Anu S

230701030

Ex.No.10b)First Fit

Aim:

To write a C program for implementation memory allocation methods for fixed partition using first fit.

Code:

#include <stdio.h>

int main() {

int blockSize[10], processSize[10], blockCount, processCount;

int allocation[10];

// Input number of memory blocks and their sizes

printf("Enter number of memory blocks: ");

scanf("%d", &blockCount);

printf("Enter sizes of %d memory blocks:\n", blockCount);

for (int i = 0; i < blockCount; i++) {

scanf("%d", &blockSize[i]);

}

// Input number of processes and their sizes

printf("Enter number of processes: ");

scanf("%d", &processCount);

printf("Enter sizes of %d processes:\n", processCount);

for (int i = 0; i < processCount; i++) {

scanf("%d", &processSize[i]);

allocation[i] = -1; // Initially no allocation

}

// First Fit Allocation

for (int i = 0; i < processCount; i++) {

for (int j = 0; j < blockCount; j++) {

if (blockSize[j] >= processSize[i]) {

allocation[i] = j;

blockSize[j] -= processSize[i];

break;

}

}

}

// Display allocation result

printf("\nProcess No.\tProcess Size\tBlock No.\n");

for (int i = 0; i < processCount; i++) {

printf(" %d\t\t %d\t\t", i + 1, processSize[i]);

if (allocation[i] != -1)

printf("%d\n", allocation[i] + 1);

else

printf("Not Allocated\n");

}

return 0;

}

Output:

Enter number of memory blocks: 5

Enter sizes of 5 memory blocks:

100 500 200 300 600

Enter number of processes: 4

Enter sizes of 4 processes:

212 417 112 426

Process No. Process Size Block No.

1 212 2

2 417 5

3 112 1

4 426 Not Allocated