1 Process

Vocabularies

1. **Process**
   - Is a program in execution
2. **Running Program**
   - Is a collection of coded software instructions that can be executed by a computer to perform a specific task
3. **Time Sharing**
   - Is a basic technique used by an OS to share a resource
   - Allows an entity to use the resource for a little while, and then a little while by another, and so forth

   Example

   CPU
4. **Space Sharing**
   - Is where a resource (space) is divided among those who wishes to use it

   Example

   Disk, and Memory
5. **Mechanism**
   - Is a low-level method or protocol that implement a needed piece of functionality.

   Example

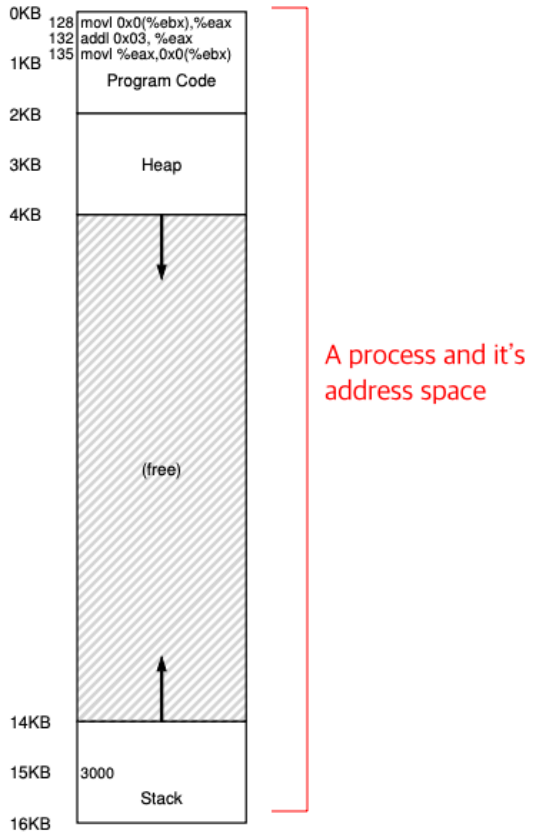
   Context Switching
6. **Policy**
   - Is an algorithm for making some kinds of decision within the OS

   Example

   Scheduling Policy. That is, what kind of program should the OS run?

7. **Address Space**

   - Is a range of discrete addresses where each corresponds to a memory cell

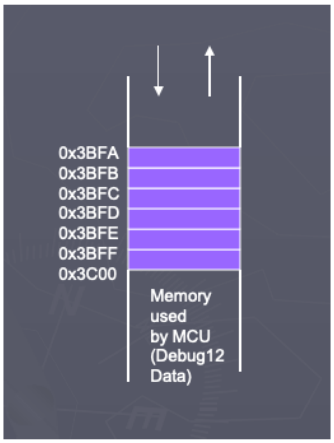


8. **Program Counter**

   - Is also called **Instruction Pointer**
   - Is a process register that tells which instruction of the program is currently being executed

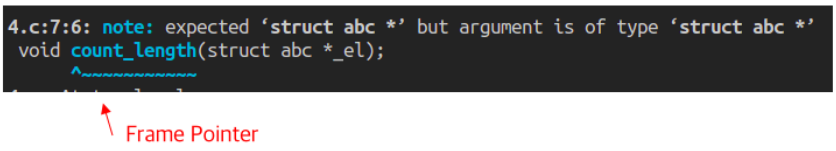
9. **Stack Pointer**

   - Is a resgister that points to the location of last item placed in memory block



10. **Frame Pointer**

    - Is a reference pointer allowing a debugger to know where local variable or an argument is at with a single constant offset



11. **Eager Loading Process**

    - Is the process that loads all code and data before running the program

12. **Lazy Loading Process**

    - Is the process that loads piece of code or data only as they are needed during program execution

13. **Stack**

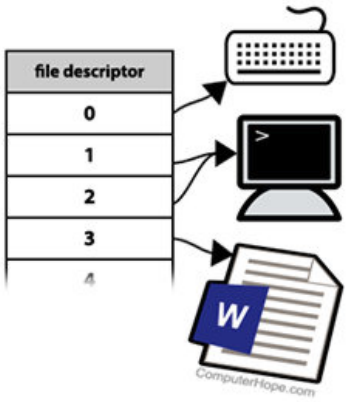
    - Is also called **runtime stack**, **automatic memory**
    - Is a special region in computer's memory that temporarily stores local variables, function parameters, and return addresses
    - Is managed by compiler

14. **Heap**

    - Is a user-managed region in computer memory
    - Is used for dynamically-allocated data structures such as linked list, hash-tables, and trees

- Is allocated using `malloc`, `calloc`, and `realloc`

15. **File Descriptors**
    - Is a number that uniquely identifies an open file in a computer's operating system



16. **Persistence**
17. **Process States**
18. **Process List**
19. **Context Switch**
20. **Process Control Block**
21. **Zombie State**