OS

**States of a Thread**

1. **New/Ready:** this depict a thread instance is just created.
2. **Runnable:** after **start()** called, thread will be treated as runnable
3. **Non-Runnable/Blocked:** thread is alive but waiting or sleeping [**sleep()/wait()**]
4. **Terminated:**  thread has completed the execution and it is not alive. [**run() exits**]

**Thread Priority**

It is used to decide when to switch from one thread to another [called as Context Switch].

Multithreading is introducing Asynchronous behaviour to our program, there must be a way to enforce synchronicity, as per need. Synchronization is also built-in in java.

**The main thread**

When a java program starts, main thread starts running immediately.

It can be controlled using Thread Object, using ***currentThread()*** method.

**How can we create a Thread in JAVA**

1. Extend Thread class
2. Implement Runnable interface

**Thread class and Runnable interface methods**

**getName() join() getPriority() isAlive() sleep() run() start()**

public void run() {….}

**Priority of Thread**

On the scale 1 to 10 the priorities can be given to threads. By default 5.

MIN\_PRIORITY= 1 NORM\_PRIORITY = 5 MAX\_PRIORITY= 10

Start()

resume()/

nitify()/ stop() or

notifyAll() sleep() / run() method exits

wait()/ suspend()