Class: Operating Systems - Notes on 01-29-18 - References:

Threads

- Most modern applications are multi-threaded
- threads run within an application
- Amdahl's Law:
    - *N more cores doesn't mean program gets N faster*
    - speedup <= (1/(S+(1-S)/N))
        - N=2 =====> *1.6 speedup*

- User Threads & Kernel Threads

    - User Threads
        - Used toMultiple User threads mapped to a kernel thread
        - Now most user threads are now 1-to-1 with OS/Kernel threads
    - Kernel Threads
        - mapped to the O.S. Threads
    - To create and manage threads you usually need a library.

Java Threads

1. class extends thread
2. class needs a "run" method
3. create object of class
4. call obj.start() --> initialization & it calls run

```
class myThread extendsThread {
    public void run(){
```

```
        while(true){
            SOP("wow");
        }
    }
}
```

```
class m{
    public static void main(String args[]) {
        myThread thr = new myThread();
        thr.start();
    }
}
```