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.

PrimeNo.java

```
//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.
package Assignment4;
import java.util.Scanner;
public class PrimeNo {
    public static void main(String[] args) {
        int n,c=0;
        System.out.println("enter a number ");
        Scanner s=new Scanner(System.in);
        n=s.nextInt();
        for(int i=2;i<n;i++)
        {
            if(n%i==0)
            {
                c++;
                break;
            }
        }
        if(c==0)
            System.out.println(n +" is prime number");

        else
            System.out.println(n +" is not prime number");
    }
}
```

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<terminated> PrimeNo [Java Application] C:\Program Files\Java\jdk-17.0.1\bin\javaw.exe (Mar 28, 2022, 11:26:17 AM – 11:27:19 AM)

```
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.

MultipliTable.java

```
//2.Write a program that prompts the user to input a positive integer.
// It should then print the multiplication table of that number.
package Assignment4;
import java.util.Scanner;
public class MultipliTable {

    public static void main(String[] args) {
        int n;
        System.out.println("enter a number ");
        Scanner s=new Scanner(System.in);
        n=s.nextInt();
        System.out.println("Multiplication Table of "+n);
        for(int i=1;i<=10;i++)
        {
            int r=n*i;
            System.out.println(n+" * "+i+" = "+r);
        }
    }
}
```

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<terminated> MultipliTable [Java Application] C:\Program Files\Java\jdk-17.0.1\bin\javaw.exe (Mar 28, 2022, 11:29:59 AM – 11:30:14 AM)

```
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.

Student.java

```
//3.A student will not be allowed to sit in exam if his/her attendence 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.

package Assignment4;
import java.util.Scanner;
public class Student {
    public static void main(String[] args) {
        float attended_class,total_class,percentage;
        Scanner s=new Scanner(System.in);
        System.out.println("Number of classes attended  ");
        attended_class=s.nextInt();
        System.out.println("Number of classes held ");
        total_class=s.nextInt();
        percentage=(attended_class/total_class)*100;
        System.out.println("Student Attendence is "+percentage + "%");
        if(percentage>=75)
            System.out.println("student is allowed to sit in exam");
        else
            System.out.println("student is not allowed to sit in exam ");
    }
}
```

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```
<terminated> Student [Java Application] C:\Program Files\Java\jdk-17.0.1\bin\javaw.exe  (Mar 28, 2022, 11:35:30 AM – 11:35:36 AM)
Number of classes attended
85
Number of classes held
100
Student Attendence 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.

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Employee.java

```
//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.

package Assignment4;
import java.util.Scanner;
public class Employee {
    public static int EmployeeBonus(int s) {
        int net_bonus=s+(s)*5/100;
        return net_bonus;
    }
    public static void main(String[] args) {
        Scanner s=new Scanner(System.in);
        System.out.println("Enter Salary ");
        int salary=s.nextInt();
        System.out.println("Enter Year of service");
        int year=s.nextInt();
        int res=EmployeeBonus(salary);
        if(year>5)
            System.out.println("You are eligible and salary bonus is "+res);
        else
            System.out.println("you are not eligible for bonus");
    }
}
```

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```
<terminated> Employee [Java Application] C:\Program Files\Java\jdk-17.0.1\bin\javaw.exe  (Mar 28, 2022, 11:37:14 AM – 11:37:33 AM)
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.

EmployeeArr.java

```
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         else if(yoj[i]<=2017 && salary[i]<30000){
36             bonus[i]=(salary[i])*33/100;
37             System.out.println("b) bonus of " +name[i]+ " = "+bonus[i]);}
38         else if(yoj[i]<=2012){
39             bonus[i]=(salary[i])*40/100;
40             System.out.println("c) bonus of " +name[i]+ "= "+bonus[i]);}
41         else if(yoj[i]>2017 && salary[i]<30000){
42             bonus[i]=(salary[i])*15/100;
43             System.out.println("d) bonus of " +name[i]+ "= "+bonus[i]);}
44         else if(yoj[i]>2017 && salary[i]>30000){
45             bonus[i]=(salary[i])*10/100;
46             System.out.println("e) bonus of " +name[i]+ " = "+bonus[i]);}
47         else {System.out.println("no conditions satisfied");}}}}
48
```

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<terminated> EmployeeArr [Java Application] C:\Program Files\Java\jdk-17.0.1\bi

```
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 howmany times it has occurred.
note: take the String and the character to be checked as a input from the user.

Occurence.java

```
//4.Write a program to check for the occurance of a particular character
// in a string and display how many times it has occured.
//note: take the String  and the character to be checked as a input from the user.

package Assignment6;
import java.util.Scanner;
public class Occurence {
    public static void main(String[] args) {
        Scanner s=new Scanner(System.in);
        System.out.print("enter string : ");
        String s1=s.next();
        char[] c=s1.toCharArray();
        System.out.println("------------------------------------------------------------");
        System.out.print("Enter the character which you want to count number of occurence : ");
        char n=s.next().charAt(0);
        int count=0;
        for(int i=0;i<c.length;i++)
        {
            if(c[i]==n){
                count++;
            }
        }
        System.out.println("Number of occurrence of the character "+n+" is "+count);
    }
}
```

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```
<terminated> Occurence [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 occurence : 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

NestedTry.java

```
import java.util.Scanner;
public class NestedTry {
    public static void main(String[] args) {
        String str=null;
        int n;
        Scanner s=new Scanner(System.in);
        try{
            try{
                System.out.println("Enter a string to perform concatenation : ");
                String str1=s.next();
                String str2=str.concat(str1);
            }
            catch(NullPointerException e){
                System.out.println("Exception occured, "+e);
            }
            System.out.println("Enter integer : ");
            n=Integer.parseInt(s.next());
        }
        catch(NumberFormatException e){
            System.out.println("Exception occured, "+e);
        }
        System.out.println("Thank You");
    }
}
```

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```
<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 occured, java.lang.NullPointerException: Cannot invoke "String.concat(String)" because "str" is null
Enter integer :
m
Exception occured, java.lang.NumberFormatException: For input string: "m"
Thank You
```