* **Boilerplate code**

|  |
| --- |
| public class JavaBasics {  public static void main(String args []) {  System.out.print("Hello Sheetal!");  }  } |

* **Literals** are those values that doesn’t changes

i.e., any number: 1,2,3, 4... or 'a', 'b', 'c'... or '@','\*'

* **Variables** are those whose values varies i.e., int a=10; etc.
* Names of variables & classes and functions etc. are **Identifiers**.

i.e., a, b, class, main, println…

* **Data types**:

|  |  |
| --- | --- |
| **Primitive (**Already Exist) | **Non-Primitive (**User Created) |
| * + - Byte     - Short     - Char     - Boolean     - Int     - Long     - Float     - Double | * + - String     - Array     - Class     - Object     - Interface |

* Java, C++, Python are **typed** languages (Where one has to define the type of data input), Whereas JS is not.
* Size of **Data types:**

|  |  |
| --- | --- |
| **Data types** | **Size** |
| * Byte * Short * Char * Boolean * Int * Long * Float * Double | * 1 byte [-128 to 127] * 2 bytes * 2 bytes [‘a’ to ‘z’, ‘A’-’Z’, ‘@’...] * 1 byte [True or False] * 4 bytes [-2B-2B] * 8 bytes * 4 bytes * 8 bytes |

* **Comments** in Java is added by typing ‘//’ or ‘/\*…. \*/’ (Multiline comment).
* **Input** in Java

|  |
| --- |
| * next * nextLine * nextInt * nextByte * nextFloat * nextDouble * nextBoolean * nextShort * nextLong |

* **Type Conversion**  
  also knows as widening conversion & Implicit conversion.  
  Conversion happens when:  
  a) Type compatible  
  b) Destination type > source type  
    
  float number = sy.nextInt();

byte>>short>>int>>float>>long>>double

conversion from int -> float isn't possible

whereas from float-> int is possible

* **Type Casting**  
  (Also called narrowing conversion & explicit conversion) is forcefully conversion irrespective of lossy conversion.