

Operator	Meaning
??	If-null operator
??=	Null-aware assignment operator
?.	Null-aware access & method invocation operator
!	Null assertion operator
?..	Null-aware cascade operator
?[]	Null-aware index operator
...?	Null-aware spread operator

If-null operator

In Flutter, the null-aware operators are used to handle situations where a variable might be null. There are two main null-aware operators: the null-aware access (**?.**) and the null-aware assignment (**??**).

```
var fullName = name ?? 'John Doe'
```

Null-aware assignment operator

The null-aware assignment operator (**??=**) in programming languages like Dart and some others provides a concise way to assign a value to a variable only if the variable is currently null. If the variable is not null, the assignment operation is skipped, and the existing value of the variable remains unchanged

```
name ??= 'John Doe';
```

- **NullAware Access & method Invocation operator**

The null-aware access operator is used to invoke a method or access a property of an object only if the object is non-null.

- If the object is null, the entire expression evaluates to null instead of causing a null reference error.

```
String message = name?.toUpperCase() ?? 'Default Message';
```

Null assertion Operator

The null assertion operator (!) in Dart is used to assert to the Dart type system that an expression with a nullable type is non-null. It essentially tells the compiler to treat a nullable expression as non-nullable, even if it might result in a runtime null reference error.

```
String greeting = 'Hello, ' + nullableName!;
```

Nu

The null-aware cascade operator (?.) in Dart is a convenient tool for chaining multiple method calls or property accesses on an object while handling null gracefully. It allows you to perform a sequence of operations on an object, even if that object is null, without causing null reference errors.

```
myObject?.method1()?.method2()?.property1;
```

Null Aware index operator

- When accessing elements in a list or values in a map, you can use the ?? operator to provide a default value if the index or key is not present or if it evaluates to null.
- This helps prevent null reference errors when working with collections.

```
String value = data?[key] ?? defaultValue;
```

Null Aware spread operator

The spread operator (...) is used to insert all the elements of a list or all the key-value pairs of a map into another list or map.

```
List<int> destinationList = [...?sourceList];
```