Keywords in Java(Detailed Study)

Some words which stand meaningful to the compiler are called Keywords in Java. Keywords are alternative terms of Reserved Words. For Example, when you say *apple* then you mean a *red colour fruit* and not a *black coloured coffee* .

Similarly Keywords or Reserved Words are like *apples* which mean that some words convey specific meaning to the compiler.

As of JDK 11, there are 61 Keywords. These keywords each have different meanings for the compiler stored in them. Let's now understand each of them carefully and examine it.

Primitive Datatypes.

Datatypes which have a fixed range and size are called Primitive Datatypes. These are the most fundamental types and are non-instantiable. This means that you cannot instantiate them. They are used for efficiency purposes. **All Primitive types are Keywords by default**

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

Control Flow and Execution.

Flow of control of a program is necessary for a program. There are 11 keywords which are important from Control Flow point of view and tell the compiler which Construct (Sequential, Selective and Repititive) you are using.

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

Access Specifiers and Modifiers

Something that modifies the code flow and provide some *unique* information to the compiler about a specific element of the Java Program. They are just added to change the meaning of the definition. These words are modifiers in Java. Similarly, Access Specifiers are reserved words which

restrict the scope of access of an element of a program to the other parts and portions of programs.

public, private, default, protected

native, transient, volatile, synchronized, static, void, abstract, strictfp, etc.

Exception Handling.

Sometimes, your code may give some unpredictable error at Runtime causing an alter in the flow control of your program. For example, if there are two *love-birds* who love each other and one day suddenly another person tries to propose your *love-bird*, then an Exception may occur which might break your *relationship with your love-bird* . These thing needs to be taken care of from the very start. Similarly in Java, if something unprecedented occurs in your code which results in ungraceful results, these stuffs are handled by dealing with Exceptions.

try, catch, finally, throw, throws, assert

Object Relations.

Some keywords are used for object-related purposes. These keywords are basically related to perform functioning on Objects with Java. Those keywords are : -

new, instanceof, this, super

Class Relations.

Some keywords are explicitly meant for usage in classes, interfaces, packages, etc. Those are as follows: -

class, extends, interface, implements, package, import

Reserved Literals.

There are some constant values used by compiler. They are reserved as keywords by the compiler : -

true, false, null

Some keywords are introduced in and after JDK 9 and above. For example : **yield, uses, exports, opens, open, sealed, module**, etc.

This is the complete study of Keywords. Some keywords are left and are not included here. Those are either newly introduced or are out of scope of syllabus. Good Nights!! Have Fun with Keywords whole night.😂