

Multiprocessing and Multithreading

- **Python is slow** comparing to other programming languages;
- We can overcome the Python speed problem using **multiprocessing** or **multithreading**
- **Python script execution:**
 1. When you type **python automation_script.py** in your shell you instruct your processor **to create and to schedule a single process** which is the smallest unit of processing
 2. The allocated process will start to execute the script line by line.
 3. Once the script hit the EOF, the process will be terminated and its resources will be returned to the free pool to be used by other processes
- Inside a process there could be more running threads
- The problem with assigning a lot of threads to one process without special handling is what's called **Race Condition**
- *CPython* uses **GIL(Global Interpreter Lock)**