

Course Name: A Level (2nd Sem)

Topic : Multithreading in Java

Subject: JAVA

Date: 27-04-20

Some other methods of Thread class:

public String getName()→is used to return the name of a thread.

public void setName(String name)→is used to change the name of a thread.

public long getId()→is used to return the id of a thread.

Thread.currentThread()→method returns a reference to the currently executing output thread object.

Example:

```
public class JT1 extends Thread{
    public void run(){
        for(int i=1;i<=5;i++){
            try{
                Thread.sleep(500);
            }catch(Exception e){
                System.out.println(e);
            }
            System.out.println("Running thread
is"+Thread.currentThread().getName()+" : "+i);
        }
    }
    Public static void main(String args[]){
        JT1 t1 = new JT1();
        JT1 t2 = new JT1();
        JT1 t3 = new JT1();
        t1.setName("Java on NIELIT ");
        System.out.println("id of t1:"+t1.getId());
        System.out.println("id of t2:"+t2.getId());
        System.out.println("id of t3:"+t3.getId());
        t1.start();
        try{
            t1.join(1500);
        }catch(Exception e){
            System.out.println(e);
        }
        t2.start();
        t3.start();
    }
}
```

Priority of a Thread (Thread Priority):

Each thread has a priority. Priorities are represented by a number between 1 and 10. In most cases, thread scheduler schedules the threads according to their priority (known as preemptive scheduling). But it is not guaranteed because it depends on JVM specification that which scheduling it chooses.

3 constants defined in Thread class:

```
public static int MIN_PRIORITY
public static int NORM_PRIORITY
public static int MAX_PRIORITY
```

```
class Priority1 extends Thread{
    public void run(){
        System.out.println("running thread name is:"+Thread.currentThread().getName());
        System.out.println("running thread priority  is:
is:"+Thread.currentThread().getPriority());
    }
    public static void main(String args[]){
        Priority1 m1=new TestMultiPriority1();
        Priority1 m2=new TestMultiPriority1();
        m1.setPriority(Thread.MIN_PRIORITY);
        m2.setPriority(Thread.MAX_PRIORITY);
        m1.start();
        m2.start();
    }
}
```

Exercise:

1. What is thread priority? Explain.
2. How can we change the name of a thread?
3. What is Thread.currentThread() ? Explain.