Segments of a Process

- Process’ memory is divided into logical segments
  - Some are read-only, others read-write
  - Some are known at compile time, others grow dynamically as program runs

- Who assigns memory to segments?
  - Compiler and assembler generate an object file (containing code and data segments) from each source file
  - Linker combines all the object files for a program into a single executable object file, which is complete and self-sufficient
  - Loader (part of OS) loads an executable object file into memory at location(s) determined by the operating system
  - Program (as it runs) uses new and malloc to dynamically allocate memory, gets space on stack during function calls