First OS Concept: Thread of Control

- **Thread: Single unique execution context**
  - **Program Counter, Registers, Execution Flags, Stack**
- A thread is executing on a processor when it is resident in the processor registers.
- PC register holds the address of executing instruction in the thread.
- Certain registers hold the context of thread
  - Stack pointer holds the address of the top of stack
    » Other conventions: Frame Pointer, Heap Pointer, Data
  - May be defined by the instruction set architecture or by compiler conventions
- Registers hold the root state of the thread.
  - The rest is "in memory"