Lab Three

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1 Problem Two

1.1 Variable Size

Q: 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)?

Assuming fixed-sized:

First Fit: 212KB goes into the 500KB, 417KB goes into the 600KB, 112KB goes into the 500KB (that already has the 212KB program) and then there would be no room for the 426KB (and thus external fragmentation).

Best-Fit: 212KB goes into 300KB, 417KB goes into the 500KB, 112KB goes into the 200KB, and 426KB goes into the 600KB.

2 Problem One

2.1 Fragmentation

Q: Explain the difference between internal and external fragmentation?

Internal Fragmentation: The partition does not full take up the partition allocated to it.

External Fragmentation: The program takes up more space than the partition allocated to it and must rely on dynamic loading and dynamically linked libraries.