



Process Concept

- Textbook uses the terms *job* and *process* almost interchangeably
- Process – a program in execution
- A process includes:
 - program counter
 - stack
 - data section
 - Text
 - heap





The Process

- ❑ **Structure of a process in memory:**
- ❑ The program code, also called **text section**
 - ❑ Current activity including **program counter**, processor registers
 - ❑ **Stack** containing temporary data
 - ▶ Function parameters, return addresses, local variables
 - ❑ **Data section** containing global variables
 - ❑ **Heap** containing memory dynamically allocated during run time
- ❑ Program is passive entity, process is active
 - ❑ Program becomes process when executable file loaded into memory
- ❑ Execution of program started via GUI mouse clicks, command line entry of its name, etc
- ❑ One program can be several processes





Process in Memory

