WEEK 10

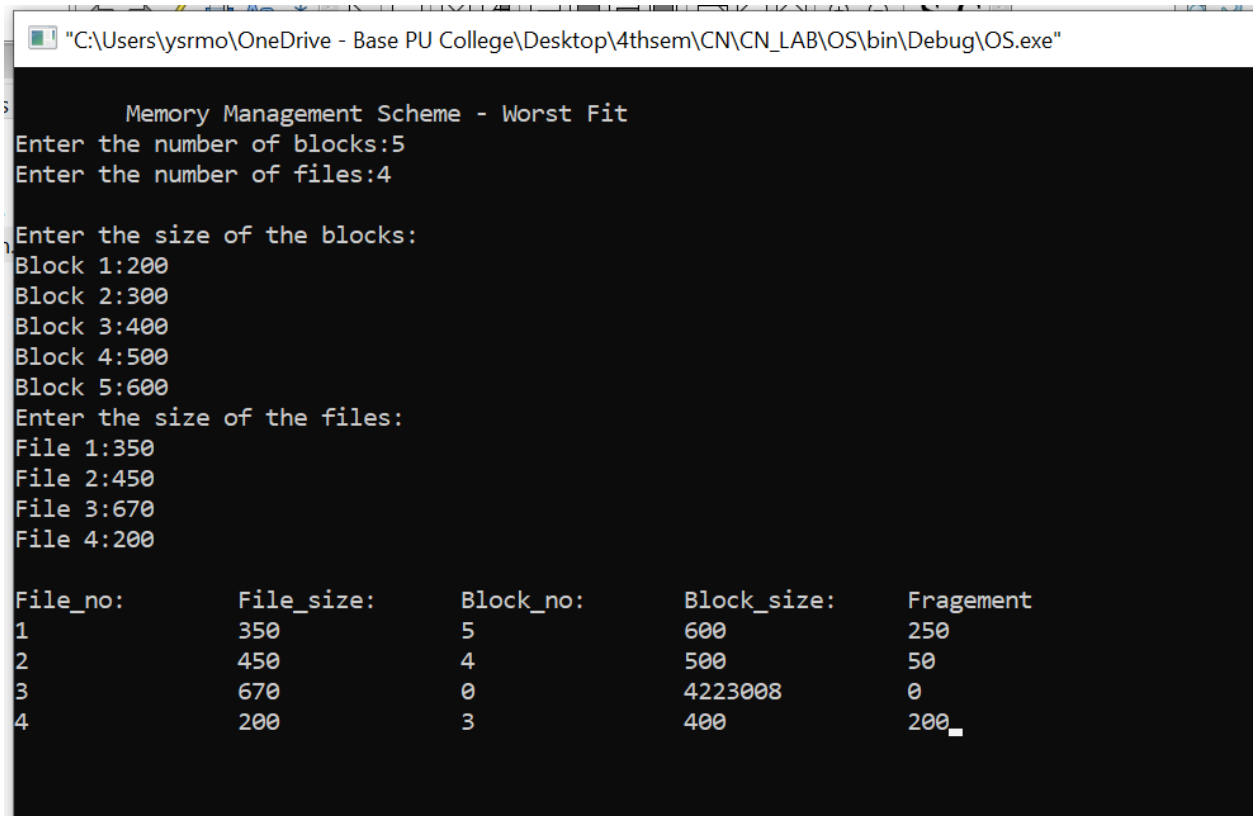
Write a C program to simulate the worst fit contiguous memory allocation technique.

CODE:

```
#include <stdio.h>
#include <conio.h>

#define max 25

void main()
{
   int frag[max], b[max], f[max], i, j, nb, nf, temp, highest = 0;
   int bf[max], ff[max]; // Initialized these arrays to 0
   printf("\n\tMemory Management Scheme - Worst Fit");
   printf("\nEnter the number of blocks:");
   scanf("%d", &nb);
   printf("Enter the number of files:");
   scanf("%d", &nf);
   printf("\nEnter the size of the blocks:\n");
   for (i = 1; i <= nb; i++)
   {
      printf("Block %d:", i);
      scanf("%d", &b[i]);
   }
   printf("Enter the size of the files:\n");
   for (i = 1; i <= nf; i++)
   {
      printf("File %d:", i);
      scanf("%d", &f[i]);
   }

   for (i = 1; i <= nf; i++)
```

```
    {
        highest = 0; // Reset highest to 0 for each new file
        for (j = 1; j <= nb; j++)
        {
            if (bf[j] != 1) // If bf[j] is not allocated
            {
                temp = b[j] - f[i];
                if (temp >= 0)
                {
                    if (highest < temp)
                    {
                        ff[i] = j;
                        highest = temp;
                    }
                }
            }
        }
        frag[i] = highest;
        bf[ff[i]] = 1;
    }

    printf("\nFile_no:\tFile_size:\tBlock_no:\tBlock_size:\tFragement");
    for (i = 1; i <= nf; i++)
    {
        printf("\n%d\t\t%d\t\t%d\t\t%d\t\t%d", i, f[i], ff[i], b[ff[i]], frag[i]);
    }

    getch();
}
```

OUTPUT:


"C:\Users\ysrmo\OneDrive - Base PU College\Desktop\4thsem\CN\CN_LAB\OS\bin\Debug\OS.exe"
Memory Management Scheme - Worst Fit
Enter the number of blocks:5
Enter the number of files:4
Enter the size of the blocks:
Block 1:200
Block 2:300
Block 3:400
Block 4:500
Block 5:600
Enter the size of the files:
File 1:350
File 2:450
File 3:670
File 4:200
File_no: File_size: Block_no: Block_size: Fragement
1 350 5 600 250
2 450 4 500 50
3 670 0 4223008 0
4 200 3 400 200