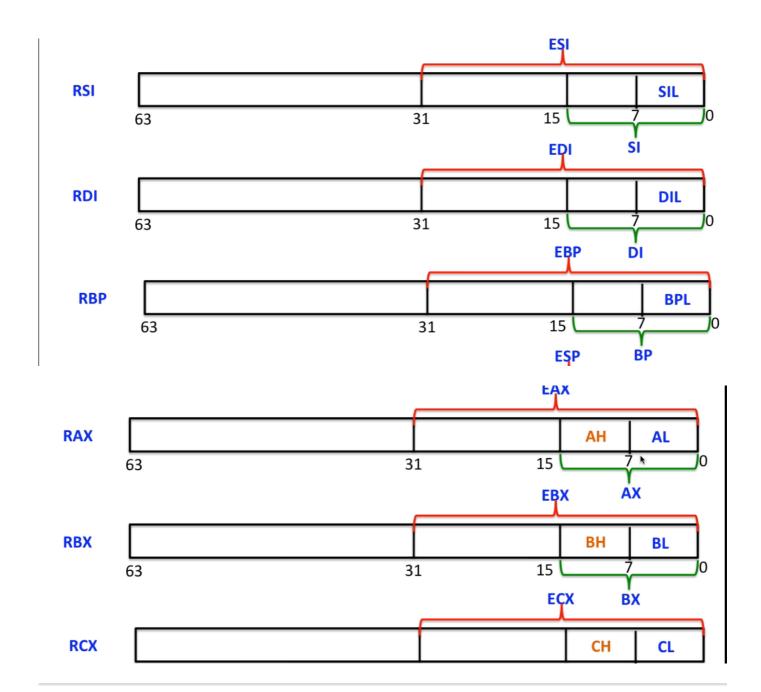
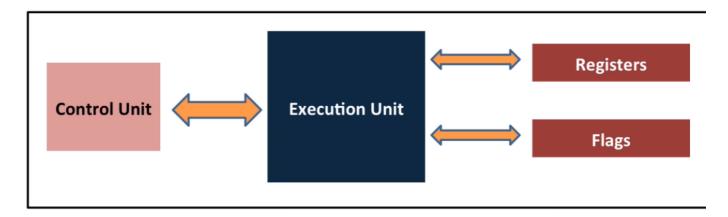
## **CPU Basics**

- Intel:
  - o IA-32 (32 bit)
  - o X86\_64 (64 bit)
- Cpu Registers for 64 bit
  - o General Purpose Registers.
    - 1. RAX
    - 2. RBX
    - 3. RCX
    - 4. RDX
    - 5. RSI
    - 6. RDI
    - 7. RBP
    - 8. RSP (Stack Pointer)
    - 9. R8
    - 10. R9
    - 11. R10
    - 12. R11
    - 13. R12
    - 14. R13
    - 15. R14
    - 16. R15
- RIP Register:
  - Instruction Pointer





- ARM
- MIPS



- •Control Unit Retrieve / Decode instructions, Retrieve / Store data in memory
- •Execution Unit Actual execution of instruction happens here
- •Registers Internal memory locations used as "variables"
- •Flags Used to indicate various "event" when execution is happening



- To know you Archi.
  - o [lscpu] (Linux)
  - o cat /proc/cpuinfo (Linux)