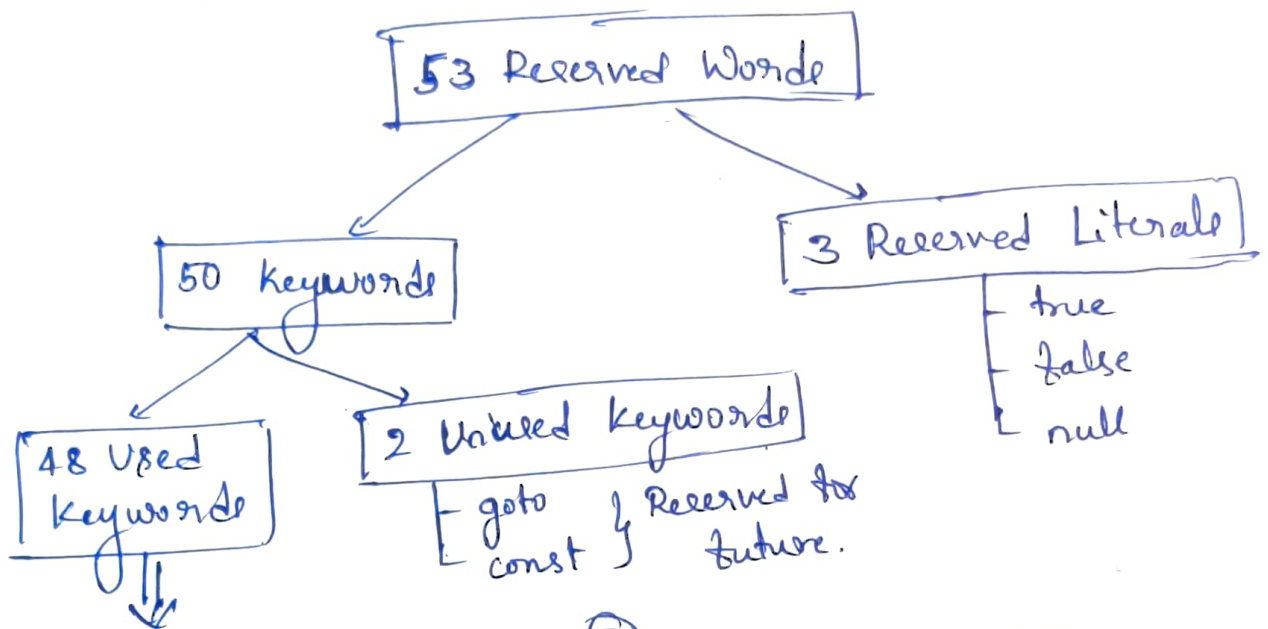


Reserved Words:

In Java, some identifiers are reserved to represent specific functionality @ meaning; such reserved identifiers are called reserved words.



1) Access Modifiers (4) → ③

* public * private * protected * default
(Not actually a keyword for default access, but a modifier keyword in default methods of interfaces)

2) Class, Object & Interface Declarations (8) → ⑦

* class * interface * enum * abstract * final
* implements * extends * record → (added in Java 14
as a preview, permanent in Java 16 — still a keyword)

3) Method, Variable & Flow Modifiers (11) → ⑥

* static * volatile * synchronized * transient
* native * strictfp * default (overlaps with Access modifiers)
* sealed (Java 17) * non-sealed (Java 17)
* var (not a keyword in Java 10+, but a reserved type name → excluded in count of 50 keywords)
* permits (Java 17)

④ Flow Control (12) → ①⑦ ~~①⑧~~

* if * else * switch * case * default
* for * while * do * break * continue
* return * yield (added in Java 14 for switch expressions).

⑤ Exception Handling (6)

* try * catch * finally * throw * throws
* assert.

⑥ Primitive Data Types: ⑧

* byte * short * int * long * float
* double * char * boolean.

⑦ Miscellaneous (7)

* package * import * ~~instanceof~~
* super * this * new * void

Unused Keywords

- goto ⇒ Caused several problems in older programming languages, so banned in Java.
- Const ⇒ the final keyword is used instead.

Enum

* The enum keyword (introduced in Java 5) is used to define a group of named constants. Enums are a special type that can hold a fixed set of values, making code safer & more readable.

Eg: enum Day {
MONDAY, TUESDAY, WEDNESDAY, THURSDAY,
FRIDAY, SATURDAY, SUNDAY;
}

```
public class EnumExample2
```

```
    public void m() {
```

```
        Day today = Day.Monday;
```

```
        s.o.p("Today is: " + today);
```

```
        s.o.p("All days of the week:");
```

```
        for (Day d: Day.values()) {  
            s.o.p(d);  
        }
```

↓

```
        Day[] days = Day.values();  
        for (int i=0; i < days.length; i++) {  
            s.o.p(days[i]);  
        }
```

Key Facts about Java Reserved Words:

① All lowercase by Design

↳ Every Java reserved word is written in lower case letters.

② Keywords added over time

↳ Java has introduced new keywords in specific versions:

* `strictfp` — Java 1.2

* `assert` — Java 1.4

* `enum` — Java 1.5

③ No keyword Deletion

↳ Java never removes keywords. Memory cleanup is handled by the garbage collector, so there's no need for a keyword like delete.

④ Case Sensitive Matters:

↳ Java keywords are case-sensitive & must match exactly:

- * instanceof → not instanceOf
- * strictfp → not strictFp
- * const → not Constant

⑤ Exact spelling is required

↳ Mix spelling make the word a normal identifier, not a keyword:

- * synchronized → not synchronize
- * extends → not extend
- * implements → not implement
- * import → not importz
- * int → not Int