



Differences Between process and Thread in Java

- 1) A process is an executing program whereas the thread is a small part of a process.
- 2) Each process has its own address space whereas the threads of the same process share the address space of that process.
- 3) In process based multitasking, more than two processes can run at the same time whereas in thread-based multitasking, more than two threads can run at the same time.
- 4) Inter-process communication between two processes is complex than inter-thread communication.
- 5) Context switching between two processes is expensive and limited as compared to context switching between two threads.
- 6) A process is also called the heavyweight task whereas, the thread is called lightweight task.
- 7) Multitasking over a process is not under the control of Java whereas, the multitasking over multithreading is under the control of Java.
- 8) Components contained by process are its own address space, global variables, signal handlers, open files, child processes, accounting information. On the other hand, a thread contains its own register information, stack, program counter.