sba - 7

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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.

**import** java.util.Scanner;

**public** **class** primenumber {

**public** **static** **void** main(String[] args) {

**int** n, count=0;

Scanner s = **new** Scanner(System.***in***);

System.***out***.print("Enter the positive number you want to check:");

n = s.nextInt();

**if**(n > 0)

{

**for**(**int** i=2; i<n; i++)

{

**if**(n % i == 0)

{

count++;

**break**;

}

}

**if**(count==0)

System.***out***.println("enterd number is = "+ n + " and it is a Prime Number.");

**else**

System.***out***.println("enterd number is = "+ n +" and it is not a Prime Number.");

}

**else**

{

System.***out***.println("Enter a postive number , Negative numbers are not allowed");

}

}

}

OUTPUT :

Graphical user interface, text, application, email

Description automatically generated

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

**import** java.util.Scanner;

**public** **class** PrimeMultiplication {

**public** **static** **void** main(String[] args) {

**int** n;

Scanner s = **new** Scanner(System.***in***);

System.***out***.print("Enter the positive number:");

n = s.nextInt();

**if**(n > 0)

{

**for** (**int** i=1;i<=10;i++)

{

System.***out***.println(n +" "+ "\*"+" "+ i +" "+"="+" "+ n \* i);

}

}

**else**

{

System.***out***.println("Enter a postive number , Negative numbers are not allowed");

}

}}

OUTPUT:

Graphical user interface, text, application, email

Description automatically generated

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.

**import** java.util.Scanner;

**public** **class** Attendence {

**public** **static** **void** main(String[] args) {

**int** a=75;

System.***out***.println("The number of classes held was 75 days");

**float** b;

Scanner sc = **new** Scanner(System.***in***);

System.***out***.print("Enter Number of classes attended = ");

b=sc.nextFloat();

**float** percentage;

percentage=(b/a)\*100;

System.***out***.println("percentage of class attended is ="+percentage+" "+"%");

**if**(percentage>75) {

System.***out***.println("student is qualified to attend the exam!!");

}

**else** {

System.***out***.println("student is not qualified to attend the exam!!");

}

}

}

OUTPUT:

Graphical user interface, text, application, email

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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 Employee Bonus to calculate the bonus and return it.

**import** java.util.Scanner;

**public** **class** EmployeeBonus {

**public** **static** **void** main(String[] args) {

**int** Salary,Year;

**float** bonus;

Scanner sc= **new** Scanner(System.***in***);

System.***out***.print("Enter your salary = ");

Salary=sc.nextInt();

System.***out***.print("Enter your year of service = ");

Year=sc.nextInt();

**if**(Year>5) {

bonus=Salary+(Salary)\*5/100;

System.***out***.println("You are upgraded and net bonus amount= "+bonus);

}

**else** {

System.***out***.println("You are not eligible for bonus");

}

}

}

OUTPUT:

Graphical user interface, text, application, email

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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 Salaryis 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 Salaryis 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 than30000/-, then the bonus will be 15% of the salary.

e)if the year of their joining is after 2017,and their Salary is more than30000/-, then the bonus will be 10% of the salary.

**import** java.util.Scanner;

**public** **class** EmployeeArray {

**public** **static** **void** main(String[] args) {

**int** x;

String[] name = **new** String[25];

**int**[] salary = **new** **int**[15];

**int**[] YearofJoining = **new** **int**[5];

**double**[] bonus = **new** **double**[15];

Scanner s = **new** Scanner(System.***in***);

System.***out***.println("Enter the no of employees");

x = s.nextInt();

**int**[] arr = **new** **int**[x];

**for**(**int** i=0;i<x;i++) {

System.***out***.println("Enter your name");

name[i] = s.next();

System.***out***.println("Enter your salary");

salary[i] = s.nextInt();

System.***out***.println("Enter your year of joining");

YearofJoining[i] = s.nextInt();

System.***out***.println("Loyalty bonus for"+ name[i]+" is: ");

**if** (YearofJoining[i]<=2007 && salary[i]>30000)

{

bonus[i]= (salary[i]\*22)/100;

}

**else** **if** (YearofJoining[i]<=2007 && salary[i]>30000 )

{

bonus[i]=(salary[i]\*33)/100;

}

**else** **if** (YearofJoining[i]<=2012 )

{

bonus[i]=(salary[i]\*40)/100;

}

**else** **if** (YearofJoining[i]>=2017 && salary[i]<30000 )

{

bonus[i]=(salary[i]\*15)/100;

}

**else** **if** (YearofJoining[i]>=2017 && salary[i]>30000 )

{

bonus[i]=(salary[i]\*10)/100;

}

System.***out***.println(""+bonus[i]);

}

}}

OUTPUT:

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6. 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.

**import** java.util.Scanner;

**public** **class** OccuranceString {

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("Enter the String= ");

String s1= sc.nextLine();

System.***out***.println("Enter the character in the string= ");

**int** count=0;

**char** c= sc.next().charAt(0);

**for**(**int** i=0; i<s1.length(); i++) {

**if** (s1.charAt(i)==c) {

count++;

}

}

System.***out***.println("------------------------------------------");

**if** (count==0) {

System.***out***.println(c+" is not in the string");

}

**else** {

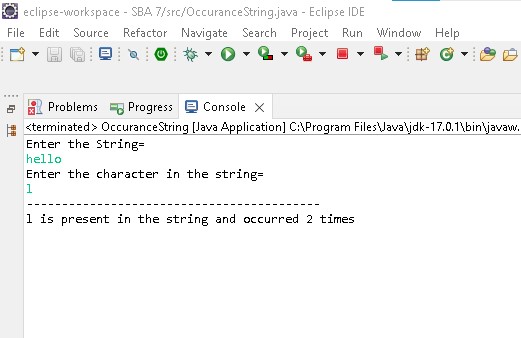
System.***out***.println(c+" is present in the string and occurred "+count+" times");

}

}

}

OUTPUT:



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

**import** java.util.Scanner;

**public** **class** Exception1 {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Scanner scanner=**new** Scanner(System.in);

System.out.println("Enter charcter");

String string=**null**;

**try** {

**try** {

System.out.println(string.length());

}

**catch** (Exception e) {

// **TODO**: handle exception

System.out.println("Null pointer exception");

System.out.println(e);

}

**try** {

**int** k=Integer.parseInt(string); //number format exception

}

**catch** (Exception e) {

// **TODO**: handle exception

System.out.println("Numberformatexception");

System.out.println(e);

}

}

**catch** (Exception e) {

// **TODO**: handle exception

System.out.println("exception");

}

}

}

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