Name:- Kritika Rawat
Student Id:- 20052021
Sub Name:- Operating System
Sub Code:- PBI-202
Univ Roll No:- 2023063
Date:- 27 Aug 2021
Course:- BSCIT Sec:- A
Sem:- 2

1. Worst Fit Memory Management Scheme.

```
#include<stdio.h>
int main()
{
printf("\n\t\t\t Memory Management" "- Worst Fit");
int i, j, nblocks, nfiles, temp, top=0;
int frag[10], blocks[10], files[10];
static int block_arr[10], file_arr[10];
printf("\n Enter the Total Number of Blocks:");
scanf("%d", &nblocks);
printf("Enter the Total Number of Files:");
scanf("%d", &nfiles);
printf("\n Enter the Size of the Blocks:\n");
for(i=0; i<nblocks; i++)
{
printf("Block No. %d:\t", i+1);
scanf("%d", &blocks[i]);
}
printf("Enter the Size of the Files:\n");
for(i=0; i<nfiles; i++)
{
printf("File No. %d:\t", i+1);
```

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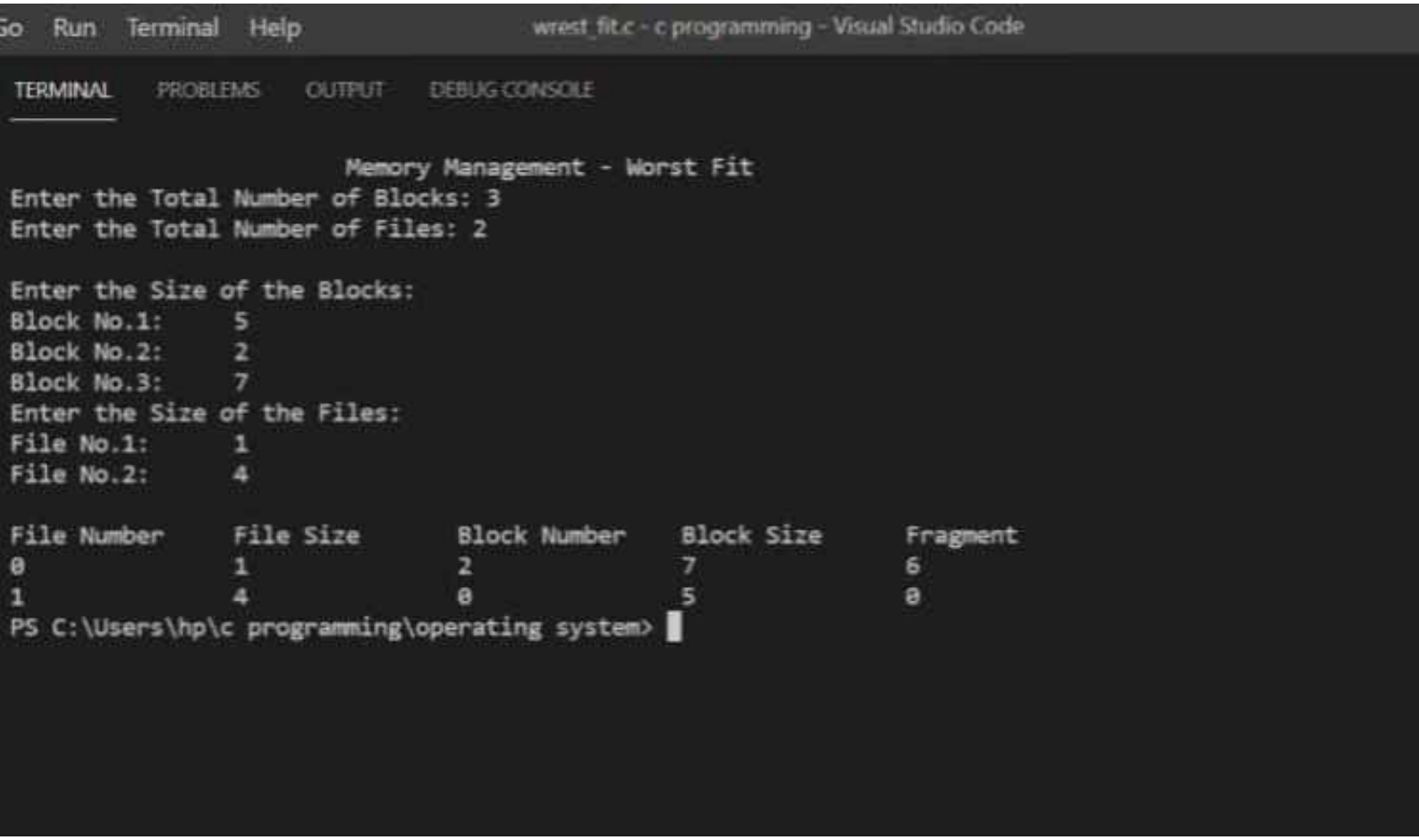
```
scanf("%d", &files[i]);
}
for(i=0; i<nfiles; i++)
{
for(j=0; j<nblocks; j++)
{
if(block_arr[j] != 1)
{
temp = blocks[j] - files[i];
if(temp >= 0)
{
if(top < temp)
{
file_arr[i] = j;
top = temp;
}
}
}
}
frag[i] = top;
block_arr[file_arr[i]] = 1;
top = 0;
}
}
printf("\n File Number \t File Size \t Block Number \t Block
Size \t Fragment");
for(i=0; i<nfiles; i++)
{
printf("\n %d \t\t %d \t\t %d \t\t %d \t\t %d", i, files[i],
file_arr[i], blocks[file_arr[i]], frag[i]);
}
printf("\n");
return 0; }
```

Kruthika.


Go Run Terminal Help
wrest_fit.c - c programming - Visual Studio Code
TERMINAL
PROBLEMS
OUTPUT
DEBUG CONSOLE
Memory Management - Worst Fit
Enter the Total Number of Blocks: 3
Enter the Total Number of Files: 2
Enter the Size of the Blocks:
Block No.1: 5
Block No.2: 2
Block No.3: 7
Enter the Size of the Files:
File No.1: 1
File No.2: 4
File Number File Size Block Number Block Size Fragment
0 1 2 7 6
1 4 0 5 0
PS C:\Users\hp\c programming\operating system>

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(2) Scan disk

```
#include <stdio.h>
#include <stdlib.h>
int main ()
{
   int RQ[100], i, j, n, TotalHeadMovement=0, initial, size,
   move;
   printf ("Enter the Number of Requests \n");
   scanf ("%d", &n);
   printf("Enter the Requests sequence \n");
   for (i=0; i<n; i++)
     scanf("%d", &RQ[i]);
   printf("Enter initial head position \n");
   scanf("%d", &initial);
   printf(" Enter total disk size\n");
   scanf ("%d", &size);
  for (i=0; i<n; i++)
  {
     for (j=0; j<n-i-1; j++)
     {
        if (RQ[j] > RQ[j+1])
        {
           int temp;
           temp = RQ[j];
           RQ[j] = RQ[j+1];
           RQ[j+1] = temp;
```

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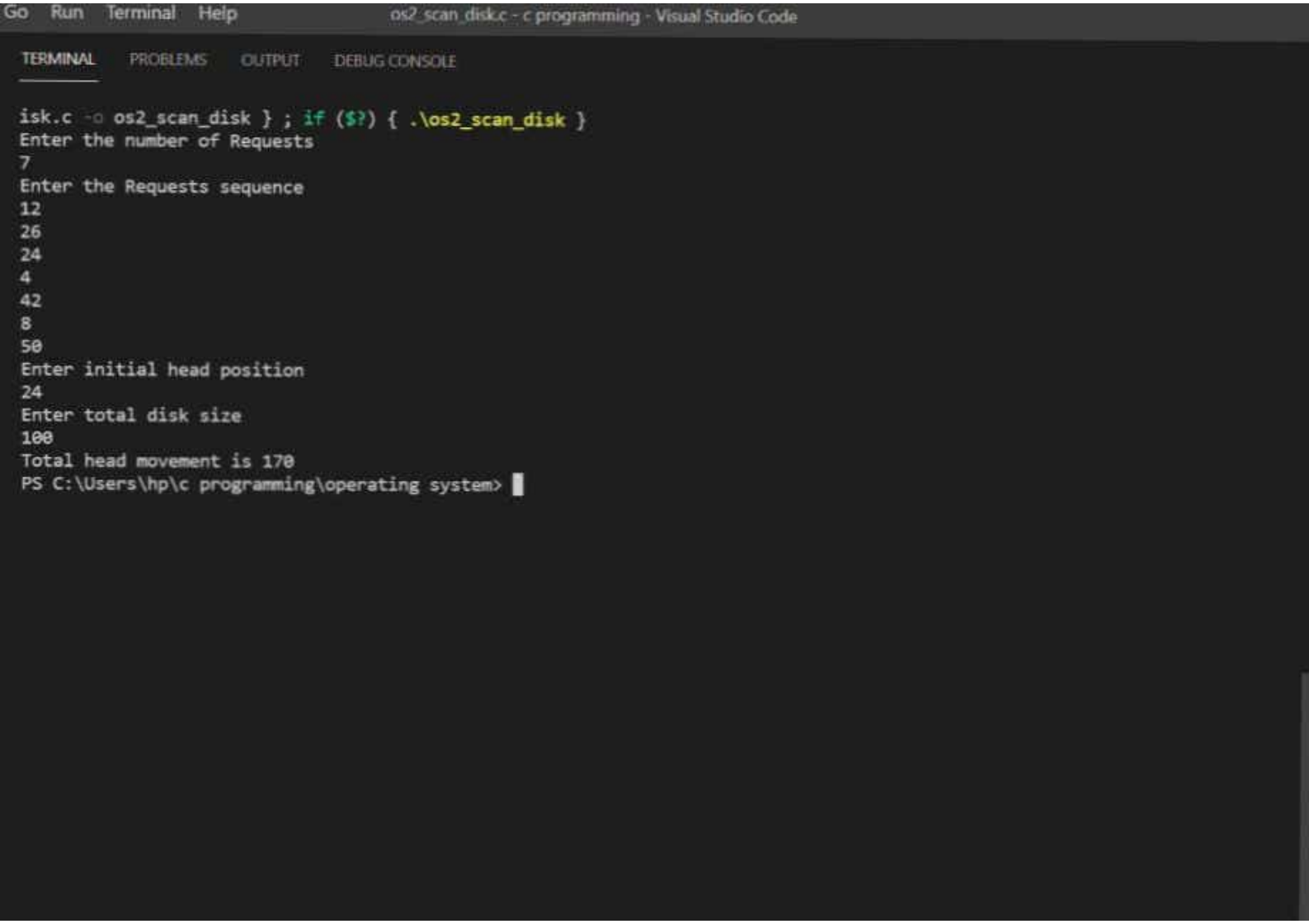
```
    }
  }
}
int index;
for(i=0; i<n; i++)
{
  if(initial<RQ[i])
  {
    index=i;
    break;
  }
}
  for(i=index; i<n; i++)
  {
    TotalHeadMovement = TotalHeadMovement+abs(RQ[i]-
                                    initial);
    initial=RQ[i];
  }
  //last movement for max size.
TotalHeadMoment = TotalHeadMoment + abs(size-RQ[i-1]-1);
initial = size-1;
for(i=index-1; i>=0; i--)
{
  TotalHeadMoment=TotalHeadMoment+abs(RQ[i]-initial);
  initial=RQ[i];
}
printf("Total head movement is %d", TotalHeadMoment);
return 0;
}
```

Exit


Go Run Terminal Help
os2_scan_disk.c - c programming - Visual Studio Code
TERMINAL
PROBLEMS
OUTPUT
DEBUG CONSOLE
isk.c -o os2_scan_disk } ; if ($?) { .\os2_scan_disk }
Enter the number of Requests
7
Enter the Requests sequence
12
26
24
4
42
8
50
Enter initial head position
24
Enter total disk size
100
Total head movement is 170
PS C:\Users\hp\c programming\operating system>