CS307 Project7: Contiguous Memory Allocation

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- 1 Programming Thoughts
- 2 Execution Results And Snapshots

```
dreamboy@Elon_Mask:~/OSProjects/project8$ ./manager addresses.txt
Page numbers: 256, Page size: 256
Frame numbers: 256, Frame size: 256
Process finished! Output saved to => ./output.txt
Page fault: 24.376%
TLB hit: 5.594%
```

Figure 1: test

```
correct.txt (~/OSProjects/project8) - VIM
                                                 Mirtual address: 16916 Physical address:
Virtual address: 62493 Physical address:
Virtual address: 30198 Physical address:
Virtual address: 53683 Physical address:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20 Value: 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 <u>Virtual address: 16916, Physical address: 20, Value: 0</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Virtual address: 16916, Physical address: 20, Value: 0
Virtual address: 62493, Physical address: 285, Value: 0
Virtual address: 30198, Physical address: 758, Value: 29
Virtual address: 53683, Physical address: 947, Value: 108
Virtual address: 40185, Physical address: 1273, Value: 0
Virtual address: 28781, Physical address: 1389, Value: 0
Virtual address: 24462, Physical address: 1678, Value: 23
Virtual address: 48399, Physical address: 1807, Value: 67
Virtual address: 18205, Physical address: 2423, Value: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          285 Value: 0
758 Value: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               947 Value: 108
                                                 Virtual address: 40185 Physical address:
Virtual address: 28781 Physical address:
Virtual address: 24462 Physical address:
Virtual address: 48399 Physical address:
Virtual address: 64815 Physical address:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1273 Value:
1389 Value:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1678 Value:
1807 Value:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10 Virtual address: 18295,
11 Virtual address: 12218,
12 Virtual address: 22760,
13 Virtual address: 57982,
                                                      Virtual address: 18295 Physical address:
Virtual address: 12218 Physical address:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2423 Value:
2746 Value:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Physical address: 2423,
Physical address: 2746,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Value:
Value:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10 Virtual address: 18295, Physical address: 2423, Value: -35
11 Virtual address: 12218, Physical address: 2746, Value: 11
12 Virtual address: 22760, Physical address: 3048, Value: 0
13 Virtual address: 57982, Physical address: 3198, Value: 56
14 Virtual address: 57982, Physical address: 3390, Value: 56
14 Virtual address: 54894, Physical address: 3694, Value: 53
16 Virtual address: 38929, Physical address: 3694, Value: 53
16 Virtual address: 38929, Physical address: 3857, Value: 0
17 Virtual address: 32865, Physical address: 4193, Value: 6
18 Virtual address: 64243, Physical address: 4595, Value: 66
20 Virtual address: 64454, Physical address: 5602, Value: 62
21 Virtual address: 55041, Physical address: 5502, Value: 62
21 Virtual address: 18633, Physical address: 5557, Value: 0
22 Virtual address: 18557, Physical address: 5557, Value: 0
23 Virtual address: 61066, Physical address: 5956, Value: 59
25 Virtual address: 62615, Physical address: 407, Value: 37
26 Virtual address: 6717, Physical address: 6311, Value: 105
27 Virtual address: 6727, Physical address: 6727, Value: -111
29 Virtual address: 6727, Physical address: 6727, Value: -112
20 Virtual address: 60645, Physical address: 6717, Value: -111
20 Virtual address: 60645, Physical address: 7397, Value: 0
31 Virtual address: 45688, Physical address: 7397, Value: 0
32 Virtual address: 49891, Physical address: 8379, Value: 0
33 Virtual address: 49891, Physical address: 8379, Value: 0
34 Virtual address: 49891, Physical address: 8379, Value: -18
35 Virtual address: 41118, Physical address: 8990, Value: 48
36 Virtual address: 21395, Physical address: 9107, Value: -28
4uttxt [FORMAT=unix] [TYPE=TEXT] [POS=1,1][0%] 23/05/19V-\16:40
                                                 Virtual address: 12218 Physical address: 2746 Value: Virtual address: 22760 Physical address: 3048 Value: Virtual address: 57982 Physical address: 3198 Value: Virtual address: 27966 Physical address: 3390 Value: Virtual address: 54894 Physical address: 3694 Value: Virtual address: 38929 Physical address: 3857 Value: Virtual address: 32865 Physical address: 4193 Value: Virtual address: 64243 Physical address: 4595 Value: Virtual address: 2315 Physical address: 4610 Value: 6410 Value
                                                    Virtual address: 0424 Physical address: 4995 Value: -0 Virtual address: 2315 Physical address: 4619 Value: 66 Virtual address: 64454 Physical address: 5062 Value: 62 Virtual address: 55041 Physical address: 5121 Value: 0 Virtual address: 18633 Physical address: 5577 Value: 0 Virtual address: 14557 Physical address: 5853 Value: 0 Virtual address: 16060 Physical address: 5858 Value: 50 Virtual Address: 16060 Physical Address: 5858 Value: 50 Virtual Address: 16060 Physical Address: 16060 Value: 50 Virtual Address: 16060 Physical Address: 16060 Value: 50 Value: 50 Virtual Address: 16060 Physical Address: 16060 Value: 50 Va
                                             Virtual address: 18633 Physical address: 5577 Value: 0
Virtual address: 14557 Physical address: 5853 Value: 0
Virtual address: 61006 Physical address: 5966 Value: 59
Virtual address: 62615 Physical address: 407 Value: 37
Virtual address: 62615 Physical address: 6311 Value: 105
Virtual address: 67474 Physical address: 6635 Value: 58
Virtual address: 6727 Physical address: 6727 Value: -111
Virtual address: 6727 Physical address: 6727 Value: -111
Virtual address: 60645 Physical address: 6971 Value: -114
Virtual address: 6308 Physical address: 7380 Value: 0
Virtual address: 45688 Physical address: 7880 Value: 0
Virtual address: 46891 Physical address: 8137 Value: 0
Virtual address: 40891 Physical address: 8379 Value: -18
Virtual address: 49294 Physical address: 8590 Value: 48
Virtual address: 41118 Physical address: 8862 Value: 49
Virtual address: 21395 Physical address: 9107 Value: -28
**txt [FORMAT=unix] [TYPE=TEXT] [POS=1,1][0%] 23/05/19 - 16
<ect.txt [FORMAT=unix] [TYPE=TEXT] [POS=1,1][0%] 23/05/19 - 16:40 <ut.txt [FORMAT=unix] [TYPE=TEXT] [POS=1,1][0%] 23/05/19\-\16:40</pre>
```

Figure 2: test

3 Code Explanation