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ASSIGNMENT-01

Name :- P. Bala Nagasimhure

Course :- Java programming

Code :- CSA 0985

Date :- 10/7/2024

- of the no. upto n :-

```
import java.util.*;
```

```
Class Sum {
```

```
Public Static void main (String args[]) {
```

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

```
int n = sc.nextInt();
```

```
int Sum = 0;
```

```
for (int i = 1; i <= n; i++) {
```

```
    Sum = Sum + i;
```

```
} System.out.print ("Sum is: " + Sum);
```

```
}
```

Input :- n = 10

Output :- Sum is 55

② Prime Number :-

```
import java.util.*;
```

```
Class prime {
```

```
Public Static void main (String args[]) {
```

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

```
int n = sc.nextInt();
```

```
int Count = 0;
```

```
for (int i = 1; i <= n; i++) {
```

```
    if (n % i == 0) {
```

```

        Count ++ ;
    }
    if (Count == 2) {
        System.out.println ("prime");
    }
    else {
        System.out.println ("Composite");
    }
}
}

```

input :- n=3

output :- prime.

Factorial of numbers:-

```

Class Factorial {
    public static void main (String args[]) {
        int n=6;
        int fact=1;
        for (int i=1; i<=n; i++) {
            fact = fact*i;
        }
        System.out.println (fact);
    }
}

```

Output :- 720

Reverse of a number :-

```
Class Reverse - of - number {  
Public Static void main (String arg[]) {  
    int n = 341;  
    int rev = 0;  
    While (n > 0) {  
        i = n % 10;  
        rev = rev * 10 + i;  
        n = n / 10;  
    }  
    System.out.println("Reversed number is: " + rev);  
}
```

Output : 143

⑤ Armstrong Number

```
Class Armstrong {  
Public Static void main (String arg[]) {  
    int n = 153;  
    int temp = n;  
    While (n > 0) {  
        i = n % 10;  
        Sum = i * i * i;  
        n = n / 10;  
    }  
    if (Sum == temp) {  
        System.out.println("Armstrong");  
    }  
    else {  
        System.out.println("Not Armstrong");  
    }  
}
```


⑥ Palindrome :-

```
Class palindrome {
    Public Static void main (String args[]) {
        int n = 12321;
        int rev = 0;
        while (n > 0) {
            i = n % 10;
            rev = rev * 10 + i;
            n = n / 10;
        }
        if (rev == n) {
            System.out.println ("Palindrome");
        }
        else {
            System.out.println ("Not palindrome");
        }
    }
}
```

Accessible by
Class
Public
Static
int

Output :-

⑦ Sum of the digits

```
Class Sum of Digits {
    Public Static void main (String args[]) {
        int n = 123;
        int sum = 0;
        while (n > 0) {
            i = n % 10;
            sum = sum + i;
            n = n / 10;
        }
        System.out.println ("The sum is " + sum);
    }
}
```

Output = 6

... by a and - upto n:-

```
Class Divisibility {  
Public Static void main (String args[]) {  
    int n = 100;  
    for (int i=1; i<=n; i++) {  
        if (i % 5 == 0 & i % 7 == 0) {  
            System.out.print (i);  
        }  
    }  
}
```

Output :-

35
70

9

Perfect Number

```
Class Perfect {  
Public Static void main (String args[]) {  
    int sum = 0;  
    int n = 28;  
    int o = n;  
    for (i=1; i<n; i++) {  
        if (n % i == 0) {  
            sum = sum + i;  
        }  
    }  
    if (sum == o) {  
        System.out.print n (" perfect");  
    }  
    else {  
        System.out.println (" Nope");  
    }  
}
```

Output:-

Perfect

Sum of even-odd :-

```
Class Sum_of_even-odd {  
    Public Static void main (String args[]) {  
        int n = 10; // sum = 0, o sum = 0;  
        for (int i = 1; i < n; i++) {  
            if (i % 2 == 0)  
            {  
                e sum += i;  
            }  
            else {  
                o sum += i;  
            }  
            System.out.println("e sum : " + e sum);  
            System.out.println("o sum : " + o sum);  
        }  
    }  
}
```

Output :-

e sum = 30

o sum = 25

Leap year :-

```
Class Leap year {  
    Public Static void main (String args[]) {  
        int year = 2024;  
        if (year % 4 == 0 || year % 400 == 0 && year % 100 != 0)  
        {  
            System.out.println("Leap year");  
        }  
        else {  
            System.out.println("Not Leap year");  
        }  
    }  
}
```

Output :-

Leap year.

Even or Odd

```
Class Even-odd {  
Public Static void main (String args[]) {  
    int n=400;  
    if (n%2 == 0) {  
        System.out.println ("Even");  
    }  
    else {  
        System.out.println ("odd");  
    }  
}
```

Output:-

Even.

(13)

Gcd and Lcm

```
Class Gcd-Lcm {  
Public Static void main (String args[]) {  
    int a=2;  
    int b=4;  
    int temp;  
    while (b>0) {  
        temp = b;  
        b = a%b;  
        a = temp;  
    }  
    int gcd = a;  
    int Lcm = (a+b)/gcd;  
    System.out.println ("Gcd "+gcd);  
    System.out.println ("Lcm "+Lcm);  
}
```

Output:-

Gcd: 2

Lcm: 4

(14)

Strong Number :-

```

Class StrongNumber {
    Public Static void main (String args[]) {
        int n = 145;
        int sum = 0, rem, fact;
        int temp = n;
        while (n > 0) {
            rem = n % 10;
            fact = 1;
            for (i = 1; i <= rem; i++) {
                fact = fact * i;
            }
            sum = sum + fact;
            n = n / 10;
        }
    }
}

```

```

        if (sum == temp) {
            System.out.println("Strong");
        } else {
            System.out.println("Not");
        }
    }
}

```

Output :-

Strong

(15)

Celsius to Fahrenheit :-

```

Class Temperature {
    Public Static void main (String args[]) {
        double Celsius = 39.0;
        double Fahrenheit = (Celsius * 9/5) + 32;
        System.out.println(Fahrenheit);
    }
}

```

Output :- 102.2Fahrenheit to Celsius :-

```

Class Temperature {
    Public Static void main (String args[]) {
        double Fahrenheit = 102.2;
        double Celsius = (Fahrenheit - 32) * 5/9;
    }
}

```

```
System.out.println("Celsius");
```

Output :-

39.0

18) Binary to Decimal

```
Class BinaryToDecimal {  
    Public Static void main (String args[]) {  
        String binaryString = "1010";  
        int decimal = Integer.parseInt(binaryString, 2);  
        System.out.println("decimal");  
    }  
}
```

Output :-

10

19) Decimal to Binary

```
Class DecimalToBinary {  
    Public Static void main (String args[]) {  
        int decimal = 10;  
        String binary = Integer.toBinaryString(decimal);  
        System.out.println("binary");  
    }  
}
```

Output :-

1010

20. Addition of 2 numbers:-

```
Class Addition of 2 numbers {  
Public Static void main (String args[]) {  
    int a=2;  
    int b=3;  
    int c=a+b;  
    System.out.println ("sum is : "+c);  
}
```

Output :-

sum is 5