

1. Scopes of variable
2. Array - 1D

SCOPE OF VARIABLE

1	main() {	1	main() {
2	int a;	2	int a = 12;
3	a = 24	3	if (a == 12) {
4	int b;	4	SOP(a)
5	b = 12;	5	int c = 1;
6	}	6	SOP(c)
		7	}
		8	}

Where can you use the variable

{ }

↓

Scope is defined
within braces

```

class Main {
    public static int sum(int a, int b){
        return a+b;
    }
    public static void main(String args[]) {
        int a=10,b=5;
        int x=100, y=200;
        System.out.println(sum(x,y));
    }
}

```

```

class Main {
    public static int sum(int a, int b){
        int x=20, y=30;
        return a+b;
    }
    public static void main(String args[]) {
        int a=10,b=5;
        int x=100, y=200;
        System.out.println(sum(x,y));
    }
}

```

15, 50, 300, Error

```

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15, 50, 300, Error

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class Main {
    public static int sum(int a, int b){
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        int a=10, b=5;
        int x=100, y=200;
        System.out.println(sum(x,y));
    }
}

```

15, 50, 300, Error

```

public class ScopeOfVariables {
    public static void main(String[] args) {
        int x = 10;
        int y = 20;
        {
            System.out.print(x + ", " + y);
        }
        {
            x = 15;
            System.out.print(" - " + x + ", " + y);
        }
        System.out.print(" - " + x + ", " + y);
    }
}

```

10, 20 - 15, 20 - 15, 20

```

public class VarScope {
    public static void main(String[] args) {
        int x = 10;
        {
            int y = 20;
            System.out.print(x + ", " + y);
        }
        {
            y = 10;
            x = 15;
            System.out.print(" - " + x + ", " + y);
        }
        System.out.print(" - " + x + ", " + y);
    }
}

```

10, 20

Error

```

public class LifeTime {
    public static void main(String[] args) {
        if (true) {
            int x = 10;
            System.out.println("Value of X = " + x);
            x++;
        }
        System.out.println("Value of X = " + x);
    }
}

```

Value of X = 10

Error

```

public class Scope {
    public static void main(String[] args) {
        int a = 0;
        {
            int b = 10;
            System.out.println("b = " + b);
            int c = b + a;
            System.out.println("c = " + b);
        }
        a = c + b;
        System.out.println("a = " + a);
    }
}

```

Error

Compile time v/s run time

Syntax issue

```

int x = 1;
int y = 0;
SOP(x/y);

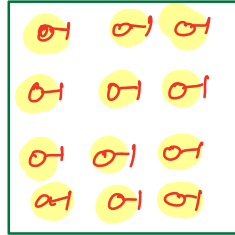
```

Error

Break 10:20

Arrays [Data Structure]

Data \Rightarrow Random, not useful
Info \Rightarrow Organised data, useful



Array \Rightarrow Organised collection of similar items

```
int m1, m2, m3, ... .., m463;
m1 = sc.nextInt();
m2 = sc.nextInt();
:
:
m463 = sc.nextInt();
avg = (m1 + m2 + .. + m463)
      463
```

SOP (ay)

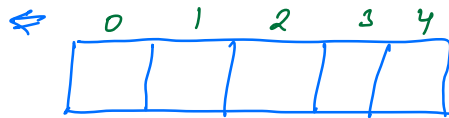
```
int runs[];  
runs = new int[463];
```

```
int run;  
run = 23;
```

```
int runs[] = new int[463];  
int[] runs = new int[463];
```

```
int A[] = new int[5];
```

indices
indexes



SOP(A[0])

A[0] = 23

SOP(run)

run = 23

```
int runs[] = new int[463];
```

```
for(int i=0; i<463; i++){
```

```
    runs[i] = sc.nextInt();
```

```
}
```

```
for(int i=0; i<463; i++){
```

```
    SOP("Runs in " + i + "th match  
    are " + runs[i]);
```

```
}
```

<https://www.interviewbit.com/snippet/49e5acb8ff4b61aed9a3/>