**Variables:**

Variables are value holders. To declare a value the syntax is

data\_type variable\_name = value;

int a = 9;

char c1 = ‘c’

Example:

**package** FPPackage;

**public** **class** variablesex {

**public** **static** **void** main(String[] args) {

**int** a = 10;

**int** b = 20;

**char** c1 = 'j';

System.***out***.println("a value is "+a);

System.***out***.println("b value is "+b);

System.***out***.println("C1 is "+c1);

**int** c = a \* b;

System.***out***.println("c value is "+c);

}

}

**Different Types of Variables:**

1. Class variable (Static fields) - Class variables are variables declared within the class body, outside of any methods or blocks, and declared with 'static' keyword.   
Class variables have the longest scope. They are created when the class is loaded, and remain in memory as long as the class remains loaded in JVM.  
  
2. Instance variables (Non-static fields) - Instance variable are variables declared within the class body, outside of any method or block, and declared without 'static' keyword.   
Instance variables have the second highest scope. Instance variables are created when a new class instance is created, and live until the instance is removed from memory.  
  
3. Local Variables - Local variables are variables declared within a method body. They live only as long as the method in which it is declared remains on the stack.  
  
4. Block variables - Block variables are variables declared within a block such as an init block or within a for loop. They live only during the execution of the block and are the shortest living variables.

Example:

**public** **class** VariablesExample {

**static** **int** *c* = 6; //Class Variable

**int** d = 8; //Instance Variable

**public** **static** **void** main(String[] args) {

**int** a = 5; //Local Variable

**int** b = a \* 5; //Local Variable

System.***out***.println("a value is "+a);

System.***out***.println("b value is "+b);

**for**(**int** i = 0; i<4; i++) {

**int** j = 2; //Block Variable

System.***out***.println(a\*j);

}

}

}