Csc11 Notes

Overview

* Architecture
* Number systems

Architectures

* Von Neuman Architecture
  + Store program concept
* CPU
  + Central processing unit
  + Controls processes
* ALU
  + Arithmetic Logic Unit
  + Handles math logic statements
* Architecture Flow
  + Input device > CPU/ALU > Output devices
* Memory devices
  + Memory Ram
  + ROM
    - Read only memory
  + Processed to CPU through a bus
* 64 Comodor (Old computer)
  + 64Kb memory
  + Had Basic language built in
    - Still exists in Visual basic
    - Good for beginners
    - All symbolic

Cache

* Faster than memory
* Computers have 2 types of cache
  + Data cache
  + Instruction cache
* Cache is located on CPU
* Types of cache
  + Slower but cheaper
    - Ram (cost 1x)
    - L3 (cost 10x)
    - L2 (cost 100x)
    - L1 (cost 1000x)
  + Faster but costly

Rasberry PI

* ARM cortex A53

Threads