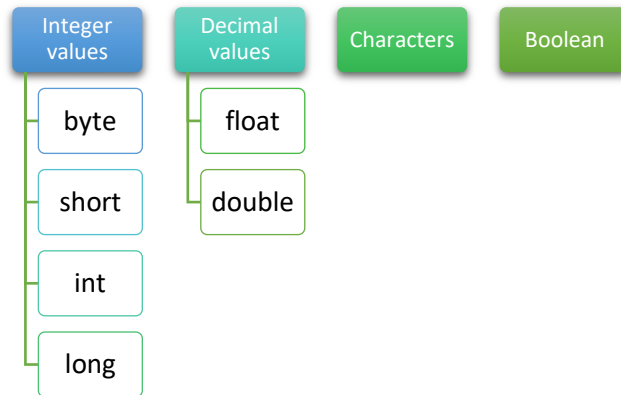


## JAVA primitive data type

Primitive data types in Java are elemental data type that store only one data, for example, an integer number or a char or decimal number, etc. Below is a simple list of primitive data type for Java:



The primitive data types don't need invocation to be created and used and don't have methods.

## JAVA Object data type

The object data types in Java are composed of a set of variables and methods. They need invocation to be created and used. Exist object data types of java, for example, String, System Scanner and others, but too objects defined by the programmer.

### Equals & '=='

'==' are used when we want to compare two values stored in primitive variables, instead Equals help us to compare two objects.

### Stack & Heap

The *Stack* memory, its used to store local variables, reference variable, parameters, return values and partial results.

The *Heap* memory stores classes instances (objects) and their instance variables. To understand how it work, check below:

```
int integerAttrib;
String stringAttrib;

public void setIntegerAttrib (int x) {
    integerAttrib = x;
}
public void setStringAttrib(String s) {
    atributoCadena = s;
}
public static void main (String[] args){
    int localInteger = 5;
    String localString = "attrib";
}
```

```
StackAndHeap e = new StackAndHeap();  
e.setIntegerAttrib (localInteger);  
e.setStringAttrib (localString);  
}
```

Source: Java Hispano

- Start execution with the main method.
- The variable localInteger is declared.
- Stack stores localInteger variable and their value.
- A variable of reference type is declared and initialized called localString.
- The variable is created in the Stack and the object is created in the heap.
- The variable localString points to the String Pool object to the Heap memory.
- The constructor method StackAndHeap is called. The constructor creates in the Heap memory the space of the object and their attributes. A reference variable that points to Heap is created in the Stack.
- The setIntegerAttrib() is called with the localInteger parameter.
- The method variable x receives the localInteger value.
- The value of x is assigned to the integerAttrib variable.
- The setStringAttrib() is called with the localString parameter.
- The method variable s receives the localString value.
- The value of s is assigned to the stringAttrib variable.