

Lab Three

Joe Kariuki

Joe.Kariuki@Marist.edu

October 7, 2019

1 QUESTION 1

Explain the difference between internal and external fragmentation?

External fragmentation occurs only when dynamically dividing out memory or disk space for processes based on available space. External fragmented blocks are available for allocation, but may be too small to be of any use. On the other hand, internal fragmentation occurs only when dividing up memory or disk space for process in equal sizes. The lost memory is becomes wasted space within each allocated block because of rounding up from the actual requested allocation to the allocation granularity.

2 QUESTION 2

Given five (5) memory partitions of 100KB, 500KB, 200KB, 300KB, and 600KB (in that order), how would optimal, first-fit, best-fit, and worst-fit algorithms place processes of 212KB, 417KB, 112KB, and 426KB (in that order)?

First Fit

None => 100KB

212KB => 500KB

112KB => 200KB

None => 300KB

417 => 600KB

426KB in that order will not fit

Best Fit

None => 100KB

417KB => 500KB

112KB => 200KB

212KB => 300KB

426KB => 600KB

Worst Fit

None => 100KB

417KB => 500KB

None => 200KB

112KB => 300KB

212KB => 600KB

426KB in that order will not fit