```java
/Ques 1 /Write a program to replace a substring inside a string with other string ?

import java.util.Scanner;

public class Ques1 {

  public static void main(String[] args)
  {
     Scanner sc = new Scanner(System.in);
     System.out.println("enter A String :");
     String String = sc.nextLine();
     System.out.println("Enter the substring to be replaced :");
     String replaceSubString = sc.nextLine();
     if(String.contains(replaceSubString)){
        System.out.println("enter a string to replace the substring : ");
        String replaceString = sc.nextLine();
        System.out.println("String after replacement : "+ String.replace(replaceSubString,replaceString));
     }
     else{
        System.out.println("String does not contains substring to be replaced ! Please try again");
     }
  }
}
```

```java
//Ques 2 Write a program to find the number of occurrences of the duplicate words in a string and print them ?

import java.util.Scanner;

public class Ques2 {
  public static void main(String[] args) {
     Scanner sc = new Scanner(System.in);
     System.out.println("Enter a String : ");
     String string = sc.nextLine();
     int count;

     //Converts the string into lowercase
     string = string.toLowerCase();

     //Split the string into words using built-in function
     String words[] = string.split(" ");

     System.out.println("Duplicate words in a given string : ");
     for(int i = 0; i < words.length; i++) {
        count = 1;
        for(int j = i+1; j < words.length; j++) {
           if(words[i].equals(words[j])) {
              count++;
              //Set words[j] to 0 to avoid printing visited word
              words[j] = "0";
           }
        }

        //Displays the duplicate word and its count only if the count is greater than 1
        if(count > 1 && words[i] != "0") {
           System.out.print(words[i] + " : ");
           System.out.println(count);
        }
     }
  }
}
```

```java
//Ques3  Write a program to find the number of occurrences of a character in a string without using loop?


import java.util.Scanner;

public class Ques3 {
  public static void main(String args[]){
      Scanner sc = new Scanner(System.in);
      System.out.println("Enter a String : ");
      String str = sc.nextLine();
      System.out.println("enter a char ");
      String aChar = sc.nextLine();
      System.out.println("length of string is :" + str.length());
//      System.out.println(str.replace("a", "").length());
//      System.out.println(str.replace("j", ""));
      int count = str.length() - str.replace(aChar, "").length();
      System.out.println("Number of occurances of 'a' in "+str+" = "+count);
  }
}
```

```java
//Ques 4 Calculate the number & Percentage Of Lowercase Letters,Uppercase Letters, Digits And Other Special Characters In A String

import java.util.Scanner;

public class Ques4 {
  public static Scanner sc = new Scanner(System.in);
  public static int lowercase,upper,spc,number;
  public static String s;
  public static int totalLength;
  public void count(String str)
  {

     for(int i=0;i<str.length();i++)
     {
        if(Character.isUpperCase(str.charAt(i)))
        {
           upper++;
        }
        else if (Character.isLowerCase(str.charAt(i)))
        {
           lowercase++;
        }
        else if (Character.isDigit(str.charAt(i)))
        {
           number++;
        }
        else
        {
           spc++;
        }

     }
     countAndPercentageOfLower(lowercase);
     countAndPercentageOfUpper(upper);
     countAndPercentageOfNumber(number);
     countAndPercentageOfSpecialCharacters(spc);
  }

  public void countAndPercentageOfLower(int lowercase)
  {
     System.out.println("number of lowercase characters "+ lowercase);
     double per = (lowercase*100.0)/totalLength;
     System.out.println("percentage of lowercase characters "+ per);


  }
  public void countAndPercentageOfUpper(int upper)
  {
     System.out.println("number of uppercae characters "+ upper);
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        double per = (upper*100.0)/totalLength;
        System.out.println("percentage of uppercase characters "+ per);
    }

    public void countAndPercentageOfNumber(int number)
    {
        System.out.println("number of numbers "+ number);
        double per = (number*100.0)/totalLength;
        System.out.println("percentage of numbers "+ per);
    }



    public void countAndPercentageOfSpecialCharacters(int spc)
    {
        System.out.println("number of special characters "+ spc);
        double per = (spc*100.0)/totalLength;
        System.out.println("percentage of special characters "+ per);
    }


    public static void main(String[] args) {
        System.out.println("enter the string");
        s = sc.next();
        totalLength = s.length();
        Ques4 obj = new Ques4();
        obj.count(s);
    }
}
```

```java
//Ques 5 Find common elements between two arrays.

import java.util.Scanner;

public class Ques5 {
  public static Scanner sc = new Scanner(System.in);
  public void commArray(int[] a,int[] b)
  {
     System.out.println("matching elements between two arrays are");
     for(int i=0;i<a.length;i++)
     {
        for(int j=0;j<b.length;j++)
        {
           if(a[i]==b[j])
           {
              System.out.print(a[i]+" ");

              for(int k=0;k<b.length;k++)
              {
                 if(b[k]==a[i])
                 {
                    b[k]=-0;
                 }
              }
              break;
           }
        }
     }
  }

  public static void main(String[] args) {
     System.out.println("enter length of 1st array");
     int length1 = sc.nextInt();
     int a[] = new int[length1];
     System.out.println("enter elements of first array");
     for(int i=0;i<length1;i++)
     {
        a[i]=sc.nextInt();
     }
     System.out.println("elements of first array are");
     for (int i=0;i<length1;i++)
     {
        System.out.print(a[i]+" ");
     }
     System.out.println();
     System.out.println("enter length of 2nd array");
     int length2 = sc.nextInt();
     int b[] = new int[length2];
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        System.out.println("enter elements of second array");
        for(int i=0;i<length2;i++)
        {
            b[i]=sc.nextInt();
        }
        System.out.println("elements of 2nd array are");
        for (int i=0;i<length2;i++)
        {
            System.out.print(b[i]+" ");
        }
        System.out.println();

        Ques5 q = new Ques5();
        q.commArray(a,b);
    }
}
```

```java
//Ques6 There is an array with every element repeated twice except one. Find that element

import java.util.Scanner;

public class Ques6 {

  public Scanner sc = new Scanner(System.in);
  public static void main(String[] args)
  {
     System.out.println("elements of the array are:");
     int a[]={1,2,3,1,2,3,1,4,5,4,5,6};
     for(int i=0;i<a.length;i++)
     {
        System.out.print(a[i]+" ");
     }
     System.out.println();
     for(int i=0;i<a.length;i++)
     {
        int count=0;
        for(int j=0;j<a.length;j++)
        {
           if(a[i]==a[j])
           {
              count++;
           }
        }
        if(count==1)
        {
           System.out.println("unique element is "+a[i]);
           break;
        }
     }
  }
}
```

```java
//Write a program to print your Firstname,LastName & age using static block,static method & static variable respectively

public class Ques7 {

  static
  {
     System.out.println("using static block");
     System.out.println("FirstName : Aakash LastName : Sinha Age : 24");
  }
  public static String firstname = "aakash";
  public static String lastName = "sinha";
  public static int age = 24;

  public static void getDetails()
  {
     System.out.println("accessing using static method");

     System.out.println("firstname: "+firstname+ " lastName: "+lastName+ " age: "+age);
  }

  public static void main(String[] args)
  {
     System.out.println("accessing using static variables");
     System.out.println("firstname: "+firstname+ " lastName: "+lastName+ " age: "+age);
     getDetails();

  }
}
```

```java
//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 Ques8 {
  public static void main(String[] args) {
      Scanner sc =new Scanner(System.in);
      System.out.println("Enter a String : ");
      String str = sc.nextLine();
      StringBuffer strBuffer = new StringBuffer(str).reverse();
//       strBuffer.reverse();
      System.out.println("Reverse of Entered string is: "+strBuffer);

      strBuffer.replace(4,9,"");
      System.out.println(strBuffer);
  }
}
```

```java
//Write a program to display values of enums using a constructor & getPrice() method
// (Example display house & their prices)

public class Ques9 {

  enum House {
     oneBhk(30), twoBhk(40), threeBhk(50), fourBhk(60), fiveBhk(70);
     private int price;
     House(int p) {
        price = p;
     }

     int getPrice() {
        return price;
     }
  }

  public static void main(String args[]){
     System.out.println("All House prices:");
     for (House home : House.values()) System.out.println(
           home + " costs " + home.getPrice() + " Lakh Rupees.");
  }

  }
```

```java
//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 Ques10 {

    //        A) Adding 2 integer number
    public int overloadedFunction(Integer x, Integer y)
    {
        return (x + y);
    }

    //        B) Adding 2 double
    public double overloadedFunction(double x, double y)
    {
        return (x + y);
    }

    //        C) multiplying 2 float
    public float overloadedFunction(float x, float y)
    {
        return (x * y);
    }

    //        D) multiplying 2 int
    public int overloadedFunction(int x, int y)
    {
        return (x * y);
    }

    //        E) concate 2 string
    public String overloadedFunction(String x, String y)
    {
        return (x + y );
    }

    //        F) Concate 3 String
    public String overloadedFunction(String x, String y, String z)
    {
        return (x + y + z);
    }


    public static void main(String args[])
    {
        Integer integernum1 =10, integernum2=20;
```

```
        double doublenum1 =10.0, doublenum2 =20.0;
        float floatnum1 =10, floatnum2 =20;
        int intnum1 =10, intnum2 =20;
        String s1 = "hey ", s2= "there ", s3="world";

        Ques10 obj = new Ques10();

        //Integer Implementation
        System.out.println(obj.overloadedFunction(integernum1,integernum2));

        //Double Implementation
        System.out.println(obj.overloadedFunction(doublenum1, doublenum2));

        //Float Implementation
        System.out.println(obj.overloadedFunction(floatnum1, floatnum2));

        //int Implementation
        System.out.println(obj.overloadedFunction(intnum1, intnum2));

        //Two String Implementtion
        System.out.println(obj.overloadedFunction(s1,s3));

        //Three String Implementation
        System.out.println(obj.overloadedFunction(s1, s2, s3));

    }
}
```

```java
//Create 3 sub class of bank SBI,BOI,ICICI all 4 should have method called getDetails which provide there specific details like rateo
// finterest etc,print details of every banks


public class Ques11 {
  public static void main(String[] args) {
     SBI sbi = new SBI();
     BOI boi = new BOI();
     ICICI icici = new ICICI();

     //getdetail of SBI bank
     sbi.getDetails();

     //getdetail of BOI bank
     boi.getDetails();

     //getdetail of icici bank
     icici.getDetails();
  }

}


abstract class Bank{

  protected String bankname ;
  protected int bankid;
  protected double rateofinterest;

  public void getDetails(){
     System.out.println("Bank Name : " + bankname);
     System.out.println("Bank Id : "+bankid);
     System.out.println("Rate of Interest : "+ rateofinterest);
  }
}

class SBI extends Bank{

  public SBI(){
     bankid=001;
     bankname="State Bank Of India";
     rateofinterest=3.4;
  }
}

class BOI extends Bank{

  public BOI(){
     bankid=002;
```

```
        bankname="Bank Of India";
        rateofinterest=4;
    }
}
class ICICI extends Bank{

    public ICICI(){
        bankid=003;
        bankname="ICICI";
        rateofinterest=4.5;
    }
}
```