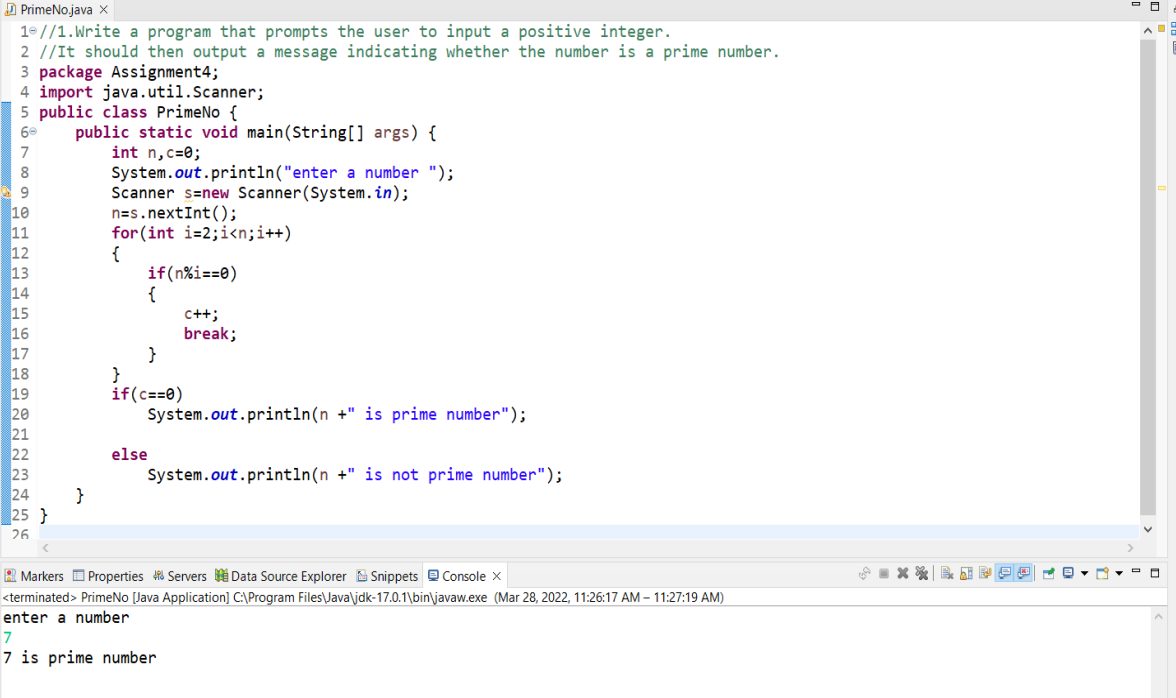


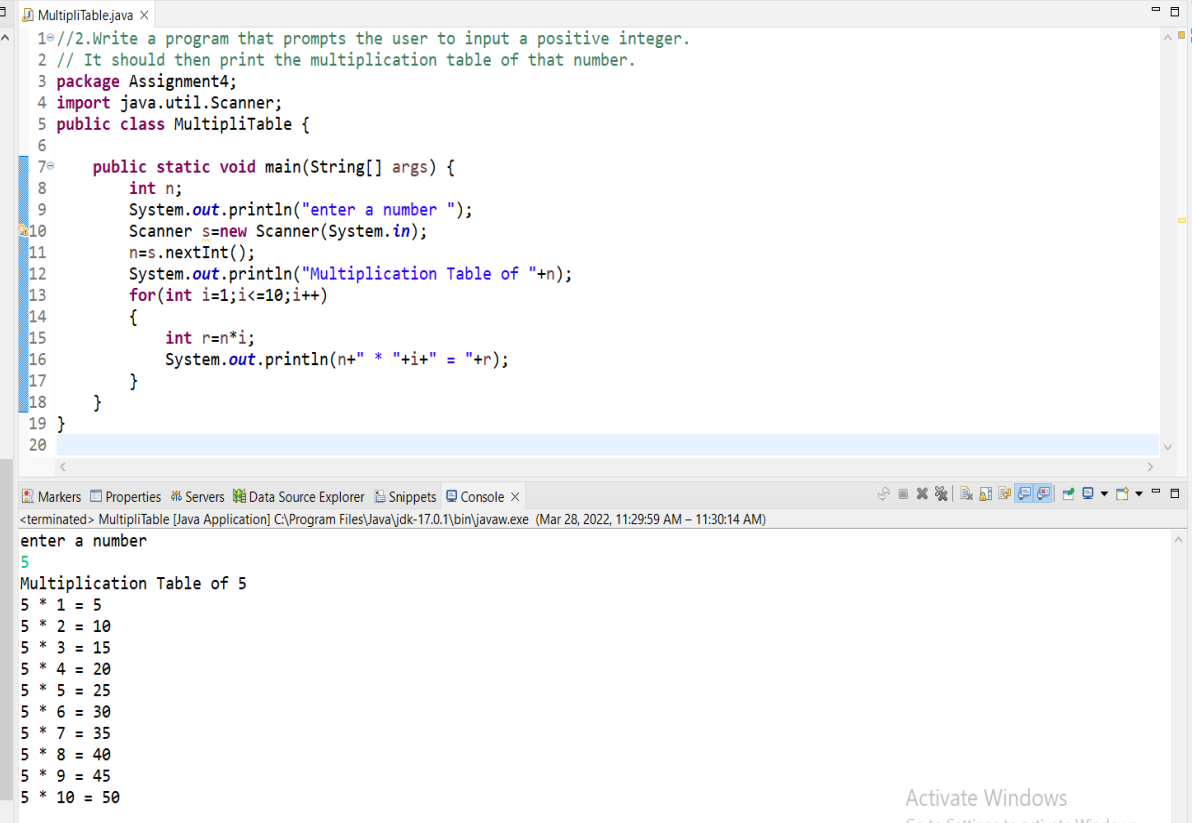
1. Write a program that prompts the user to input a positive integer. It should then output a message indicating whether the number is a prime number.



```
1 //1. Write a program that prompts the user to input a positive integer.
2 //It should then output a message indicating whether the number is a prime number.
3 package Assignment4;
4 import java.util.Scanner;
5 public class PrimeNo {
6     public static void main(String[] args) {
7         int n, c=0;
8         System.out.println("enter a number ");
9         Scanner s=new Scanner(System.in);
10        n=s.nextInt();
11        for(int i=2;i<n;i++)
12        {
13            if(n%i==0)
14            {
15                c++;
16                break;
17            }
18        }
19        if(c==0)
20            System.out.println(n+" is prime number");
21
22        else
23            System.out.println(n+" is not prime number");
24    }
25 }
26
```

enter a number
7
7 is prime number

2. Write a program that prompts the user to input a positive integer. It should then print the multiplication table of that number.



```
1 //2. Write a program that prompts the user to input a positive integer.
2 // It should then print the multiplication table of that number.
3 package Assignment4;
4 import java.util.Scanner;
5 public class MultipliTable {
6
7     public static void main(String[] args) {
8         int n;
9         System.out.println("enter a number ");
10        Scanner s=new Scanner(System.in);
11        n=s.nextInt();
12        System.out.println("Multiplication Table of "+n);
13        for(int i=1;i<=10;i++)
14        {
15            int r=n*i;
16            System.out.println(n+" * "+i+" = "+r);
17        }
18    }
19 }
20
```

enter a number
5
Multiplication Table of 5
5 * 1 = 5
5 * 2 = 10
5 * 3 = 15
5 * 4 = 20
5 * 5 = 25
5 * 6 = 30
5 * 7 = 35
5 * 8 = 40
5 * 9 = 45
5 * 10 = 50

3. A student will not be allowed to sit in exam if his/her attendance is less than 75%.

Take following input from user

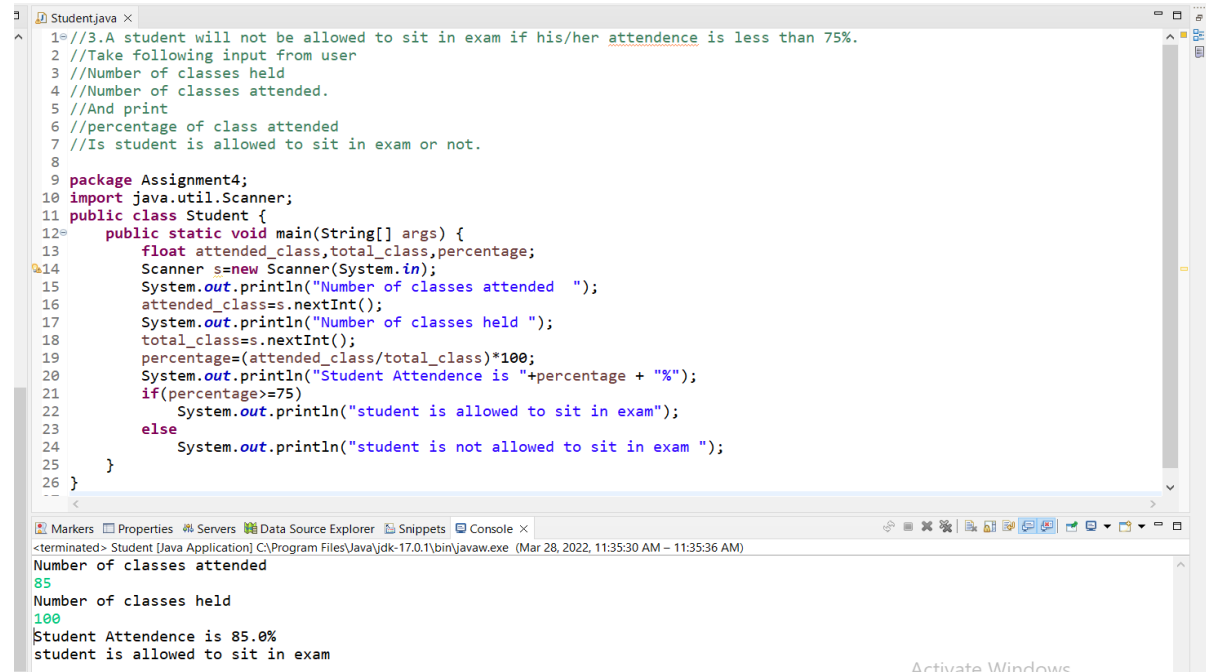
Number of classes held

Number of classes attended.

And print

percentage of class attended

Is student is allowed to sit in exam or not.

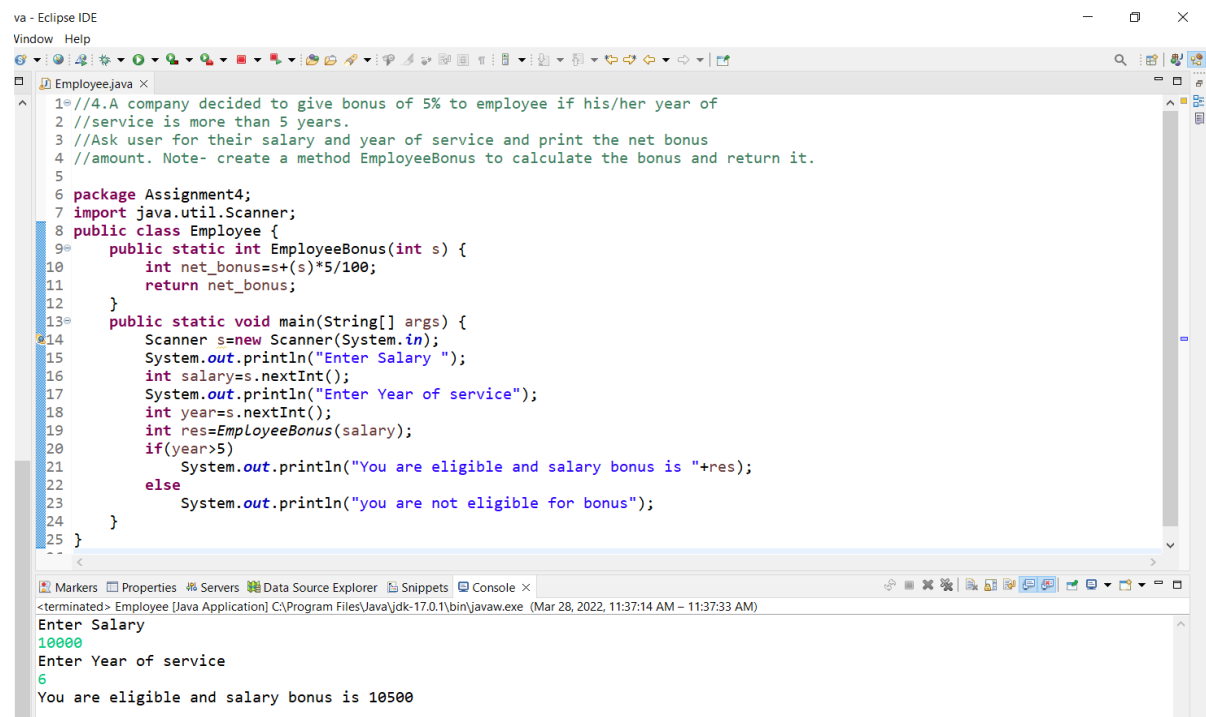


```
1 //3. A student will not be allowed to sit in exam if his/her attendance is less than 75%.
2 //Take following input from user
3 //Number of classes held
4 //Number of classes attended.
5 //And print
6 //percentage of class attended
7 //Is student is allowed to sit in exam or not.
8
9 package Assignment4;
10 import java.util.Scanner;
11 public class Student {
12     public static void main(String[] args) {
13         float attended_class, total_class, percentage;
14         Scanner s = new Scanner(System.in);
15         System.out.println("Number of classes attended ");
16         attended_class = s.nextInt();
17         System.out.println("Number of classes held ");
18         total_class = s.nextInt();
19         percentage = (attended_class / total_class) * 100;
20         System.out.println("Student Attendance is " + percentage + "%");
21         if (percentage >= 75)
22             System.out.println("student is allowed to sit in exam");
23         else
24             System.out.println("student is not allowed to sit in exam ");
25     }
26 }
```

Number of classes attended
85
Number of classes held
100
Student Attendance is 85.0%
student is allowed to sit in exam

4. A company decided to give bonus of 5% to employee if his/her year of service is more than 5 years.

Ask user for their salary and year of service and print the net bonus amount. Note- create a method EmployeeBonus to calculate the bonus and return it.



```
1 //4. A company decided to give bonus of 5% to employee if his/her year of
2 //service is more than 5 years.
3 //Ask user for their salary and year of service and print the net bonus
4 //amount. Note- create a method EmployeeBonus to calculate the bonus and return it.
5
6 package Assignment4;
7 import java.util.Scanner;
8 public class Employee {
9     public static int EmployeeBonus(int s) {
10         int net_bonus = s * 5 / 100;
11         return net_bonus;
12     }
13     public static void main(String[] args) {
14         Scanner s = new Scanner(System.in);
15         System.out.println("Enter Salary ");
16         int salary = s.nextInt();
17         System.out.println("Enter Year of service");
18         int year = s.nextInt();
19         int res = EmployeeBonus(salary);
20         if (year > 5)
21             System.out.println("You are eligible and salary bonus is " + res);
22         else
23             System.out.println("you are not eligible for bonus");
24     }
25 }
```


Enter Salary
10000
Enter Year of service
6
You are eligible and salary bonus is 10500

5. Write a program to input the following details:

- i) Employee Name
- ii) Employee Salary
- iii) Employee Year of joining

Calculate the Loyalty bonus of the Employee's by

- a) if the year of their joining is on or before than 2017, and their Salary is more than 30000/-, then the bonus will be 22% of the salary.
- b) if the year of their joining is on or before than 2017, and their Salary is less than 30000/-, then the bonus will be 33% of the salary.
- c) if the year of their joining is on or before than 2012, then the bonus will be 40% of the salary.
- d) if the year of their joining is after 2017, and their Salary is less than 30000/-, then the bonus will be 15% of the salary.
- e) if the year of their joining is after 2017, and their Salary is more than 30000/-, then the bonus will be 10% of the salary.



```
11 import java.util.Scanner;
12 public class EmployeeArr {
13     public static void main(String[] args) {
14         Scanner sc=new Scanner(System.in);
15         System.out.print("enter the size of array : ");
16         int size=sc.nextInt();
17         String[] name=new String[size];
18         int[] salary=new int[size];int[] yoj=new int[size];
19         System.out.println("enter the details of employees");
20         System.out.println("-----");
21         for(int i=0;i<size;i++){
22             System.out.print("enter the name of employee "+(i+1)+" : ");
23             name[i]=sc.next();
24             System.out.print("enter the salary of employee "+(i+1)+" : ");
25             salary[i]=sc.nextInt();
26             System.out.print("enter the year of joining of employee "+(i+1)+" : ");
27             yoj[i]=sc.nextInt();
28             System.out.println("-----");
29             System.out.println("Loyalty bonus of employee's");
30             int[] bonus=new int[size];
31             for(int i=0;i<size;i++){
32                 if(yoj[i]<=2017 && salary[i]>30000){
33                     bonus[i]=(salary[i])*22/100;
34                     System.out.println("a) bonus of " +name[i]+ " = "+bonus[i]);
35                 }
36                 else if(yoj[i]<=2017 && salary[i]<30000){
37                     bonus[i]=(salary[i])*33/100;
38                     System.out.println("b) bonus of " +name[i]+ " = "+bonus[i]);
39                 }
40                 else if(yoj[i]<=2012){
41                     bonus[i]=(salary[i])*40/100;
42                     System.out.println("c) bonus of " +name[i]+ " = "+bonus[i]);
43                 }
44                 else if(yoj[i]>2017 && salary[i]<30000){
45                     bonus[i]=(salary[i])*15/100;
46                     System.out.println("d) bonus of " +name[i]+ " = "+bonus[i]);
47                 }
48                 else if(yoj[i]>2017 && salary[i]>30000){
49                     bonus[i]=(salary[i])*10/100;
50                     System.out.println("e) bonus of " +name[i]+ " = "+bonus[i]);
51                 }
52                 else {System.out.println("no conditions satisfied");}
53             }
54         }
55     }
56 }
```

<terminated> EmployeeArr [Java Application] C:\Program Files\Java\jdk-17.0.1\bin\java.exe

enter the size of array : 2

enter the details of employees

enter the name of employee 1 : fasina

enter the salary of employee 1 : 35000

enter the year of joining of employee 1 : 2017

enter the name of employee 2 : ammu

enter the salary of employee 2 : 25000

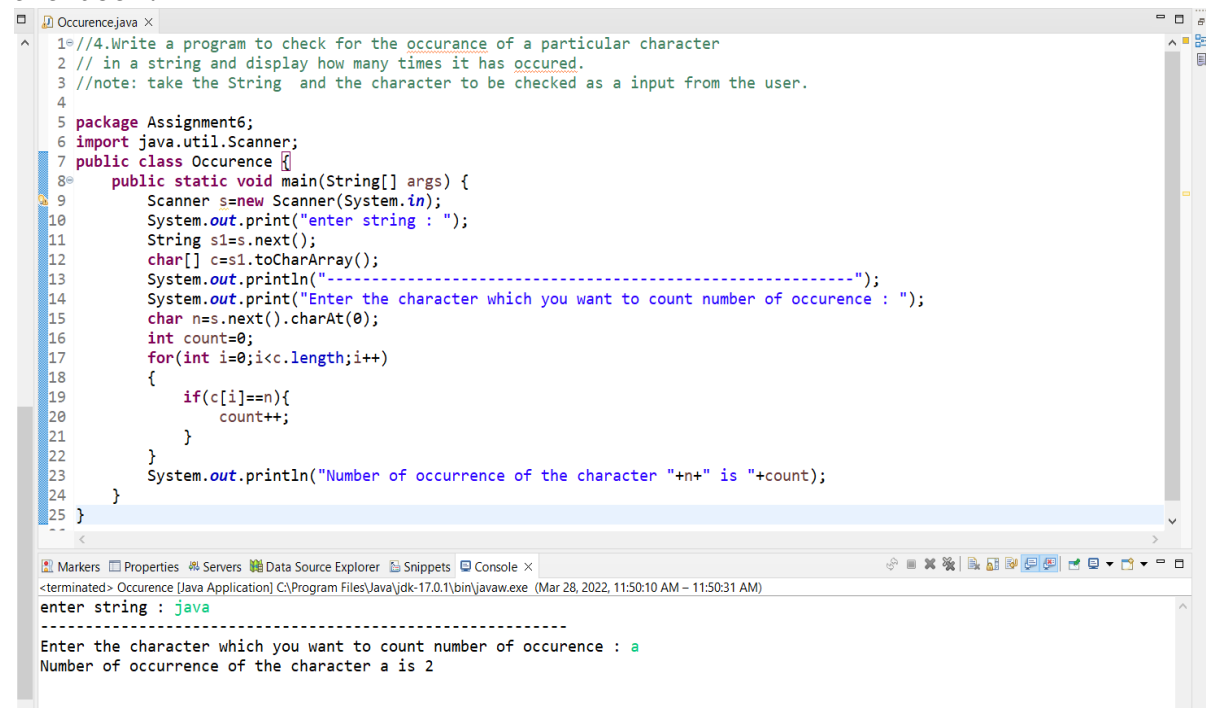
enter the year of joining of employee 2 : 2020

Loyalty bonus of employee's

a) bonus of fasina = 7700

d) bonus of ammu= 3750

6. Write a program to check for the occurrence of a particular character in a string and display how many times it has occurred.
note: take the String and the character to be checked as a input from the user.

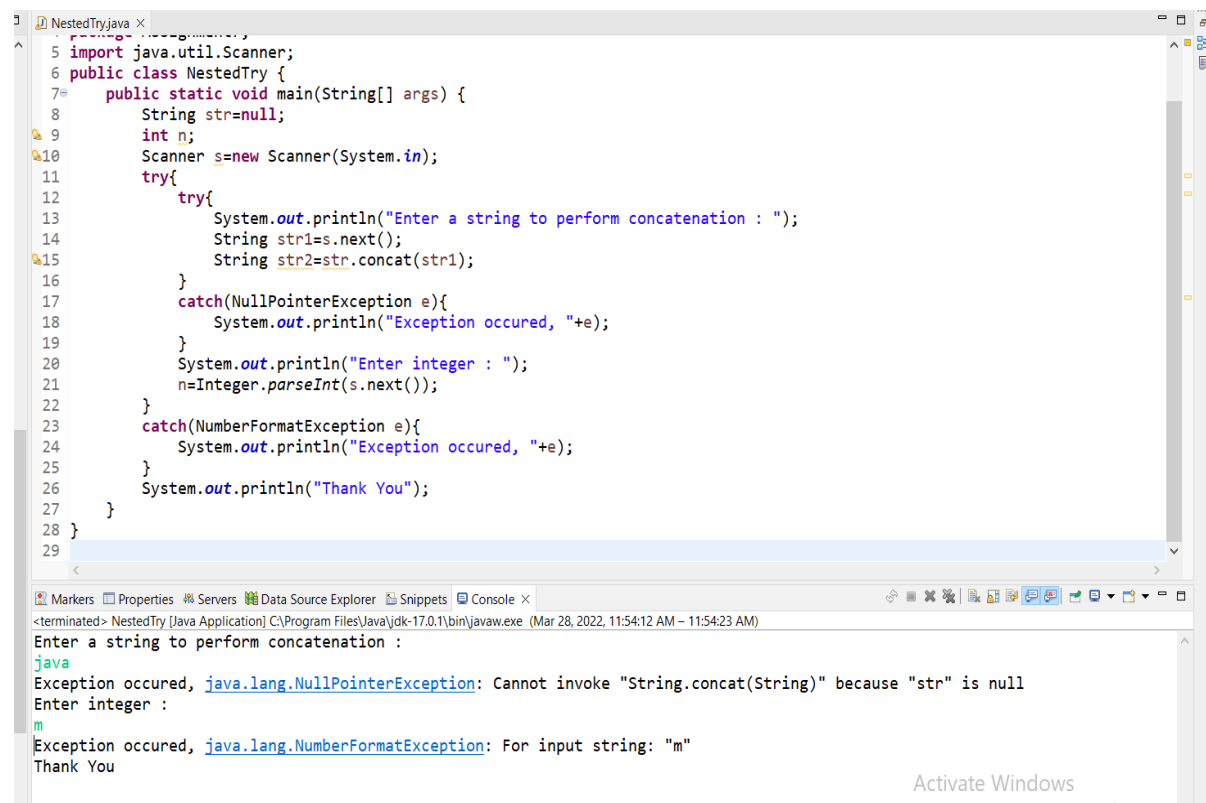


```
1 //4. Write a program to check for the occurrence of a particular character
2 // in a string and display how many times it has occurred.
3 //note: take the String and the character to be checked as a input from the user.
4
5 package Assignment6;
6 import java.util.Scanner;
7 public class Occurrence {
8     public static void main(String[] args) {
9         Scanner s = new Scanner(System.in);
10        System.out.print("enter string : ");
11        String s1 = s.next();
12        char[] c = s1.toCharArray();
13        System.out.println("-----");
14        System.out.print("Enter the character which you want to count number of occurrence : ");
15        char n = s.next().charAt(0);
16        int count = 0;
17        for(int i = 0; i < c.length; i++)
18        {
19            if(c[i] == n){
20                count++;
21            }
22        }
23        System.out.println("Number of occurrence of the character "+n+" is "+count);
24    }
25 }
```

Console Output:

```
<terminated> Occurrence [Java Application] C:\Program Files\Java\jdk-17.0.1\bin\javaw.exe (Mar 28, 2022, 11:50:10 AM - 11:50:31 AM)
enter string : java
-----
Enter the character which you want to count number of occurrence : a
Number of occurrence of the character a is 2
```

7. Write a program to implement nested try-catch block for NULL Pointer exception and NumberFormat Exception



```
1 //4. Write a program to implement nested try-catch block for NULL Pointer exception
2 // and NumberFormat Exception
3
4 package Assignment6;
5 import java.util.Scanner;
6 public class NestedTry {
7     public static void main(String[] args) {
8         String str = null;
9         int n;
10        Scanner s = new Scanner(System.in);
11        try{
12            try{
13                System.out.println("Enter a string to perform concatenation : ");
14                String str1 = s.next();
15                String str2 = str.concat(str1);
16            }
17            catch(NullPointerException e){
18                System.out.println("Exception occurred, "+e);
19            }
20            System.out.println("Enter integer : ");
21            n = Integer.parseInt(s.next());
22        }
23        catch(NumberFormatException e){
24            System.out.println("Exception occurred, "+e);
25        }
26        System.out.println("Thank You");
27    }
28 }
29 }
```

Console Output:

```
<terminated> NestedTry [Java Application] C:\Program Files\Java\jdk-17.0.1\bin\javaw.exe (Mar 28, 2022, 11:54:12 AM - 11:54:23 AM)
Enter a string to perform concatenation :
java
Exception occurred, java.lang.NullPointerException: Cannot invoke "String.concat(String)" because "str" is null
Enter integer :
m
Exception occurred, java.lang.NumberFormatException: For input string: "m"
Thank You
```