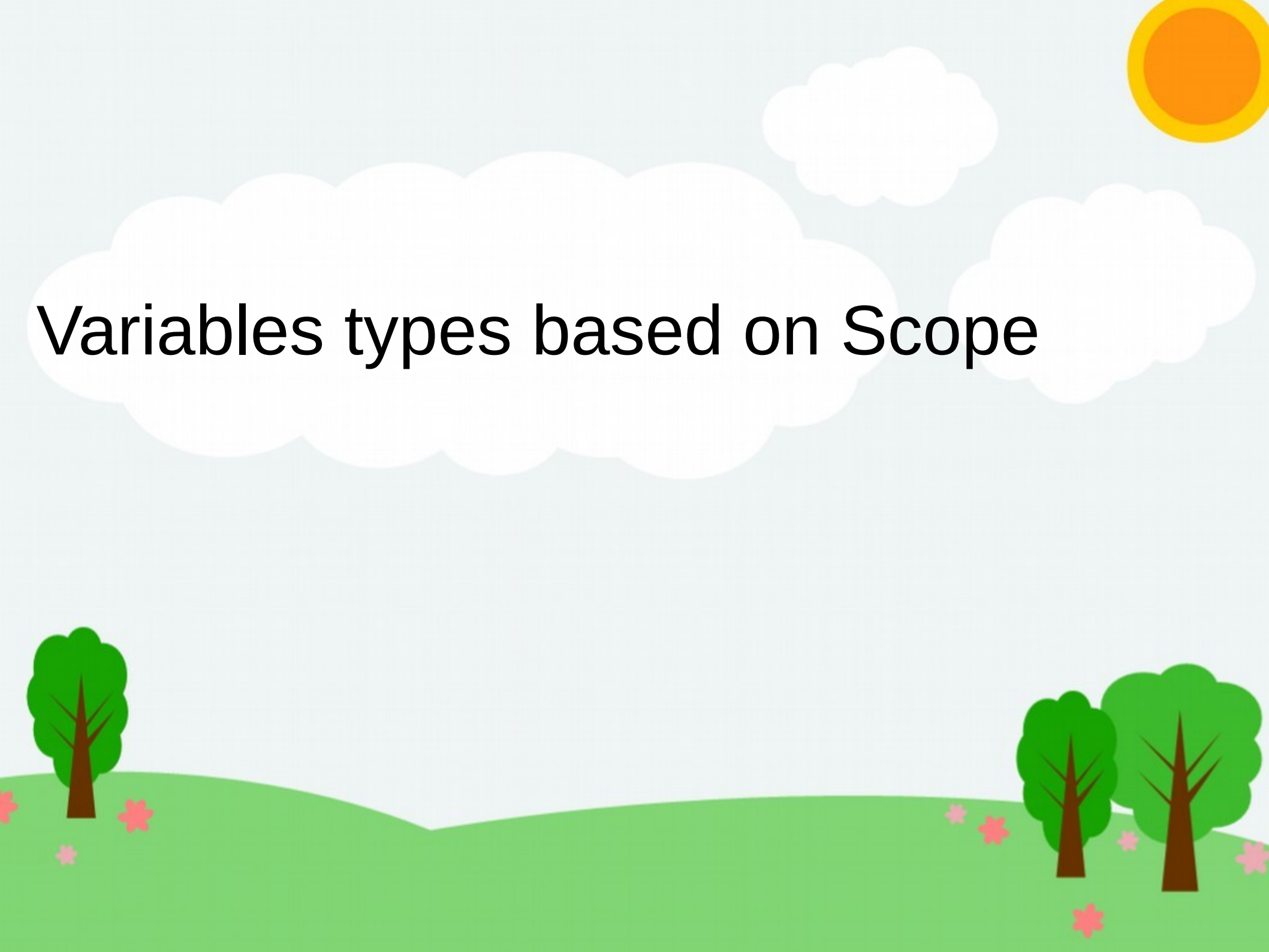
Variables types based on Scope



- Local
- Instance
- Class (static)

Local variables

- Defined within a block or method or constructor.
- Exists only for the lifetime of method or block
- Scope exists only within the block
- Initialization is mandatory before using it.

Instance variables

- Declared in a class outside of any method, block or constructor.
- Non-static variables
- Created and destroyed when objects are created and destroyed i.e. when objects lifetime ends, these variables are destroyed.
- Initialization not mandatory (default for int is 0)
- Access specifiers are used with instance variables

Static Variables

- Similar to instance variables but these are declared using static keyword within a class and outside any block, method or constructor.(class variables)
- Only single copy of static variable is permitted per class and this copy is shared among all instances and stored in fixed Memory location associated with class.
- Number of objects created does not matter.
- Lifetime of Static variable is equal to execution time of program.
- Initialization not necessary, default val =0
- Access possible as instance variable (through an object)
- If we access without class name, compiler auto appends classname.