

S.No: 7	Exp. Name: <b>Write the code to implement the Contiguous allocation technique: - First-Fit</b>	Date: 2022-05-06
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**Aim:**

Write a C program to implement the Contiguous allocation technique: - First-Fit

**Source Code:**

contiguousAllocationTechnique.c

```
#include<stdio.h>
#include<conio.h>
#define max 25
int main(){ int frag[max],b[max],f[max],i,j,nb,nf,temp;
static int bf[max],ff[max];
printf("Enter the number of blocks: ");
scanf("%d",&nb);
printf("Enter the number of files: ");
scanf("%d",&nf);
printf("Enter 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++) {
    for(j=1;j<=nb;j++) {
        if(bf[j]!=1) {
            temp=b[j]-f[i];
            if(temp>=0) {
                ff[i]=j; break;
            } } }
    frag[i]=temp;
    bf[ff[i]]=1; }
printf("File_no\tFile_size\tBlock_no\tBlock_size\tFragement\n");
for(i=1;i<=nf;i++)
printf("%d\t%d\t%d\t%d\t%d\n",i,f[i],ff[i],b[ff[i]],frag[i]);
return 0;}
```

**Execution Results - All test cases have succeeded!**

Test Case - 1
User Output
Enter the number of blocks: 3
Enter the number of files: 2
Enter the size of the blocks 5
Block 1: 5
Block 2: 1
Block 3: 4
Enter the size of the files 2

**Test Case - 1**

File 1: 2

File 2: 4

File_no	File_size	Block_no	Block_size	Fragement
1	2	1	5	3
2	4	3	4	0

**Test Case - 2****User Output**

Enter the number of blocks: 4

Enter the number of files: 6

Enter the size of the blocks 2

Block 1: 2

Block 2: 6

Block 3: 1

Block 4: 8

Enter the size of the files 6

File 1: 6

File 2: 8

File 3: 1

File 4: 3

File 5: 5

File 6: 9

File_no	File_size	Block_no	Block_size	Fragement
1	6	2	6	0
2	8	4	8	0
3	1	1	2	1
4	3	0	144	-2
5	5	0	144	-4
6	9	0	144	-8