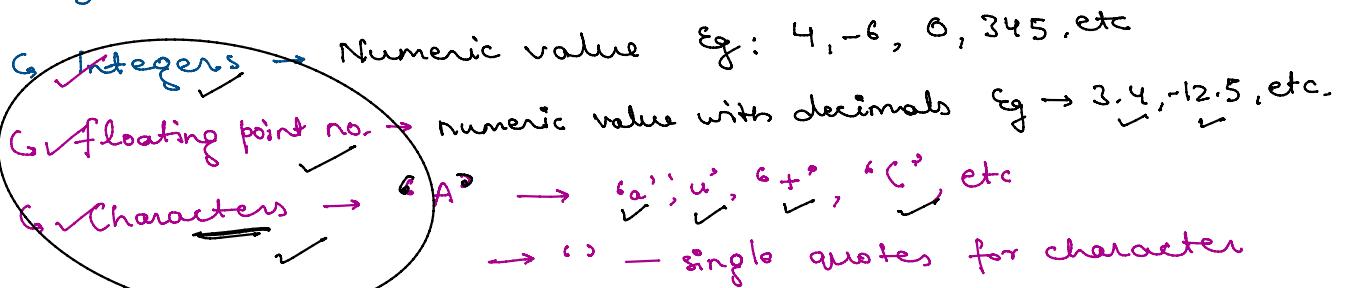


literals

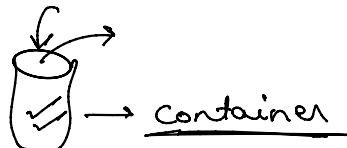
✓ 5, ✓ -12.5, ✓ 'c', etc

Types of literals



Variables

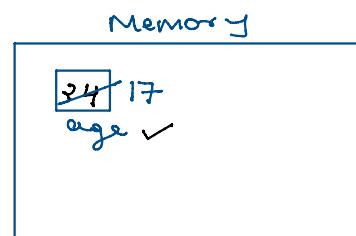
- variable name ✓
- data type ✓



public static void main(String[] args) {
 int age; ✓
 double salary; ✓
}

✓ int age; ✓ → declaration
✓ age = 24; ✓ → initialization

int age = 24;



✓ int age = 24; ✓

age = 17; ✓

string

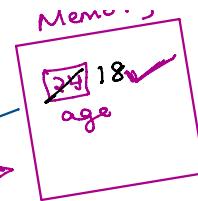
public static void main(String[] args) {
 int age; ✓



```

public static void main(String[] args) {
    int age; ✓
    age = 24; ✓
    System.out.println("age(before) " + age); ✓
    age = 18; ✓
    System.out.println("age(after) " + age); ✓

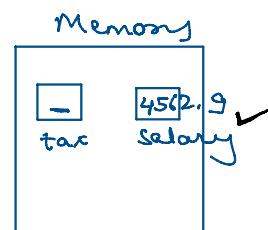
```



age(before) 24

age(after) 18 ✓

double tax 30
data type decimal values
salary = 4562.9;



Rules for naming a Variable

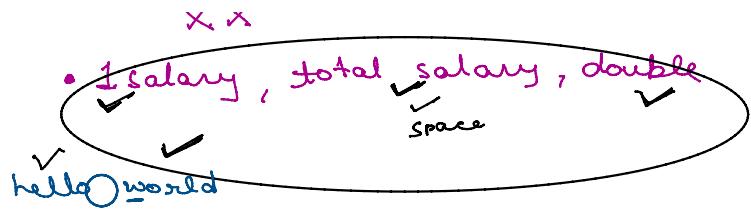
int age = 28; ✓
data type variables data literals

↳ Password → Capital letter,
Symbol, number,
Uppercase, lowercase,
Special character,
at least 8 char.
no more space

- alphabets, digits, \$, - (under-score)
- Can't start with number.
- no space
- pre-defined keyword: int, void, System, double, println
- salary, Salary1, total_salary, } • salary, total_salary, double

- salary, Salary1, total_salary, }
totalSalary, ts

firstName fn
✓ ✓



- camel case → helloWorld ; ↗
- snake case → helloWorld ; ↗

12) Store the value 235 in y variable of int data type and then print y+10

13) Store values 165, 84 in x and y variable of int data type and print x+y,
x-y, x*y, x/y.

14) Store values 20, 30, 40 in the variable x, y, z each of int data type and
print x+y-z. then print x.

15) Remove the last digit of a given number. Say 45983 ↗
division

16) Find the last digit of a given number. Say 45983 ↗
remainder

```
int x = 100;
System.out.println(x);

int y = 235 ;
```

```
System.out.println(y+ 10);
```

```
x = 165;
y = 84;
System.out.println(x+y);
System.out.println(x-y);
System.out.println(x*y);
System.out.println(x/y);
```

```
x = 20;
y = 30;
int z= 40;
System.out.println(x+y-z);
```

```
System.out.println(45983 / 10);
System.out.println(45983 % 10);
```

Data-Type

- Variable has type & size;
data type

int age;
↳ 4 bytes ;

Storage → bit

byte

Kilo byte

Mega byte

Giga byte

Tera byte

Peta byte

- int ✓
↳ integer ✓ → -2, 43 ✓

age = 24;

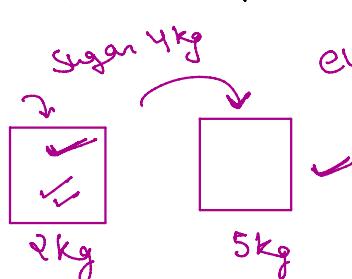
↳ 4 byte (32 bit) ✓

1 byte = 8 bit ;

↳ $[-2^{32}, 2^{32}-1]$ → $[-2147483648, 2147483647]$ ✓

140 km ~ 250 km

• long
→ $[-2^{61}, 2^{61}-1]$
8 byte



- float & double

- decimal numbers
- double → 8 bytes

precise

float → 4 bytes

double first = 64.33;

float second = 64.35f; | F ✓

- exponential number →

double factor = 22.44e6; |

22.44×10^6

- char → 2 bytes

`char alphabet = 'a';` double quotes ✗
`System.out.println(alphabet);` single quotes ✓

- boolean → 2 values → true
false

1 bit

Type	Used for	Size
int	integers ✓	usually 4 bytes ✓
double	real numbers	8 bytes
float	real numbers	4 bytes ✓
char	characters	1 byte ✓
boolean	true or false	1 bit of information

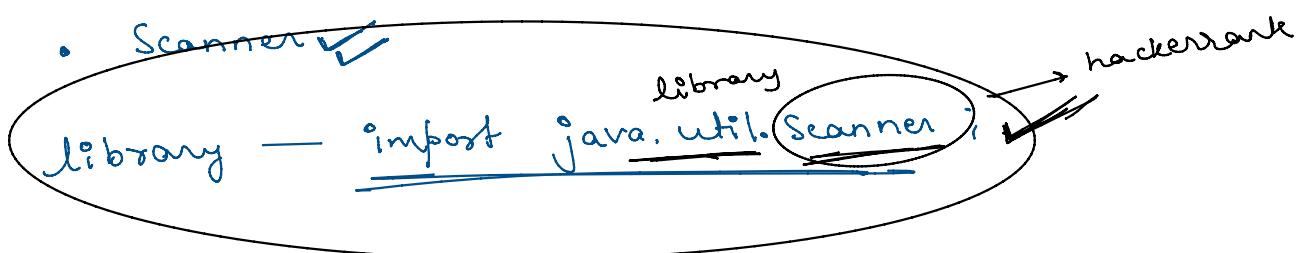
Q&A

243,677777983 ✓

- Input from User

`int age = 24;`

→ user ✓



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

// Create a scanner

✓ `Scanner input = new Scanner(System.in);`

variable

System.out.println("Enter a integer : ");

comment

// take int data

int data

krishna()

input.nextInt();

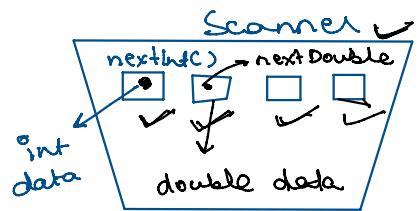
int data

nextInt()

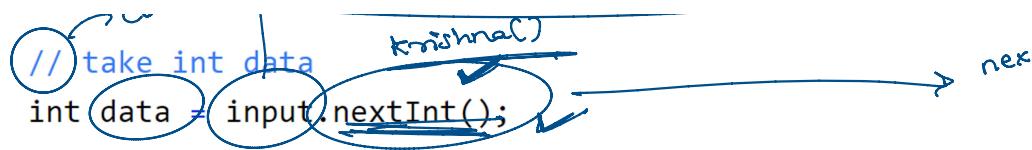
nextDouble()

double data

nextDouble()



next



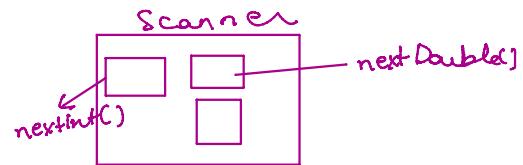
```
System.out.println("Input Data " + data);
```

```
public static void main(String[] args) {
    // Create a scanner

    Scanner input = new Scanner(System.in); ✓
    System.out.println("Enter a Number : ");

    // take double data
    double data = input.nextDouble(); ✓

    System.out.println("Input Data " + data);
}
```



`String` → text ✓ multiple char

word

multiple words ✓ text

↳ string

Homework Questions/Assignment Questions:

1) Print "Hello I am enjoying coding"

2) Print the below pattern:

```
Hello  
I  
am  
enjoying  
coding
```

3) Find the sum, product of 100,8,3

4) Find the difference between 100 and 40.

5) Print the below pattern

```
*****  
*****  
*****  
*****  
*****  
*****
```

6) Print the below pattern

```
* *  
* *  
* *  
* *  
* *  
****
```

7) Find the last digit of the number 987653.

8) Store values 15, 4 in m and n variable of int data type then

Print value of m+n in the first line,

Print value of m-n in the second line,

Print value of m*n in the second line.