:50000.0
Employe id:2
Employe name:sakshi
Employe department name:Bca
Employe salary:60000.0
```

C) Write a java program to accept 5 numbers using command line arguments sort and display them.

```
import java.io.*;
public class CommandLine
{
public static void main(String[]args)throws IOException
{

int[]arr=new int[5];
for(int i=0;i<5;i++)
{
arr[i]=Integer.parseInt(args[i]);
}
int temp=0;
```

```
for(int i=0;i<5;i++)
{
for(int j= i+1;j<5;j++)
{
if(arr[i]>arr[j])
{
temp=arr[i];
arr[i]=arr[j];
arr[j]=temp;
}
}
}
System.out.println();
System.out.println("Elements of array sorted ascending order:");
for(int i=0;i<5;i++)
{
System.out.print(arr[i]+" ");
}
}
}
```

Output:

```
javac CommandLine.java
samarth@samarth-OptiPlex-3040:~$ java CommandLine 3 1 4 2 0

Elements of array sorted ascending order:
0 1 2 3 4
```

D) Write a java program that take input as a person name in the format of first, middle and last name and then print it in the form last, first and middle name, where in the middle name first character is capital letter.

Program:

```
import java.util.*;
class personname
{
String fname,mname,lname;
int len;
void accept()
{
System.out.println("Enter first name:");
Scanner s=new Scanner(System.in);
fname=s.next();
System.out.println("Enter middle name:");
mname=s.next();
System.out.println("Enter last name:");
lname=s.next();
len=mname.length();
String f=mname.substring(0,1);
String l=mname.substring(1,len);
f=f.toUpperCase();
mname=f+l;
}
void display()
{
System.out.println("last name:"+lname);
System.out.println("first name:"+fname);
System.out.println("middle name:"+mname);
}
public static void main(String a[])
{
personname p=new personname();
```

```
p.accept();
p.display();
}
}
```
Output:
```
Enter first name:
Tanuja
Enter middle name:
Subhash
Enter last name:
Jadhav
last name:Jadhav
first name:Tanuja
middle name:Subhash
```

Set C

A) Write a package for String operation which has two classes Con and Comp. Con class has to concatenates two strings and comp class compares two strings. Also display proper message on execution.

Program:
```
import stringoperation.Con;
import stringoperation.Comp;
public class Main
{
public static void main(String[]args){

String str1="hello";
String str2="world";
Con con =new Con();
String concatenatedString=con.concatenate(str1,str2);
System.out.println("Concatenated String"+concanatedString);
Comp comp=new Comp();
boolean areEqual=comp.compare(str1,str2);
System.out.println("Are the string equal?"+areEqual);
}
}
```

Con
```
package stringoperations;
public class con{
public static String concatenate(String str1,String str2){
return str1+str2;
}
}
```

Com
```
package stringoperations;
public class comp{
public static String concatenate(String str1,String str2){
return str1.equals (str2);
}
}
```

Output:-
```
Concatenated String::HelloHello
Are the strings equal? True
```
Or
```
Concatenated String::HelloWorld
Are the strings equal? False
```