ASSIGNMENT-java1

Q1. Write a program to replace a substring inside a string with other string ?

```
class Q1{
  public static void main(String[] args){
        String s="Hello how are you?";
        System.out.println(s);
        System.out.println(s.replace("ar","we"));
  }
}
```

Q2. Write a program to find the number of occurrences of the duplicate words in a string and print them ?

```
class Q2{
  public static void main(String[] args) {
     int c=1;
     String s = "betty bought some butter but the Butter was so bitter";
     System.out.println("string initially entered:"+""+s);
     s=s.toLowerCase();
     System.out.println("string changed to lowercase:"+""+s);
     String word[]= s.split(" ");

     for(int i=0;i<word.length;i++)
     {
        c=1;
        for(int j=i+1;j<word.length;j++){
           if(word[i].equals(word[j]))          //we can use ignore case also but we already changed to lowercase
           {   c++;
           word[j]="o";
           }
        }
        if(word[i]!="o"&&c>1)
           System.out.println(word[i]+" : "+c);
     }

  }
}
```

```
shreya@shreya:src $
shreya@shreya:src $
shreya@shreya:src $
shreya@shreya:src $ javac Q2.java
shreya@shreya:src $ java Q2
string initially entered:betty bought some butter but the Butter was so bitter
string changed to lowercase:betty bought some butter but the butter was so bitter
butter : 2
shreya@shreya:src $
```

Q3. Write a program to find the number of occurrences of a character in a string without using loop?

```
import java.util.Scanner;

public class Q3 {
  public static void main(String[] args)
{
    Scanner sc = new Scanner(System.in);
            System.out.println("enter your string");
                String s = sc.nextLine();
                s = s.toLowerCase();
            System.out.println("enter the character you want to check occurence of ");
            String ch1 = sc.next();
            ch1 = ch1.toLowerCase();
            int count = s.length() - s.replace(ch1, "").length();
            System.out.println("the occurrence of character" + ch1 + "is" + count);
 }}
```

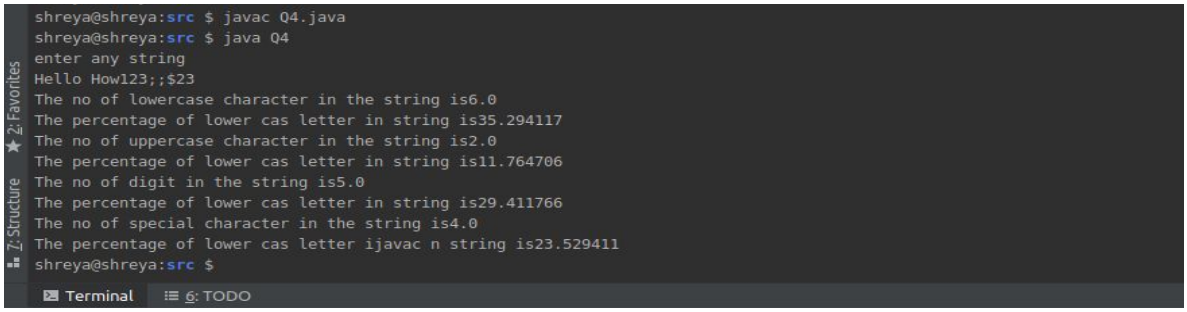
```
shreya@shreya:src $
shreya@shreya:src $
shreya@shreya:src $
shreya@shreya:src $
shreya@shreya:src $
shreya@shreya:src $ javac Q3.java
shreya@shreya:src $ java Q3
enter your string
hello everyone
enter the character you want to check occurence of
e
the occurrence of charactereis4
shreya@shreya:src $
Terminal  6: TODO
```

Q4. Calculate the number & Percentage Of Lowercase Letters,Uppercase Letters, Digits And Other Special Characters In A String

```
import java.util.Scanner;
public class Q4 {
        static float a=0;
        static float b=0;
        static float c=0;
```

```
static float d=0;
public static void main(String[] args) {

Scanner sc=new Scanner(System.in);
System.out.println("enter any string");
String s=sc.nextLine();
char ch[]=new char[s.length()];
for(int i=0;i<s.length();i++)
{
ch[i]=s.charAt(i);
}


for(int i=0;i<s.length();i++)
{
if(ch[i]>='a'&&ch[i]<='z')
{
        a++;
}
else if(ch[i]>='A'&&ch[i]<='Z')
{
        b++;
}
else if(ch[i]>='0'&&ch[i]<='9')
{
        c++;
}
else
{
        d++;
}
}

System.out.println("The no of lowercase character in the string is"+a);
System.out.println("The percentage of lower case letter in string is"+(a/(a+b+c+d)*100));

System.out.println("The no of uppercase character in the string is"+b);
System.out.println("The percentage of upper case letter in string is"+(b/(a+b+c+d)*100));

System.out.println("The no of digit in the string is"+c);
System.out.println("The percentage of digit in string is"+(c/(a+b+c+d)*100));

System.out.println("The no of special character in the string is"+d);
```

```
        System.out.println("The percentage of special character in string is"+(d/(a+b+c+d)*100));

        }
}
```



Q5. Find common elements between two arrays.

```
import java.util.Scanner;
public class Q5 {
        public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("enter the size of array1");
        int  m=sc.nextInt();
        System.out.println("enter the size of array2");
        int  n=sc.nextInt();
        System.out.println("Enter the element in the array1");
        char ch1[]=new char[m];
        char ch2[]=new char[n];
        for(int i=0;i<m;i++)
        {
        ch1[i]=sc.next().charAt(0);
        }

        System.out.println("Enter the element in the array2");
        for(int i=0;i<n;i++)
        {
        ch2[i]=sc.next().charAt(0);
        }

        for(int i=0;i<m;i++)
        {
        for(int j=0;j<n;j++)
        {
                if(ch1[i]==ch2[j])
                {
                System.out.println("common element"+ch1[i]);
```

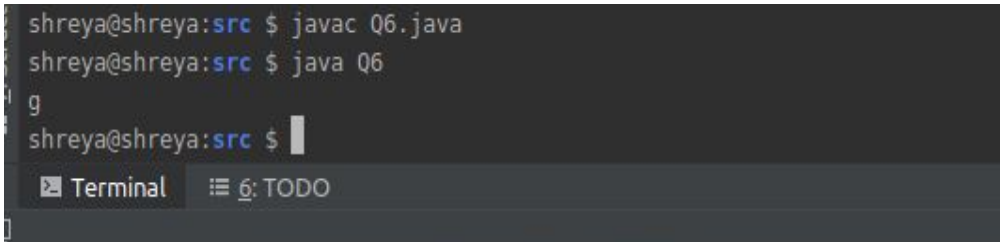
```
                    break;
                    }
            }
            }
            }
```

}

```
shreya@shreya:src $ javac Q5.java
shreya@shreya:src $ java Q5
enter the size of array1
4
enter the size of array2
3
Enter the element in the array1
a
b
c
d
Enter the element in the array2
b
c
a
common elementa
common elementb
common elementc
shreya@shreya:src $
```

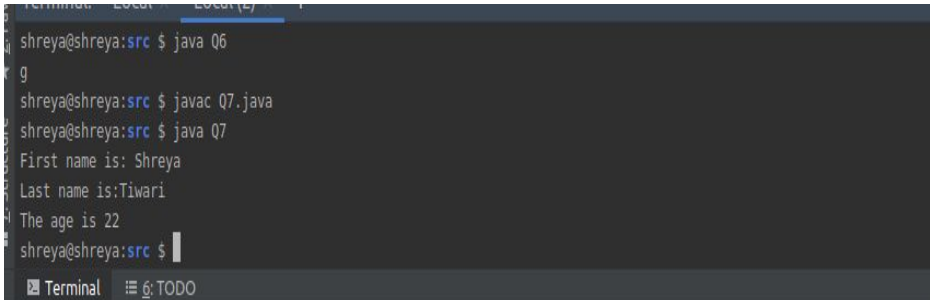
Q6. There is an array with every element repeated twice except one. Find that element

```
public class Q6 {
  public static void main(String[] args) {
     char ch1[]={'a','s','a','b','b','g','s'};
     int n=ch1.length;
     int c=0;
     for(int i=0;i<n;i++)
     {   c=1;
        for(int j=i+1;j<n;j++)
        {
                if(ch1[i]==ch1[j])
                {       c++;
                        ch1[j]='0';
                }

        }
           if(ch1[i]!='0'&& c==1)
           {
              System.out.println(ch1[i]);
           }
     }

     }
  }
```



Q7. Write a program to print your Firstname,LastName & age using static block,static method & static variable respectively

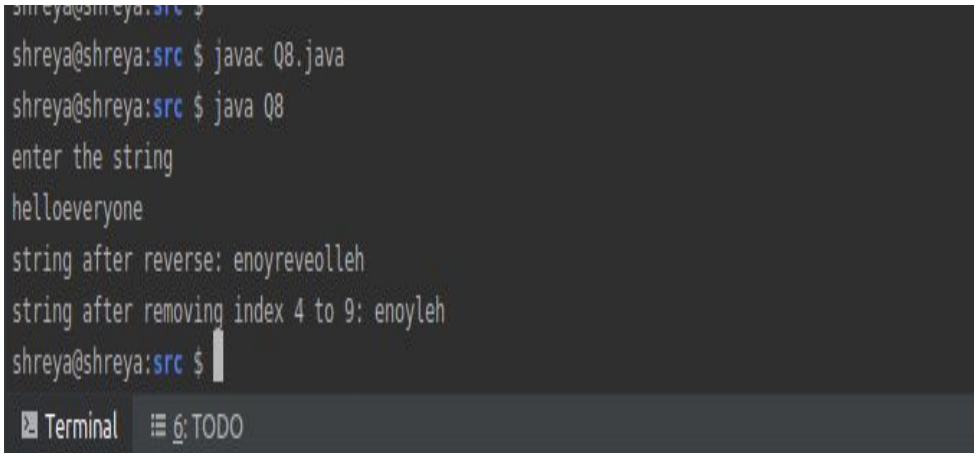
```
public class Q7{
        static int age=22;                              //static variable
        static {                                        //static block
        System.out.println("First name is: Shreya");
        }
        static void Lastname()                          //static method
        {

        System.out.println("Last name is:Tiwari");
        }
        public static void main(String[] args)
        {
        Lastname();
        System.out.println("The age is "+age);
        }

}
```



Q8. Write a program to reverse a string and remove character from index 4 to index 9 from the reversed string using String Buffer

```
import java.util.Scanner;
public class Q8 {
        public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("enter the string");
        StringBuffer s2=new StringBuffer (sc.nextLine());               //using stringbuffer in this
        s2=s2.reverse();
```

```
        System.out.println("string after reverse:"+""+s2);
        s2= s2.delete(4,10);                              //10th index is not included
        System.out.println("string after removing index 4 to 9:"+""+s2);


        }

}
```



Q9.Write a program to display values of enums using a constructor & getPrice() method (Example display house & their prices)

```
public class Q9
{
        public enum Housename{
        H1(10000),H2(200000),H3(40000);
        private int p;
        Housename(int price){
        p=price;
        }
        int getPrice()
        {
        return p;
        }
        }

        public static void main(String[] args) {
        {
        System.out.println("housename : Price");
        System.out.println(Housename.H1+": "+Housename.H1.getPrice()+" Rs");
        System.out.println(Housename.H2+": "+Housename.H2.getPrice()+" Rs");
        System.out.println(Housename.H3+": "+Housename.H3.getPrice()+" Rs");
```

```
        }
        }
}
```

```
shreya@shreya:src $ javac Q9.java
shreya@shreya:src $ java Q9
housename : Price
H1: 10000 Rs
H2: 200000 Rs
H3: 40000 Rs
shreya@shreya:src $
```

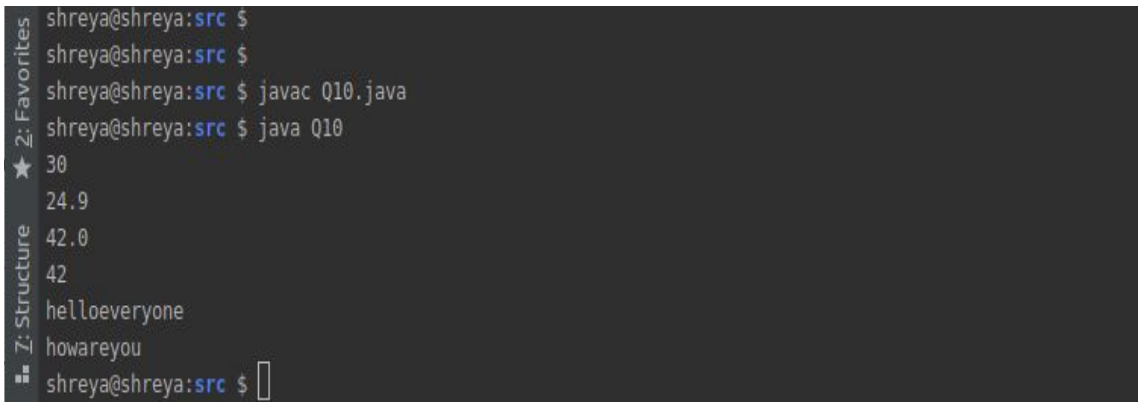
Terminal 6: TODO

Q10.Write a single program for following operation using overloading

A) Adding 2 integer number
B) Adding 2 double
C) multiplying 2 float
D) multiplying 2 int
E) concate 2 string
F) Concate 3 String

```
public class Q10 {
        public int sum(int a,int b)
        {
        return(a+b);
        }

        public double sum(double a,double b)
        {
        return (a+b);
        }
        public float multiply(float a,float b)
        {
        return(a*b);
        }
        public int multiply(int a,int b)
        {
        return(a*b);
        }
        public  String concat(String a,String b)
```

```
        {
        return(a+b);
        }
        public  String concat(String a,String b,String c)
        {
        return(a+b+c);
        }

        public static void main(String[] args) {
        Q10 t= new Q10();
        System.out.println(t.sum(10,20));
        System.out.println(t.sum(10.3,14.6));
        System.out.println(t.multiply(7.0f, 6.0F));
        System.out.println(t.multiply(7,6));
        System.out.println(t.concat("hello","everyone"));
        System.out.println(t.concat("how","are","you"));
        }
}
```



Q11.Create 3 sub class of bank SBI,BOI,ICICI all 4 should have method called getDetails which provide there specific details like rateofinterest etc,print details of every banks

```
class Bank {
        public void getDetails()
        {
        System.out.println("Main");
        }
}
class SBI extends Bank{

        public void getDetails()
         {
```

```
                System.out.println("SBI BANK");
                System.out.println("The rate of interest:"+20+"per");
                System.out.println("no of employees:"+2000);
                System.out.println("no of branches:"+700);

        }


}
class BOI extends Bank{

        public void getDetails()
        {
                System.out.println("BOI BANK");
                System.out.println("The rate of interest:"+10+"per");
                System.out.println("no of employees:"+1500);
                System.out.println("no of branches:"+400);

        }

        }
class icici extends Bank{

        public void getDetails()
        {
                System.out.println("ICICI BANK");
                System.out.println("The rate of interest:"+25+"per");
                System.out.println("no of employees:"+2500);
                System.out.println("no of branches:"+650);

        }

        public static void main(String[] args)
        {
                BOI s=new BOI();
                s.getDetails();
                icici l=new icici();
                l.getDetails();
                SBI p=new SBI();
                p.getDetails();

        }
}
```

```
shreya@shreya:src $ javac Bank.java
shreya@shreya:src $ java icici
BOI BANK
The rate of interest:10per
no of employees:1500
no of branches:400
ICICI BANK
The rate of interest:25per
no of employees:2500
no of branches:650
SBI BANK
The rate of interest:20per
no of employees:2000
no of branches:700
shreya@shreya:src $
shreya@shreya:src $
```