Java Programming – Phase II

Name: SWETHA S

Roll Number: 202IT247

Date: 25.12.2021

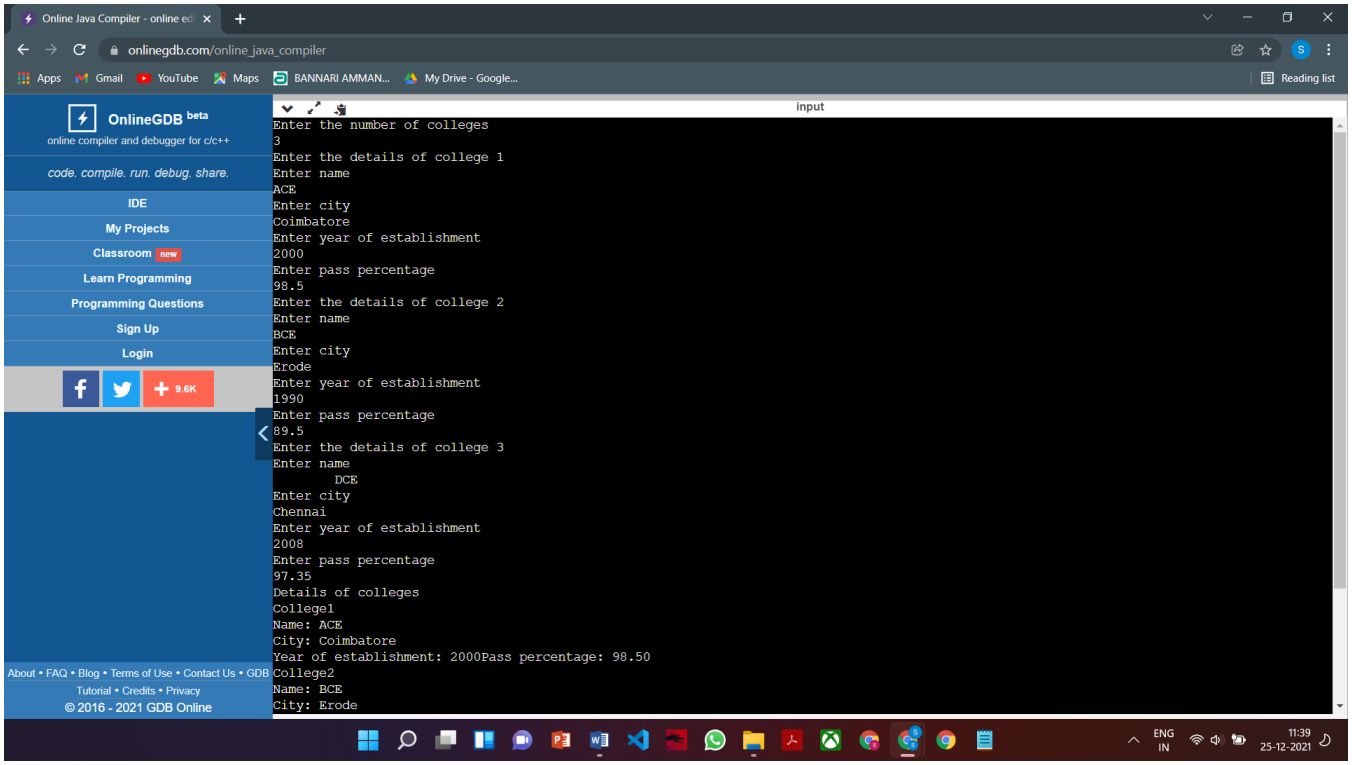
Task 1:

CODE:

```
import java.util.*;
class College{
College(){
Scanner sc=new Scanner(System.in);
System.out.println("Enter the number of colleges");
int n=sc.nextInt();
String[] name=new String[n];
String[] city=new String[n];
int[] establish=new int[n];
float[] pass=new float[n];
for(int i=1;i<=n;i++){
System.out.println("Enter the details of college "+i);
System.out.println("Enter name");
name[i-1]=sc.next();
System.out.println("Enter city");
city[i-1]=sc.next();
System.out.println("Enter year of establishment");
establish[i-1]=sc.nextInt();
System.out.println("Enter pass percentage");
```

```
pass[i-1]=sc.nextFloat();
}
Arrays.sort(name);
System.out.println("Details of colleges");
for(int i=0;i<n;i++){
int h=i+1;
System.out.println("College"+h);
System.out.println("Name: "+name[i]);
System.out.println("City: "+city[i]);
System.out.print("Year of establishment: "+establish[i]);
System.out.print("Pass percentage: ");
System.out.println(String.format("%.2f",pass[i]));
}
}
}
public class Main
{
public static void main(String[] args) {
Scanner sc=new Scanner(System.in);
College obj=new College();
}
}
```

Output: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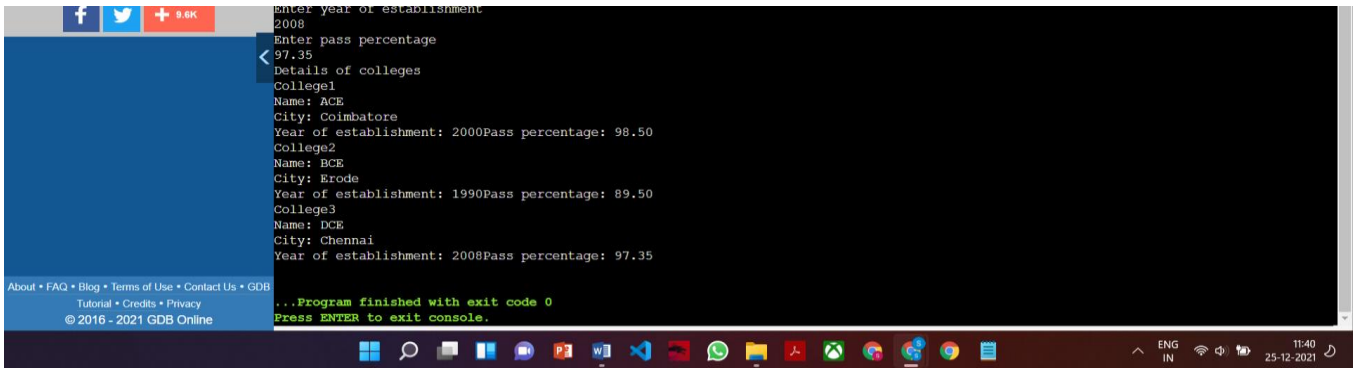
input
Enter the number of colleges
3
Enter the details of college 1
Enter name
ACE
Enter city
Coimbatore
Enter year of establishment
2000
Enter pass percentage
98.5
Enter the details of college 2
Enter name
BCE
Enter city
Erode
Enter year of establishment
1990
Enter pass percentage
89.5
Enter the details of college 3
Enter name
DCE
Enter city
Chennai
Enter year of establishment
2008
Enter pass percentage
97.35
Details of colleges
College1
Name: ACE
City: Coimbatore
Year of establishment: 2000Pass percentage: 98.50
College2
Name: BCE
City: Erode
ENG
IN
11:39
25-12-2021


9.6K
Enter year of establishment
2008
Enter pass percentage
97.35
Details of colleges
College1
Name: ACE
City: Coimbatore
Year of establishment: 2000Pass percentage: 98.50
College2
Name: BCE
City: Erode
Year of establishment: 1990Pass percentage: 89.50
College3
Name: DCE
City: Chennai
Year of establishment: 2008Pass percentage: 97.35
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...Program finished with exit code 0
Press ENTER to exit console.
ENG
IN
11:40
25-12-2021

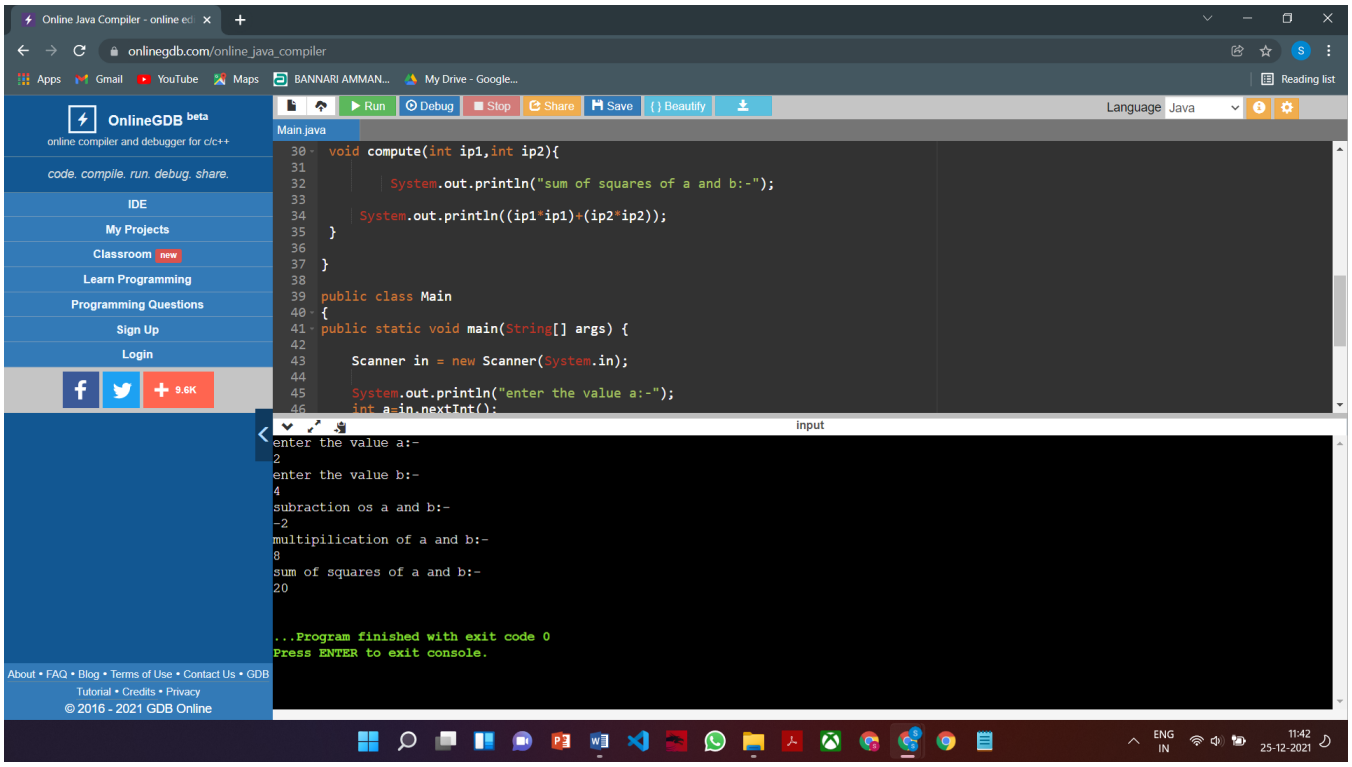
Task 2:

CODE:

```
import java.util.Scanner;

class Sample_class1
{


 void sub(int ip1,int ip2){
    System.out.println("subraction os a and b:-");

    System.out.println(ip1-ip2);
  }
}

class Sample_class2 extends Sample_class1
{
 void mul(int ip1,int ip2) {
        System.out.println("multipilication of a and b:-");

    System.out.println(ip1*ip2);
 }

 void compute(int ip1,int ip2){

         System.out.println("sum of squares of a and b:-");

     System.out.println((ip1*ip1)+(ip2*ip2));
 }

}

public class Main
{
public static void main(String[] args) {

    Scanner in = new Scanner(System.in);

    System.out.println("enter the value a:-");
    int a=in.nextInt();

    System.out.println("enter the value b:-");
        int b=in.nextInt();
```

```
Sample_class2 obj = new Sample_class2();
obj.sub(a,b);
obj.mul(a,b);
obj.compute(a,b);
}
}
```

OUTPUT:

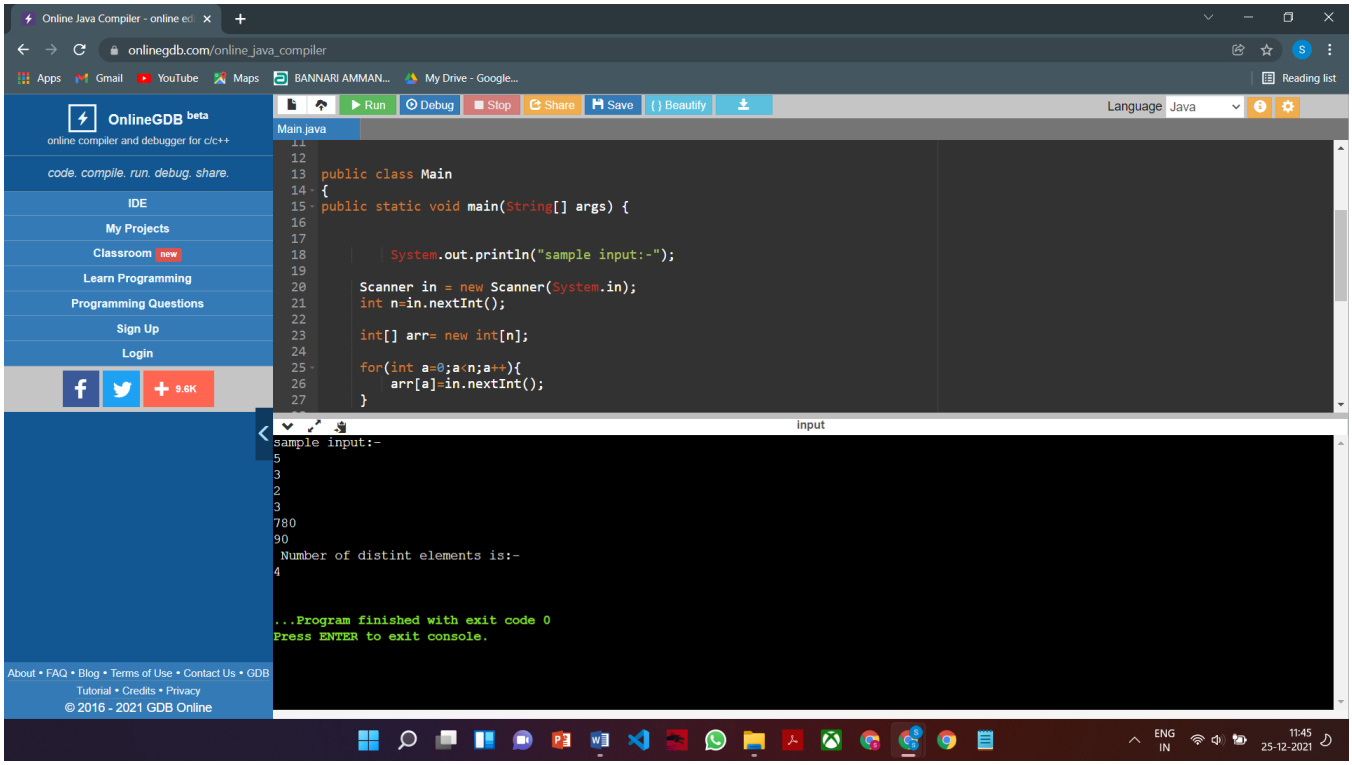


Task 3:

Code:

```
import java.util.Arrays;
import java.util.Scanner;


public class Main
{
public static void main(String[] args) {


        System.out.println("sample input:-");

     Scanner in = new Scanner(System.in);
     int n=in.nextInt();

     int[] arr= new int[n];

     for(int a=0;a<n;a++){
         arr[a]=in.nextInt();
     }

    int l=arr.length;
    int count=1;

    Arrays.sort(arr);

    for(int i=0;i<l-1;i++){
        if(arr[i]!=arr[i+1]){
            count++;
        }
    }

    System.out.println(" Number of distint elements is:-");

System.out.println(count);
}
}
```

OUTPUT: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Login
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Run
Debug
Stop
Share
Save
{ } Beautify
Language Java
Main.java
public class Main
{
public static void main(String[] args) {
System.out.println("sample input:-");
Scanner in = new Scanner(System.in);
int n=in.nextInt();
int[] arr= new int[n];
for(int a=0;a<n;a++){
arr[a]=in.nextInt();
}
input
sample input:-
5
3
2
3
780
90
Number of distint elements is:-
4
...Program finished with exit code 0
Press ENTER to exit console.
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