**I. Explicare operatori**

* **{}-**de
* **[]**
* **()**
* **;**
* **, -**delimiteaza parametrii dintre un grup de parametri
* **&&**
* **||**

**EX: Suma si inmultirea a doua numere**

**package** ro.sda;  
  
**public class** Exercitiu **{  
  
 public static int sum(int *a***, **int *b*) {  
 return *a*** + ***b*** ;  
  
 **}  
  
 public static int multiply( int *a*** , **int *b*) {  
 return *a*** \* ***b***;  
  
 **}  
  
 public static void main(**String**[] *args*) {  
  
 int *x*** = **5**;  
 **int *y*** = **3**;  
  
 **int *z*** = ***sum*(*x***, ***y*)**;  
 System.*out*.println**(*z*)**;  
  
 System.*out*.println**(*multiply*(*x***, ***y*))**;  
 **}  
}**

**package** ro.sda;  
  
**public class** Exercitiu **{  
  
 public static int sum(int *a***, **int *b*) {  
 return *a*** + ***b*** ;  
  
 **}  
  
 public static int multiply( int *a*** , **int *b*) {  
 return *a*** \* ***b*** ;  
  
 **}  
 public static int sumArray(int[]*myArray*) {  
 int *sumOfArray*** = **0**;  
  
 **for(int *i*** = **0**; ***i***<***myArray***.length; ***i***++**) {  
 *sumOfArray*** = ***sumOfArray*** + ***myArray*[*i*]**; SAU ***sumOfArray*** =***sum*(*sumOfArray***, ***myArray*[*i*])**;  
**}**

**}  
 return *sumOfArray***;  
 **}  
  
 public static void main(**String**[] *args*) {  
  
 int *x*** = **5**;  
 **int *y*** = **3**;  
  
  
 **int *z*** = ***sum*(*x***, ***y*)**;  
 System.*out*.println**(*z*)**;  
  
 System.*out*.println**(*multiply*(*x***, ***y*))**;  
  
 **int [] *numbers*** = **{5**, **8**, **9**, **23}**;  
  
 **int *sumOfArray*** = ***sumArray*(*numbers*)**;  
 System.*out*.println**(*sumOfArray*)**;  
 **}  
  
}**

**II. SCOPE**

* domeniu de accesibilitate;

**Ex: De afisat toate numerele prime pana la N**

**package** primeunitn;  
  
**import** java.util.Scanner;  
*// prints out all prime numbers until N***public class** Primeunitn **{  
 public static void main(**String**[] *args*) {** Scanner ***scanner*** = **new** Scanner**(**System.*in***)**;  
  
 System.*out*.println**(*"Introdu n: "*)**;  
 **int *n*** = ***scanner***.nextInt**()**;  
  
 System.*out*.println**(*"n= "*** + ***n*)**;  
  
*// iterez de la 0 la n* **for(int *i*** = **2**; ***i*** < ***n***; ***i***++**) {  
  
 int *divizori*** = **0**;  
  
  
*// System.out.println(" Testam daca " +i+ " este numar prim. " );  
  
// presupunem ca numarul este prim* **for(int *j*** = **2**; ***j*** < ***i***; ***j***++**) {***// System.out.println(" Testam restul impartirii lui " +i+ " la " +j+";");  
 // testam restul impartirii lui i la j* **if(*i*** % ***j*** == **0) {  
 *divizori*** = ***divizori*** + **1**;  
  
 **}  
  
  
 }** *// daca nu are niciun divizor numarul este prim  
// System.out.println(" Numarul de divizori ai lui " + i +" este " +divizori);* **if (*divizori*** == **0) {** System.*out*.println**( *i*** + ***" este numar prim "*)**;  
  
 **}***// System.out.println("--------");* **}  
  
  
 }  
}**

**SAU**

**package** primeunitn;  
  
**import** java.util.Scanner;  
*// prints out all prime numbers until N***public class** Primeunitn **{  
  
 public static void isPrimeNumber(int *number*) {  
  
 int *divizori*** = **0**;  
   
 **for(int *j*** = **2**; ***j*** < ***number***; ***j***++**) {  
  
  
 if(*number*** % ***j*** == **0) {  
 *divizori*** = ***divizori*** + **1**;  
 **}  
 }  
 if (*divizori*** == **0)** System.*out*.println**(*number*** + ***" este numar prim "*)**;  
   
 **}  
 public static void main(**String**[] *args*) {** Scanner ***scanner*** = **new** Scanner**(**System.*in***)**;  
  
 System.*out*.println**(*"Introdu n: "*)**;  
 **int *n*** = ***scanner***.nextInt**()**;  
  
 System.*out*.println**(*"n= "*** + ***n*)**;

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

**SAU**

**package** primeunitn;  
  
**import** java.util.Scanner;  
*// prints out all prime numbers until N***public class** Primeunitn **{  
  
 public static void isPrimeNumber(int *number*) {  
  
 int *divizori*** = **0**;  
  
 **for (int *j*** = **2**; ***j*** < ***number***; ***j***++**) {  
  
  
 if (*number*** % ***j*** == **0) {  
 *divizori*** = ***divizori*** + **1**;  
 **}  
 }  
 if (*divizori*** == **0)** System.*out*.println**(*number*** + ***" este numar prim "*)**;  
  
 **}  
  
  
 public static void showPrimesUnitN(int *n*) {  
 for (int *i*** = **2**; ***i*** < ***n***; ***i***++**) {  
 *isPrimeNumber*(*i*)**;  
 **}  
 }  
  
 public static void main(**String**[] *args*) {** Scanner ***scanner*** = **new** Scanner**(**System.*in***)**;  
 System.*out*.println**(*"Introdu n: "*)**;  
 **int *n*** = ***scanner***.nextInt**()**;  
  
 System.*out*.println**(*"n= "*** + ***n*)**;  
  
 ***showPrimesUnitN*(*n*)**;  
  
 **}  
}**

**EX: Cititi numere de la tastatura si afisati 5 numere care sunt mai mari decat 0.**

import java.util.Scanner;

public class Read5NumbersHigherThen0 {

public static void main(String[] args) {

checkNumbers(5);

}

static void checkNumbers(int maxNumbers) {

Scanner sc = new Scanner(System.in);

System.out.println("Input number: ");

int number = sc.nextInt();

int max = number;

int min = number;

int countPoz = 0;

if(number > 0){

countPoz++;

}

int totalCount = 1;

while (countPoz < maxNumbers) {

System.out.println("Input number: ");

number = sc.nextInt();

if (number > 0) {

countPoz++;

}

if(number > max){

max = number;

}

if(number < min){

min = number;

}

totalCount++;

}

System.out.println("You entered " + maxNumbers + " numbers higher then 0, out of " + totalCount + " numbers");

System.out.println("The maximum number is: " + max + " and the minimum is: " + min);

}

}

**SAU**

**package** cincinumere;  
  
**import** java.util.Scanner;  
  
**public class** Cincinumere **{  
  
 public static void main(**String**[] *args*) {** Scanner ***scanner*** = **new** Scanner**(**System.*in***)**;  
  
  
  
 **int *ncount*** = **0**; *// numarul de numere pozitive* **int *max*** = Integer.*MIN\_VALUE*;  
 **int *min*** = Integer.*MAX\_VALUE*;  
  
 **while(*ncount***<**5){** System.*out*.println**(*"Scrie numarul : "*)**;  
 **int *n*** = ***scanner***.nextInt**()**;  
  
 **if(*n***>**0){  
 *ncount*** = ***ncount*** +**1**;  
  
  
 System.*out*.println**( *ncount***+ ***" numar pozitiv. "* )**;  
  
 **}else {** System.*out*.println**(*n***+ ***" este numar negativ."*)**;  
 **}  
  
 if(*n***>***max*) {  
 *max*** = ***n***;  
  
 **}  
 if(*n***<***min*){  
 *min*** = ***n***;  
 **}  
  
 }**System.*out*.println**()**;  
 System.*out*.println**(*"Maximul este "*** + ***max*)**;  
 System.*out*.println**()**;  
 System.*out*.println**(*" Minimul este "*** +***min*)**;  
  
  
  
 **}  
}**

**EX: De citit de la tastatura n numere prime;**

**package** nrprim;  
  
**import** java.util.Scanner;  
  
**public class** Nrprim **{  
  
 public static void printFirstNPrime (int *n*) {  
 int *primesFound*** = **0**;  
 **int *i*** = **2**;  
 **while(*primesFound*** < ***n*) {  
 int *divisors*** = **0**;  
  
 **for (int *j*** = **2**; ***j*** < ***i***; ***j***++**) {  
 if (*i*** % ***j*** == **0) {  
 *divisors***++;  
 **}  
 }  
 if (*divisors*** == **0) {** System.*out*.println**(*"Numarul "*** + ***i*** + ***" este prim"*)**;  
 ***primesFound***++;  
 **}  
 *i***++;  
 **}***// System.out.println(" testing " +i);* **}  
  
  
 public static void main(**String**[] *args*) {** Scanner ***scanner*** = **new** Scanner**(**System.*in***)**;  
 System.*out*.println**(*"Please enter n: "*)**;  
 **int *n*** = ***scanner***.nextInt**()**;  
 System.*out*.println**(*"Determining first "*** +***n*** + ***" primes."* )**;  
  
 ***printFirstNPrime*(*n*)**;  
  
  
  
 **}  
}**

**SAU scrisa cu WHILE**

**package** nrprim;  
  
**import** java.util.Scanner;  
  
**public class** Nrprim **{  
  
 public static void printFirstNPrime (int *n*) {  
 int *primesFound*** = **0**;  
 **int *i*** = **2**;  
 **while(*primesFound*** < ***n*) {  
 int *divisors*** = **0**;  
*// System.out.println("Testam n " +i);  
// for (int j = 2; j < i; j++) {  
// if (i % j == 0) {  
// divisors++;  
// }* **int *j*** = **2**;  
 **while ( *j*** <= **(*i***/**2)** && ***divisors*** == **0 ) {  
 if(*i*** % ***j*** == **0 ) {  
 *divisors***++;  
 **}  
 *j***++;  
  
 **}***// System.out.println("divisors " + divisors);* **if (*divisors*** == **0) {** System.*out*.println**(*"Numarul "*** + ***i*** + ***" este prim"*)**;  
 ***primesFound***++;  
 **}  
  
 *i***++;  
 **}***// System.out.println(" testing " +i);* **}  
  
  
 public static void main(**String**[] *args*) {** Scanner ***scanner*** = **new** Scanner**(**System.*in***)**;  
 System.*out*.println**(*"Please enter n: "*)**;  
 **int *n*** = ***scanner***.nextInt**()**;  
 System.*out*.println**(*"Determining first "*** +***n*** + ***" primes."* )**;  
  
 ***printFirstNPrime*(*n*)**;  
  
  
  
 **}  
}**