

Name: Mario Shady

ID: 2019/07046

Name: Mohamed Mohamed
2019/

ID:

Memory Allocation Algorithm using Cpp

This is a c++ software for different memory allocation algorithms including best fit, first fit, and worst fit.

It is full interactive knowing your name, and giving you each and every option to choose from.

It gives you two options two options in the first to:

- 1- starting from either you want to use the template block and processes that we gave in order to understand the different effects of using each and every memory allocation algorithm
- 2- Or if you want to enter your own arrays and change them as much as you like

Then it'll give you three options to choose from

1- First Fit: It basically sees the first hole that fits the process size and put this process in it. REGARDLESS FOR THE INTERNAL FRAGMENTATION

2- Best Fit: It basically scans the whole free block holes, sees the smallest hole that fits the process size and put this process in it.

So it is the best algorithm to save the blocks' memories and the smallest internal fragmentation that we can obtain from memory allocation algorithm

But as it scans the whole memory blocks to see the smallest hole that can fits the process

It takes much more time than the first fit.

3- Worst Fit: It basically scans the whole free block holes, sees the largest hole that fits the process size and put this process in it.

So it is the worst algorithm to save the blocks' memories

Because of two reasons

- 1- It scans the whole list so, it has a very large processing time
- 2- It obtains the largest internal fragmentation, and this reduces the memory efficiency exponentially

That's why it's called the Worst Algorithm