Memory Allocation Simulator

Operating System II

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Introduction

Memory allocation means assigning the process to the suitable block, there are 3 algorithms to allocate the process: first fit, best fit and worst fit. The code was written in C++, using visual studio.

The First Fit:

This assigns the process to the first block that is big enough for it no matter how big the process is , the important thing it fits .

The Best Fit:

In this algorithm it searches in the entire block table and chooses the block that's big enough but also so close to the process size so that it won't waste a lot of memory.

The Worst Fit:

An algorithm that assigns the process to the biggest block in the block table, wasting a lot of memory

The First Fit: run & code

In the code , it asks the user to enter all the details for the block and process to apply the first fit algorithm , entering the block number , process number , blocks sizes and the process sizes . Then , after calculating the required algorithm , a table is displayed showing where did each process got allocated .

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The Best Fit: run & code

After entering all the wanted data , the best fit algorithm is done on this data , then the table shows which block took which process to be its best fit .

```
Best Fit Algorithm

Best Fit Algorithm

Insert the desired number of blocks please:5

Insert the desired number of processes please:4

Insert the desired size of the blocks please:
Enter the Block Number0:15
Enter the Block Number0:15
Enter the Block Number0:15
Enter the Block Number0:43

Enter the Block Number0:43

Enter the process sizes please :-
Enter the Process sizes please B:1
Enter the Proc
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The Worst Fit: run & code

The block and process number is entered, then their values are entered into an array, after that the worst fit algorithm is applied to the data, at the end the table shows the results.

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