Identifier & Reserved Keywords:

Identifiers:

A name in java program is called identifier which can be used for identification purpose. It can be method name or variable name or class name or label name.

```
class test
{

public static void main(String args[])
{
int x = 10;
}


}
```

test, main, String, args, x => the identifiers

test = class name   main = method name String = String is predefined class name

args = name of array   x = name of variable

Rules For Defining Java Identifiers:

the only allowed characters in java identifiers are a-z, A-Z, 0-9, $, _. If you are using any other character we will get compile time error.

identifiers can't starts with digits like(0-9).   Ex: 123aks -> invalid one

we can differentiate with respect to case. Java identifiers are case-sensitive of course java language itself treated as case-sensitive programming language.

EX: int num = 10;   int Num = 10; int NUM = 10; all are different

there is no length limit for identifiers but it is not recommended to take too lengthy identifiers.

we can't use reserved word as identifiers.

Ex: int x = 10; => correct   int if = 10; => incorrect

all predefine java class names and interface names are valid to use as a identifiers but it is not recommended to take. Because it reduces readability and create confusion.

```
class test
{

public static void main(String args[])
{
int String = 10;
System.out.println(String);

int Runnable = 55;
System.out.println(Runnable);


}


}
```

```
C:\Users\Atish kumar sahu\desktop>javac test.java

C:\Users\Atish kumar sahu\desktop>java test
10
55

C:\Users\Atish kumar sahu\desktop>
```
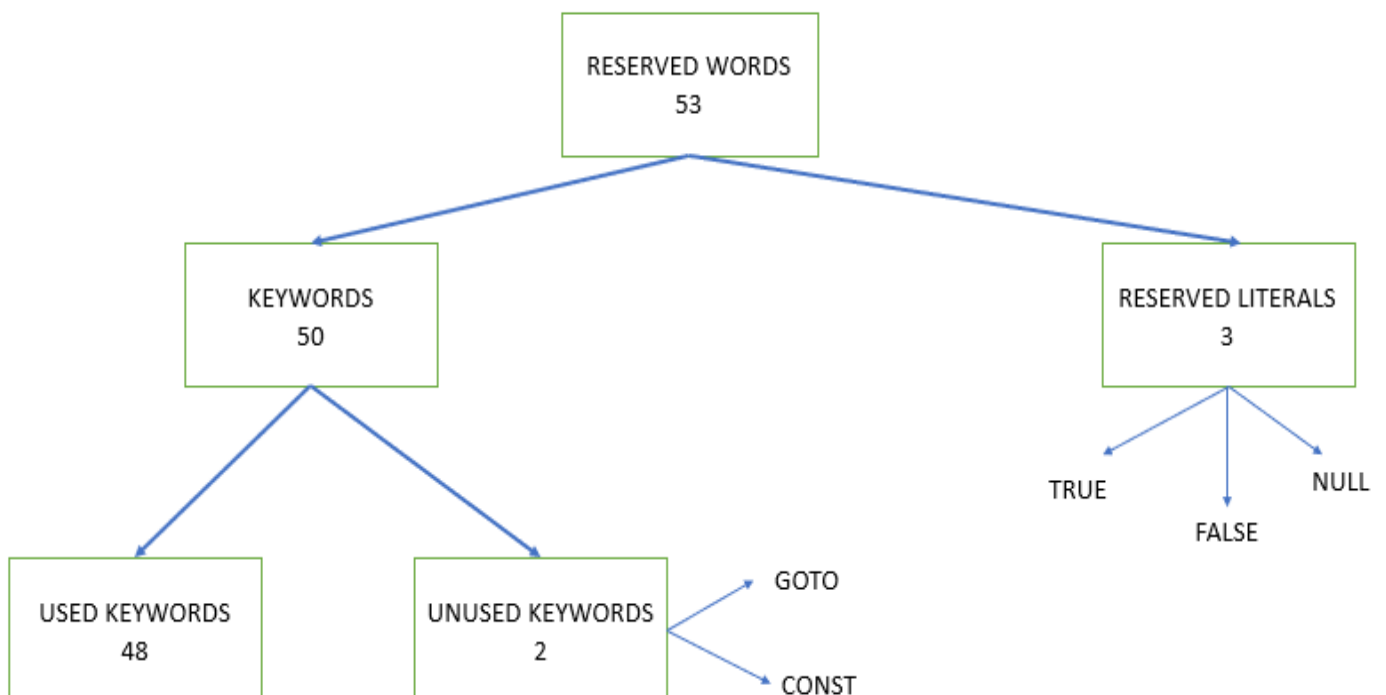
Reserved Words:

In java some words are reserved to represent the meaning of functionality such type of words are called reserved keywords.

KEYWORDS FOR DATA TYPES:

byte , short, int, long, float, double, boolean, char

KEYWORDS FOR FLOW CONTROL:

If, else, switch, case, default, while, do, for, break, continue, return

KEYWORDS FOR MODDIFIERS:

public, private, protected, static, final, abstract, synchronized, native, strictfp(1.2), transient, volatile

KEYWORDS FOR EXCEPTION HANDLING:

try, catch, finally, throw, throws, assert(1.4),

KEYWORDS FOR CLASS RELATED:

class, interface, extends, implements, package, import

KEYWORDS FOR OBJECT RELATED:

new, instanceof, super, this

RETURN TYPE KEYWORD: void

In java return type is mandatory if a method won't return anything then we have to declare that method with void return type. But in C language return type is optional and default return type is int.

UNUSED KEYWORDS: goto, const

usage of goto create several problems in old languages and hence sun microsystem people banned this keyword in java. use final instead of const. goto and const are unused keywords and if we are trying to use we will get compile time error.

RESERVED LITERALS: true, false, null

true and false values for boolean data type. null is default for object reference.

enum(1.5) KEYWORD:

we can use enum to define a group of named constants.

NOTE: ALL 53 RESERVED WORDS IN JAVA CONTAINS ONLY LOWER CASE ALPHABETS SYMBOLS. IN JAVA WE HAVE ONLY "NEW" KEYWORD AND THERE IS NO DELETE KEYWORD IN JAVA, BECAUSE DESTRUCTION OF USELESS OBJECTS IS THE RESPONSIBILITY OF GARBAGE COLLECTOR. THE FOLLOWING ARE NEW KEYWORDS IN JAVA "assert", "strictfp", "enum".