//firstfit

#include <stdio.h>

#define MAX\_BLOCKS 10

int main() {

int block\_sizes[MAX\_BLOCKS], process\_allocations[MAX\_BLOCKS];

int num\_blocks, num\_processes, process\_sizes[MAX\_BLOCKS];

// Input memory block sizes

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

scanf("%d", &num\_blocks);

printf("Enter the sizes of the memory blocks:\n");

for (int i = 0; i < num\_blocks; i++) {

printf("Block %d: ", i + 1);

scanf("%d", &block\_sizes[i]);

}

// Input process sizes

printf("\nEnter the number of processes: ");

scanf("%d", &num\_processes);

printf("Enter the sizes of the processes:\n");

for (int i = 0; i < num\_processes; i++) {

printf("Process %d: ", i + 1);

scanf("%d", &process\_sizes[i]);

process\_allocations[i] = -1; // Initially, no block is allocated to this process

}

// First-fit memory allocation

for (int i = 0; i < num\_processes; i++) {

for (int j = 0; j < num\_blocks; j++) {

if (block\_sizes[j] >= process\_sizes[i]) {

process\_allocations[i] = j; // Allocate block j to process i

block\_sizes[j] -= process\_sizes[i]; // Reduce the available size of block j

break;

}

}

}

// Output allocation results

printf("\nMemory Allocation:\n");

for (int i = 0; i < num\_processes; i++) {

if (process\_allocations[i] != -1)

printf("Process %d -> Block %d\n", i + 1, process\_allocations[i] + 1);

else

printf("Process %d -> Not Allocated\n", i + 1);

}

// Remaining block sizes

printf("\nRemaining Block Sizes:\n");

for (int i = 0; i < num\_blocks; i++) {

printf("Block %d: %d\n", i + 1, block\_sizes[i]);

}

return 0;

}

Enter the number of memory blocks: 5

Enter the sizes of the memory blocks:

Block 1: 2

Block 2: 3

Block 3: 4

Block 4: 5

Block 5: 6

Enter the number of processes: 5

Enter the sizes of the processes:

Process 1: 5

Process 2: 6

Process 3: 7

Process 4: 8

Process 5: 9

Memory Allocation:

Process 1 -> Block 4

Process 2 -> Block 5

Process 3 -> Not Allocated

Process 4 -> Not Allocated

Process 5 -> Not Allocated

Remaining Block Sizes:

Block 1: 2

Block 2: 3

Block 3: 4

Block 4: 0

Block 5: 0