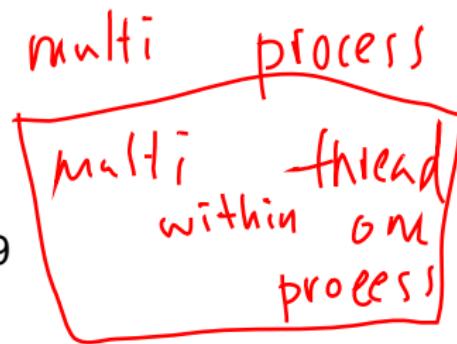# Threads

Hsuan-Tien Lin

Deptartment of CSIE, NTU

OOP Class, June 2, 2009

```
1   class HelloThread extends Thread {
2     int num;
3     HelloThread(int n){ num = n; }
4     public void run() {
5       for(int t = 0; t < 10; t++)
6         System.out.println(t + ": Hello from thread " + num);
7     }
8   }
9
10  public class ThreadDemo{
11    public static void main(String[] argv){
12      for(int i=0;i<3;i++){
13        HelloThread t = new HelloThread(i);
14        t.start();
15      }
16    }
17  }
```

```
1   class HelloRunnable implements Runnable {
2     int num;
3     HelloRunnable(int n){ num = n; }
4     public void run() {
5       for(int t = 0; t < 10; t++)
6         System.out.println(t + ":_Hello_from_thread_" + num);
7     }
8   }
9
10  public class ThreadDemo{
11    public static void main(String[] argv){
12      for(int i=0;i<3;i++){
13        HelloRunnable r = new HelloRunnable(i);
14        Thread t = new Thread(r);
15        t.start();
16      }
17    }
18  }
```

```
1
2    public class ThreadDemo{
3      public static void main(String[] argv) throws InterruptedException{
4        for(int i=0;i<10;i++){
5          System.out.println(i);
6          Thread.sleep(1000);
7        }
8      }
9    }
```

```
1   class HelloThread extends Thread {
2     int num;
3     HelloThread(int n){ num = n; }
4     public void run() {
5       for(int t = 0; t < 10; t++){
6         System.out.println(t + ":_Hello_from_thread_" + num);
7         try {
8   Thread.sleep(500);
9         }
10        catch(InterruptedException e){
11  System.out.println("interrupted");
12        }
13      }
14    }
15  }
16
17  public class ThreadDemo{
18    public static void main(String[] argv){
19      for(int i=0;i<3;i++){
20        HelloThread t = new HelloThread(i);
21        t.start();
22      }
23    }
24  }
```

```
1   class HelloThread extends Thread {
2     int num;
3     HelloThread(int n){ num = n; }
4     public void run() {
5       for(int t = 0; t < 10; t++){
6         System.out.println(t + ":_Hello_from_thread_" + num);
7       }
8     }
9   }
10
11  public class ThreadDemo{
12    public static void main(String[] argv) throws InterruptedException{
13      for(int i=0;i<3;i++){
14        HelloThread t = new HelloThread(i);
15        t.start();
16        t.join();          // 等 t 做完 再繼續
17      }
18    }
19  }
```