

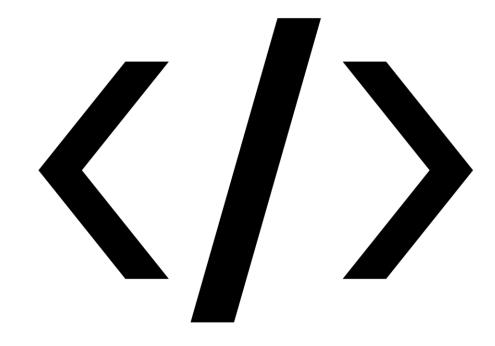
- 1. Definición
- 2. Características
- 3. Clasificación
- 4. Comunidad

Lenguajes de programación

Definición

1. Definición







Léxico Sintaxis Semántica



Léxico









Sintaxis

```
if (testScore >= 90) {
   grade = 'A';
}
```





Léxico Sintaxis Semántica



Semántica



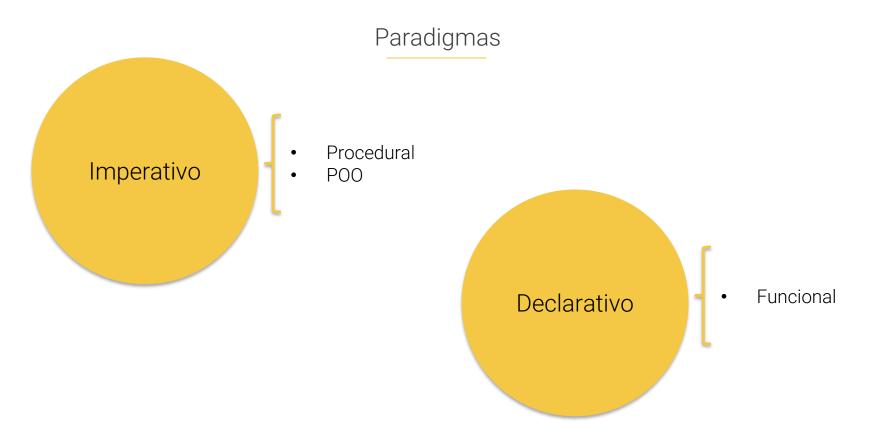
```
Animal animal = new Animal();
Fruit fruit = new Fruit();
System.out.println(animal+fruit);
```

Java 11 grammar











Paradigmas

Imperativo

```
public int factorial(int x) {
    var result = 1;
    while x > 1 {
        result *= x;
        x--;
    }
    return result;
}
```

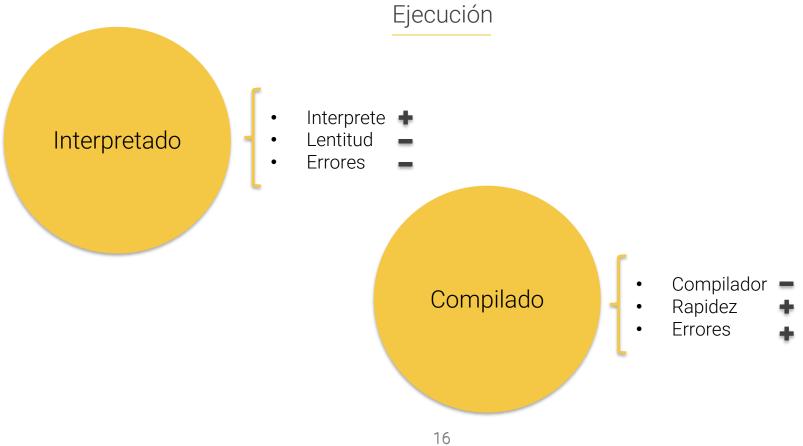
Declarativo

```
factorial 0 = 1
factorial n = n * factorial(n-1)
```











Paradigmas Ejecución Tipado



Tipado







Tipado

Estático

```
int x = 3;
x = "Hello, world!"; // Muestra error
```

Dinámico

```
var x = 3;
x = "Hello, world!";
println(x); // Muestra "Hello, world!"
```



Tipado

Fuerte

```
int x = 3;
long y = 4;
println(x + y); // Muestra error
```

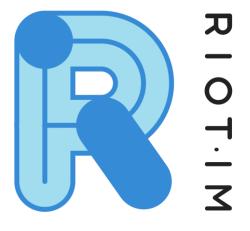
Débil

```
var x = 3;
x = "Hello, world!";
println(x); // Muestra "Hello, world!"
```

Kotlin > Java > Javascript

Comunidad













"There is no programming language – no matter how structured – that will prevent programmers from making bad programs."

Larry Flon, "Fundamental Structures of Computer Science"

