

# Variables - 1

- An identifier for memory address that holds a value
- java is static and strongly typed language
  - data type is defined at compiled time
  - for each data type we have limit or range of values that can be assigned to it
- Naming rules : -
  - case sensitive
  - can contain unicode letters and digits
  - can start with \$, \_ , letter (not digit)
  - can not be java reserved words
  - camel case or snake case
  - constants should be CAPITAL LETTERS
- Types
  1. Primitive types
  2. Reference, non-primitive types
- Default values of primitive data types are assigned to class member variables only.
- For long variable add L after initialisation
- For float variable add f after initialisation
- For double variable add d after initialisation
- If particular about decimal use BigDecimal, no float nor double
- Boolean default value is false
- Lower to higher - automatic conversion / widening / implicit conversion
- Higher to lower - down casting / explicit type conversion (if larger variable is down casted will loop thorough smaller data type values)