

Ain Shams University
Faculty of engineering
Computer & system engineering department

Documentation on:

Memory Allocation Project

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Section: 2

How to use the program

- 1- Choose the Allocation Method
- 2- Enter the Memory size
- 3- Enter the number of holes & the number of processes
- 4- Fill the holes table with the start address and the size of each hole
- 5- Enter each process size
- 6- Press "Save"

7- For Allocation

Choose the process you want to allocate from the drop menu then press "Allocate"

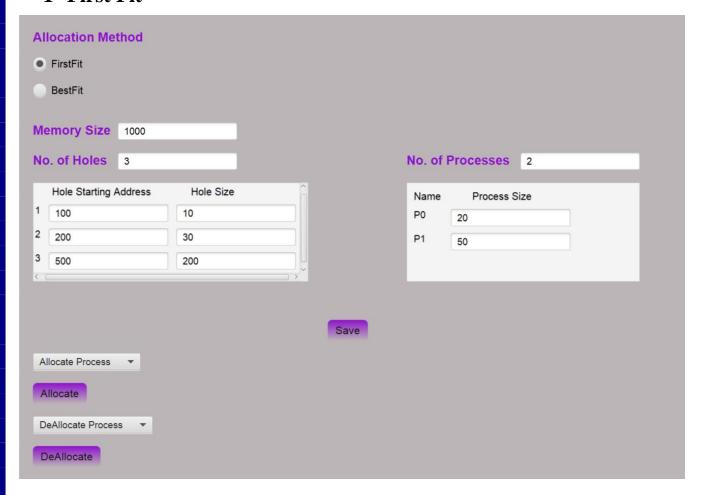
8- For Deallocation

Choose the process you want to Deallocate from the drop menu then press "Deallocate"

PS: "Block" means a process has been allocated before the program start

Test cases For the program

1- First Fit



Ending Address: 99 Starting Address: 100 Starting Address: 100 Ending Address: 109 Ending Address: 109 Starting Address: 200 Ending Address: 229 Starting Address: 220 Ending Address: 229 Starting Address: 500 Ending Address: 699 Ending Address: 499 Starting Address: 700 Starting Address: 500 Ending Address: 699 Starting Address: 700

The memory before allocate any process

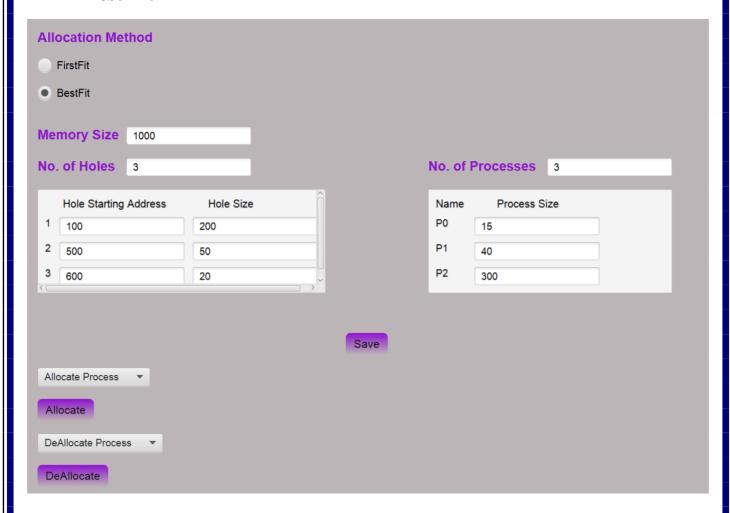
the memory after allocate P0

Starting Address: 0 Starting Address: 0 Ending Address: 99 Ending Address: 109 Starting Address: 100 Starting Address: 110 Ending Address: 109 Ending Address: 199 Starting Address: 110 Starting Address: 200 Ending Address: 199 Starting Address: 200 Ending Address: 219 Starting Address: 220 Ending Address: 219 Starting Address: 220 Ending Address: 229 Starting Address: 230 Ending Address: 229 Starting Address: 230 Ending Address: 499 Starting Address: 500 Ending Address: 499 Starting Address: 500 Ending Address: 549 Ending Address: 549 Starting Address: 550 Starting Address: 550 Ending Address: 699 Ending Address: 699 Starting Address: 700 Starting Address: 700 Ending Address: 1000 Ending Address: 1000

After Deallocate Block0

After allocate P0 & P1

2- Best Fit



Starting Address: 0 Starting Address: 100 Ending Address: 299 Ending Address: 499 Starting Address: 500 Ending Address: 549 Starting Address: 550 Ending Address: 599 Starting Address: 600 Ending Address: 619 Starting Address: 620

Starting Address: 0 Ending Address: 99 Starting Address: 100 Ending Address: 299 Starting Address: 300 Ending Address: 499 Starting Address: 500 Ending Address: 549 Starting Address: 550 Ending Address: 599 Starting Address: 600 Ending Address: 614 Starting Address: 615 Ending Address: 619 Starting Address: 620 Ending Address: 1000

memory before allocate any process

memory after allocate P0

Starting Address: 0 Starting Address: 0 Ending Address: 99 Ending Address: 99 Starting Address: 100 Starting Address: 100 Ending Address: 299 Ending Address: 299 Starting Address: 300 Starting Address: 300 Ending Address: 499 Ending Address: 499 Starting Address: 500 Starting Address: 500 Ending Address: 539 Ending Address: 539 Starting Address: 540 Starting Address: 540 Ending Address: 549 Ending Address: 549 Starting Address: 550 Starting Address: 550 Ending Address: 599 Starting Address: 600 Ending Address: 599 Starting Address: 600 Ending Address: 614 Starting Address: 615 Ending Address: 619 Starting Address: 620 Ending Address: 619 Starting Address: 620 Ending Address: 1000

After allocate P0 & P1

After Deallocate P0

If we allocate P2 which has no space to be allocated Error message will appear

