

CSCI 112

Tuesday, July 27, 2010

Concurrency

Concurrency – two or more events happening at the same time.

Two Types of Processes

- **Process**
 - has memory
 - has a *process identifier* (PID) in the operating system
- **Thread**
 - a “lightweight process”
 - does not have a PID
 - has a parent process

Forking a Process

This is a Unix term. This means a process can/will duplicate itself during runtime.

Java Uses Threads

By default, there are two threads in every Java program:

- Main execution thread
- Garbage Collector

MyThread.java

```
import java.util.*;

public class MyThread implements Runnable{
    public void run(){
        System.out.println( "Hello, World!" );
    }
    public static void main( String[] args ){
        MyThread a = new MyThread();

        Thread t = new Thread(a);
        //Thread constructor requires any object that implements runnable

        t.start(); //begin the new thread
    }
}
```