

Literals & Variables

Agenda:

Literals & Types of literals

Variables

Creating a variables

Rules for defining a variables

Data-types

Scanner Class → User Input

Comparison Operators → Hackerrank Assig.

What is Literals?

Fixed values that we can use directly in our program.

Eg: `5`, `-12.3`, `'c'`, `"Krishna"`

Types Of Literals?

Integer: Numer value without any decimals

Eg: `5`, `-339`, `11167896`.

Floating point No. → No. that contain decimals values

Eg → `13.1`, `-10.2`, `66.265`

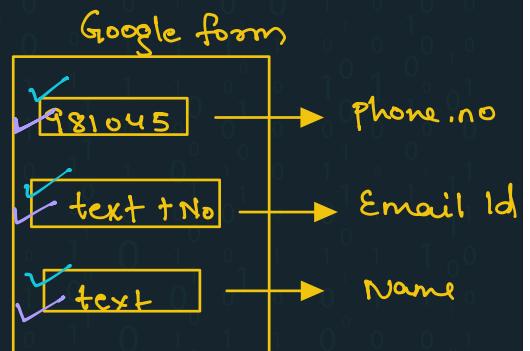
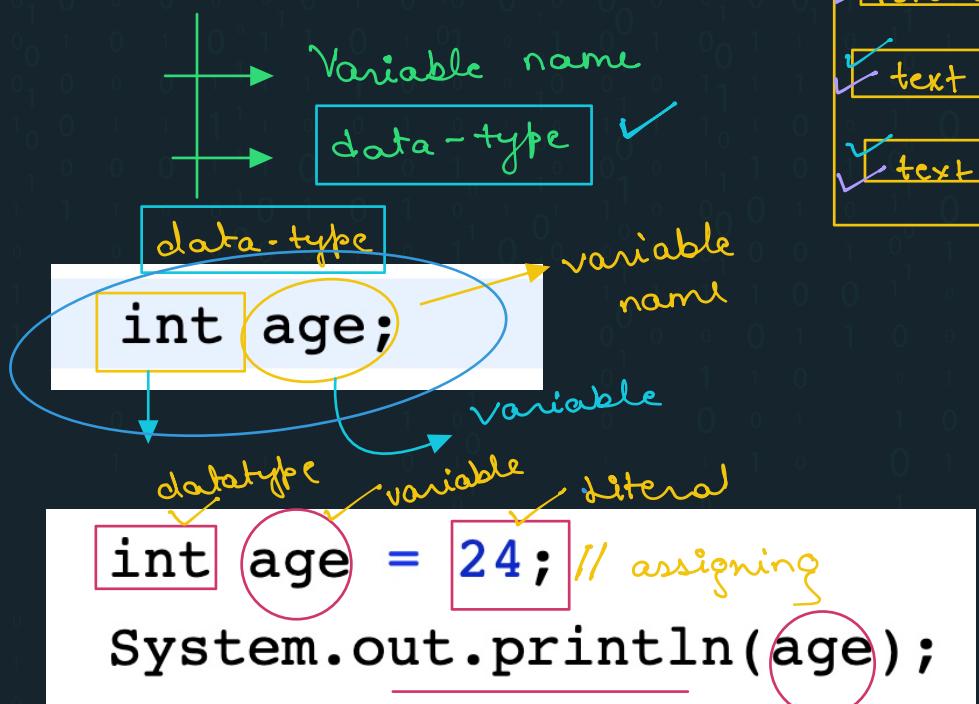
Characters → Character enclosed in `' '`

Eg → `'g'`, `'C'`, `'k'`, `'#'`, `'$'`, `'@'`

Variables

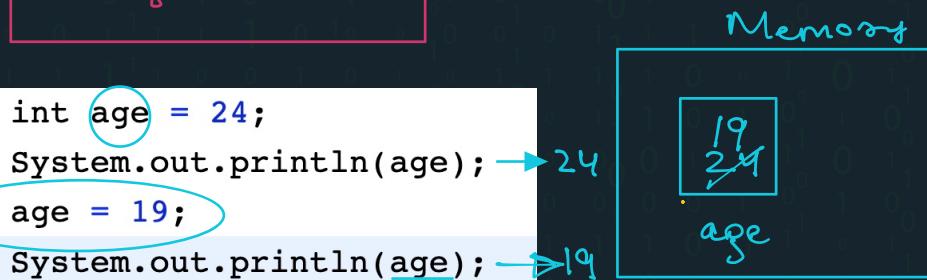
→ In programming, it is used to store data.
Later use this data in our program.

Creating a variables:



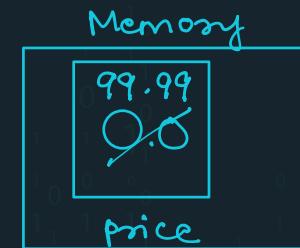
`System.out.println(age);`

```
int age = 24;
System.out.println(age); → 24
age = 19;
System.out.println(age); → 19
```



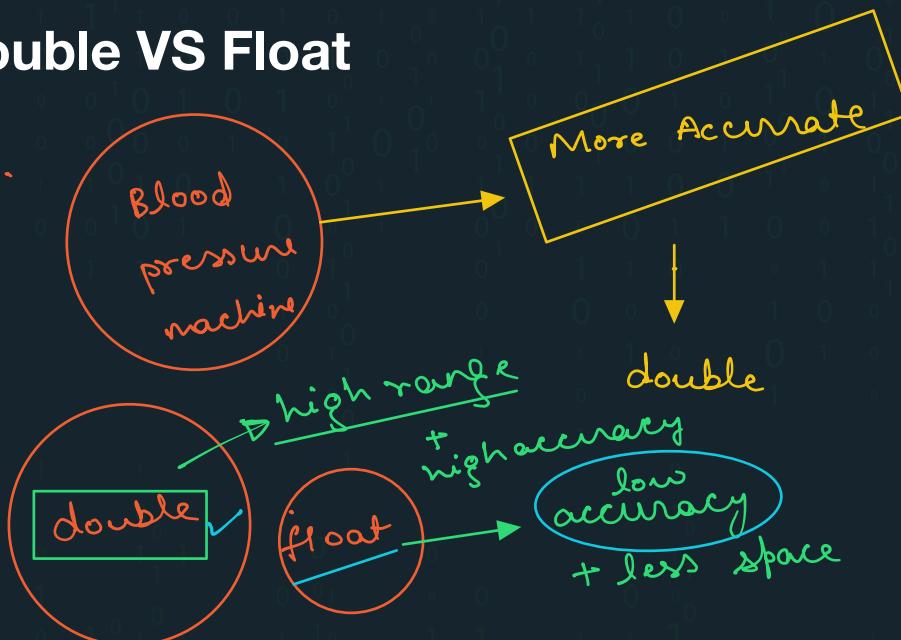
Decimal Value :

```
public static void main(String[] args) {
    double price = 99.99;
    System.out.println(price);
}
```



```
public static void main(String[] args) {
    float price = 22.91f;
    System.out.println(price);
}
```

Double VS Float



Rules for Naming a Variable

age, salary, price

→ Variable should contain alphabets, digits, \$, - (underscore)

→ Cannot start with a Number. → X No.

→ predefined keyword (X) → Java keyword

Eg : ① salary, double, hello, age21, age_21
 X X ✓ ✓ ✓
 - hello, ✓

• Camel Case → totalSalary

(Java)

• snake Case → total_salary

(python)

Data-Types:

→ int → Integer Value

→ double , float → decimal Value

→ boolean → T / F

→ char → character value

→ String → text → "Geekster"

Short , long

Integer value

[0 - 1 crore]

60

item wght.

[0 - 1000]

10kg

short

[0 - 1 Lakh]

60

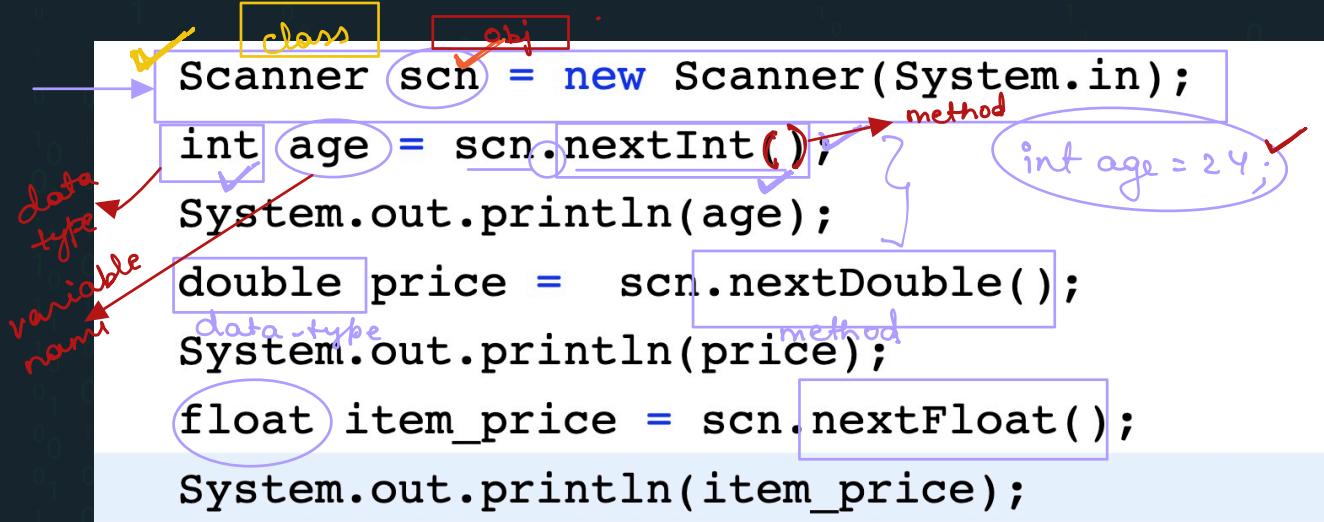
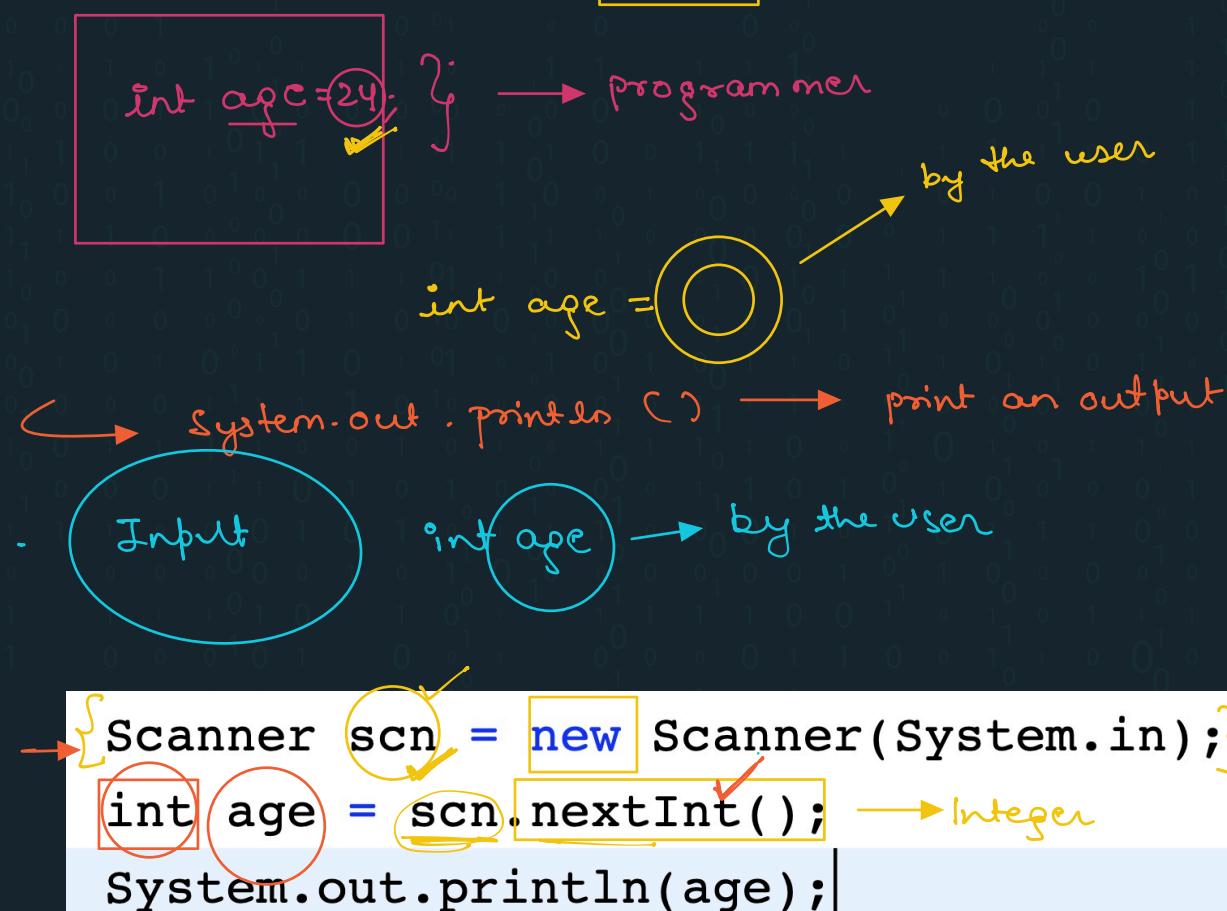
100kg

Int

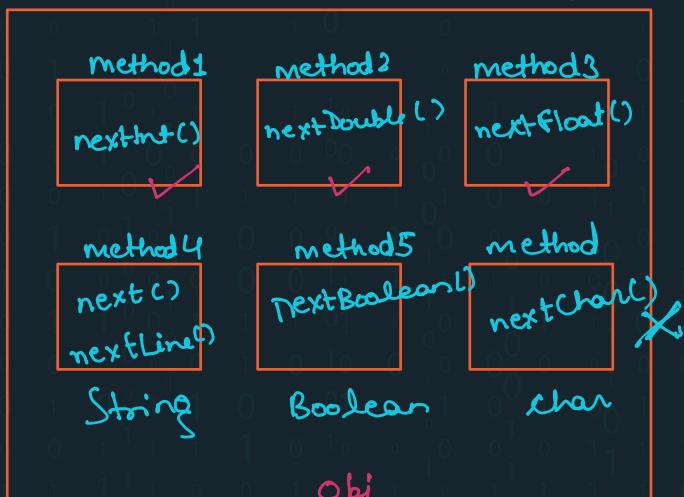
1000 kg

Long

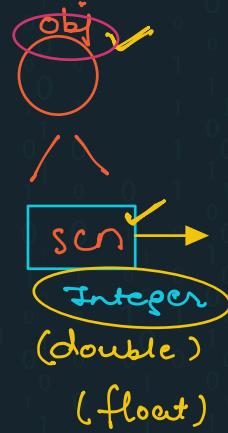
Scanner Class:



Scanner Class (University)

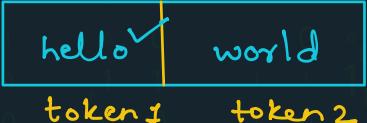


```
obj
Scanner scn = new Scanner (System.in)
int age = scn.nextInt();
double sal = scn.nextDouble()
float price = scn.nextFloat()
```

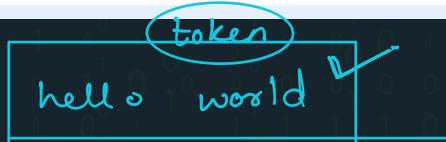


String Input:

```
Scanner scn = new Scanner(System.in);
String str = scn.next();
System.out.println(str); → hello
```



```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    String str = scn.nextLine(); method
    System.out.println(str); → hello World
```



nextBoolean:

True	False
------	-------

Boolean datatype

```
Scanner scn = new Scanner(System.in);
boolean result = scn.nextBoolean();
System.out.println(result);
```

Comparison Operator : [Boolean]

- less than (<) eg → $7 < 9 \rightarrow T$
 $9 < 3 \rightarrow F$
- greater than (>) $6 > 13 \rightarrow F$
 $9 > 2 \rightarrow T$
- less than or equal to (\leq) $6 \leq 6 \rightarrow T$
 $7 \leq 9 \rightarrow T$
- Greater than or equal to (\geq) $64 \geq 21 \rightarrow T$
 $32 \geq 99 \rightarrow F$
- Equal to ($=$) $6 == 7 \rightarrow F$
 $9 == (3 \times 3) \rightarrow T$
- Not Equal to (\neq)
 $15 \neq 15 \rightarrow F$
 $12 \neq (3 * 4) \rightarrow F$

Hacker-rank Challenges:

Sum and Difference of x and y

[Problem](#)
[Submissions](#)
[Leaderboard](#)
[Discussions](#)

You will be given two integers x and y . You have to print the sum of x and y in the first line, and the difference of x and y in the second line.

First integer input should be stored in x , Second integer input should be stored in y .

Input Format

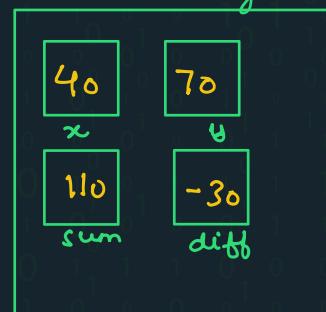
In the first line the value of x will be given and in the second line the value of y will be given.

```
int x = 40 } x+y
int y = 10 } x-y
```

```
Scanner scn = new Scanner (System.in);
int x = scn.nextInt();
int y = scn.nextInt();
int sum = x+y;
int diff = x-y;
print( sum );
print( diff );
```

```
Scanner scn = new Scanner(System.in);
int x = scn.nextInt(); → 40
int y = scn.nextInt(); → 70
int sum = x+y; → 110
int diff = x-y; → -30
System.out.println(sum); → 110
System.out.println(diff); → -30
```

Memozy



Area and Perimeter 5

Problem

Submissions

Leaderboard

Discussions

Take length and breadth of the rectangle as input. And print area of the rectangle in the first line and perimeter of the rectangle in the second line.

Input Format

In the first line, length of the rectangle is given as input. In the second line, breadth of the rectangle is given as input.

```

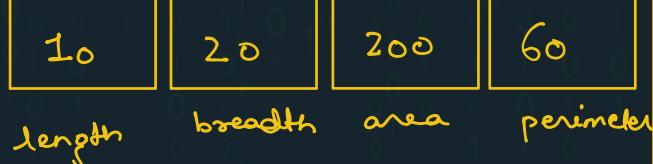
Scanner scn →
int length = scn.nextInt();
, breadth = ''
int area = [ length * breadth];
int peri = 2 * [ length + breadth];
print (area);
print (peri);

/* Enter your code here. Read input from System.in */
Scanner scn = new Scanner(System.in);
int length = scn.nextInt();
int breadth = scn.nextInt();
int area = length* breadth; 200
int perimeter = 2 * (length + breadth);
System.out.println(area); 2(10+20)=60
System.out.println(perimeter);

}

```

Memory



Fahrenheit and Celsius

Problem

Submissions

Leaderboard

Discussions

You will be given Fahrenheit as input that should be stored in a double variable and print your answer in Celsius of data-type double.

Input Format

In each test case, you will get Fahrenheit as input.

$$c = ((f - 32) * 5) / 9 \quad * \quad (5/9)$$

O [Quotient]

Scanner scn →

```
double f = scn.nextDouble();
double c = ((f - 32) * 5) / 9;
print(c);
```

```
/* Enter your code here. Read input from Scanner */
Scanner scn = new Scanner(System.in);
double f = scn.nextDouble();
double c = ((f - 32) * 5) / 9;
System.out.println(c);
```

Add Last Digits

Problem

Submissions

Leaderboard

Discussions

You will be given two numbers of int data-type as input, and you have to print the sum of their last digits as output.

Test Case 1:

Given Inputs: 2357 48986

$$\begin{array}{r} \text{int num1 = 2357 \% 10 = } 7 \\ \text{int num2 = 48986 \% 10 = } 6 \\ \hline \text{sum = } 13 \end{array}$$

Expected Output: 13

Explanation: The last digit of 2357 is 7 and the last digit of 48986 is 6, and the sum of these last digits is 13. Hence the output is 13.

Scanner scn.

```

int num1 = scn.nextInt();
,, num2 ;
int a = num1 % 10;
int b = num2 % 10
print(a+b);

public static void main(String[] args){
    /* Enter your code here. Read input from STDIN
    Scanner scn = new Scanner(System.in);
    int num1 = scn.nextInt();
    int num2 = scn.nextInt();

    int a = num1 % 10; → 23567 % 10 → 7
    int b = num2 % 10; → 96841 % 10 → 1
    System.out.println(a+b);
            7+1 → 8
}

```

