Simple Documentation

1. Managers

* ProcessManager

(further called PM)

* Goal:
  1. Service ProcessQueue from SO
  2. Service CPU
  3. Allocate Frames For Processes // to VMM
  4. Optional Generate ProcessQueue to SO
  5. Run VirtualMemoryManager ( further called VMM ) every Tick
  6. Time Ellapse
  7. Sends To Calculator Finished Processes
* Input:
  1. InputProcesses : ProcessQueue
* Output:
  1. AverageAccessTime : Double
* VMM
* Goal:
  1. Service page of set ProcessMy with PageAlgo
  2. Service Page With HDD
  3. Set Pages of Process To Their Frames
  4. Update RAM Frames With Process.Frames
* Input:
  1. PagingType: enum
  2. PageQueue : PageQueue
  3. Current Process : ProcessMy
* Output:
  1. PageFaults : Integer // to edit
* SO
* Goal:
  1. Run PM, further called
  2. Get From PM Average AccessTime and set To Its Register
  3. Set Pages of Process To Their Frames
  4. Update RAM Frames With Process.Frames
* Input:
  1. PageQueue : String[] , ProcessQueue
  2. ProcessQueue : String[]
  3. LocalityRefference : bool
* Output:
  1. AverageAccesTime : double
  2. PageFaults : int

2.Algorithms

* SchedAlgo
* Goal:
  1. Sort ProcessQueue
* Input:
  1. Raw Queue: ProcessQueue
* Output:
  1. Ordered Queue: ProcessQueue
* PageAlgo
* Goal:
  1. Sort Frames Of process Reffering To Ram
  2. Reset Frequency Of Last Frame ( LFU )
* Input:
  1. ProcessMy
* Output:
* FrameAlgo
* Goal:
  1. Calculate Indexes and Lengths Of Frames from RAM to Assign Them To Process
* Input:
  1. Urgent Cores: List<Core>
* Output:
  1. Indexes And Lengths: LinkedList<LinkedList<Integer>>

3.Schedulers

* ProcessScheduler
* Goal:
  1. Transfor Waiting Processes To Ready
  2. Run SchedAlgo
* Input:
  1. WaitingProcesses: ProcessQueue
  2. SchedulingType: enum
* Output:
  1. ReadyProcesses: ProcessQueue

// Redundant Connector , Inject Algo Queue int o ProcessManager

4.Collections

* PageQueue
* Goal:
  1. Limit the Queue
  2. Fill With Empty Pages
  3. Return All Indexes Of Every Page
* Input:
  1. Idx Of Pages: String[]
  2. Idx Of Pages :LinkedList<Integer>
* Output:
* ProcessQueue
* Goal:
  1. DequeueFinishedProcesses
  2. Add Output Pages For Processes
* Input:
  1. Values For Processes: String[]
  2. Values For Processes:LinkedList<Integer>
* Output:
  1. Sum Of Time Execute

5.Elementaries

* ProcessMy
* Goal:
  1. AtomicOperations On Time,State,Data Values
  2. Generate Own Page Refferences
  3. Sync Single Frame To RAM
  4. Perform
* Input:
  1. Idx, Length Of Frames TO Get: Integer,Integer
* Output:
  1. PageFaults: int