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 :

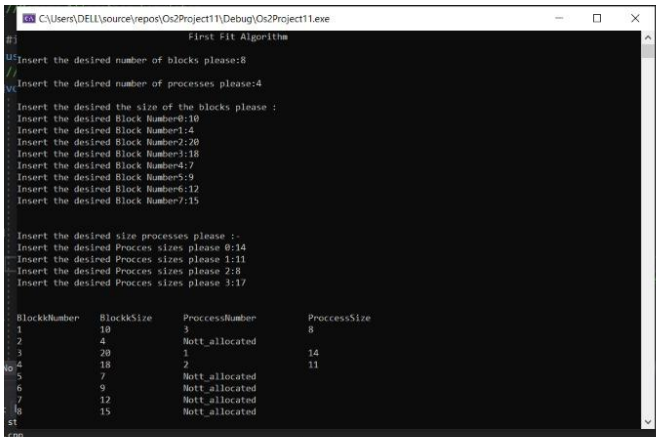
In this algorithm it searches in the entire block table and chooses the block that's big enough but also so close to the process size so that it won't waste a lot of memory .

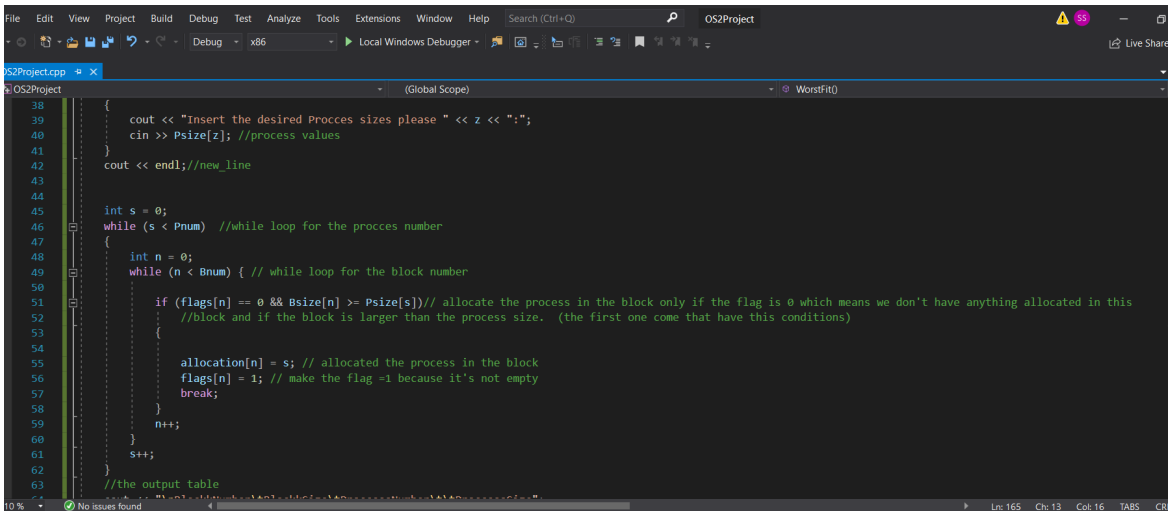
The Worst Fit :

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

The First Fit : run & code

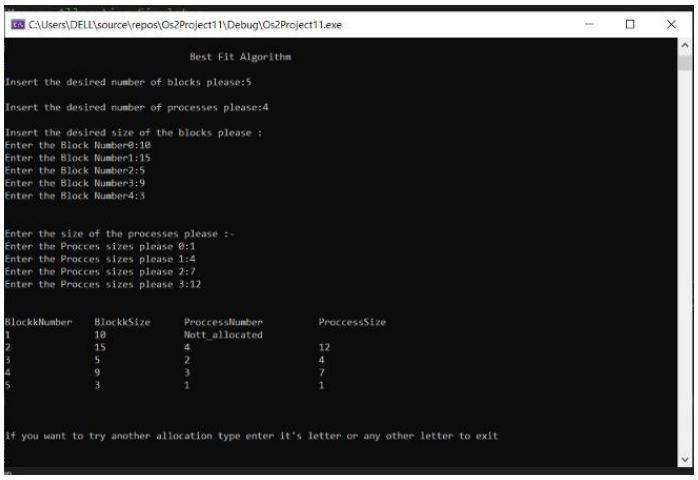
In the code , it asks the user to enter all the details for the block and process to apply the first fit algorithm , entering the block number , process number , blocks sizes and the process sizes . Then , after calculating the required algorithm , a table is displayed showing where did each process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

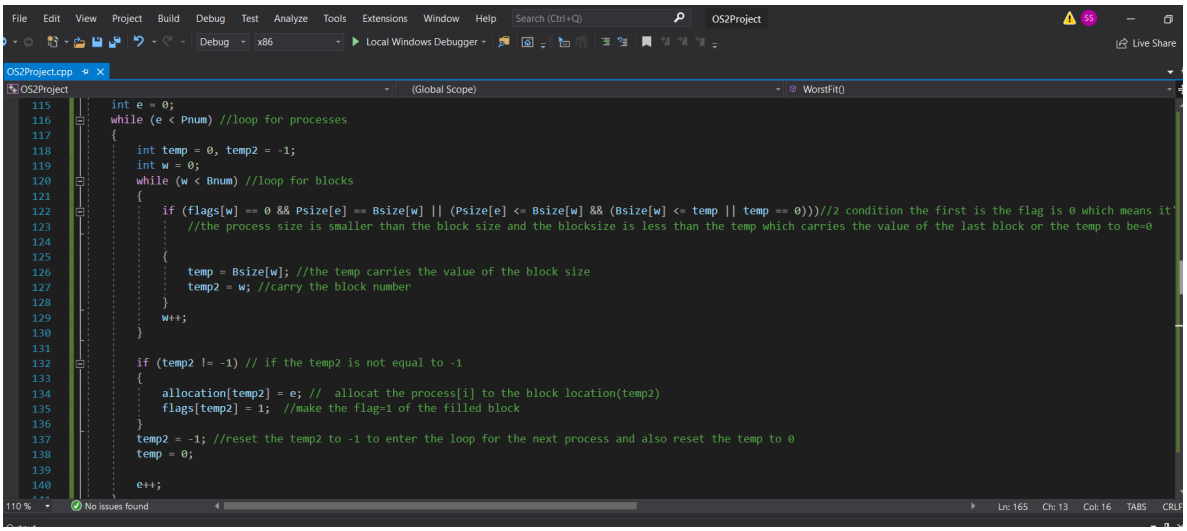




The Best Fit : run & code

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 .





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 .