Ex. No.: 10B **Roll no:231901004**

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FIRST FIT

Aim:

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

Algorithm:

1. Define the max as 25.
2: Declare the variable frag[max],b[max],f[max],i,j,nb,nf,temp, highest=0, bf[max],ff[max]. 3: Get the number of blocks,files,size of the blocks using for loop.
4: In for loop check bf[j]!=1, if so temp=b[j]-f[i]
5: Check highest

Program Code:

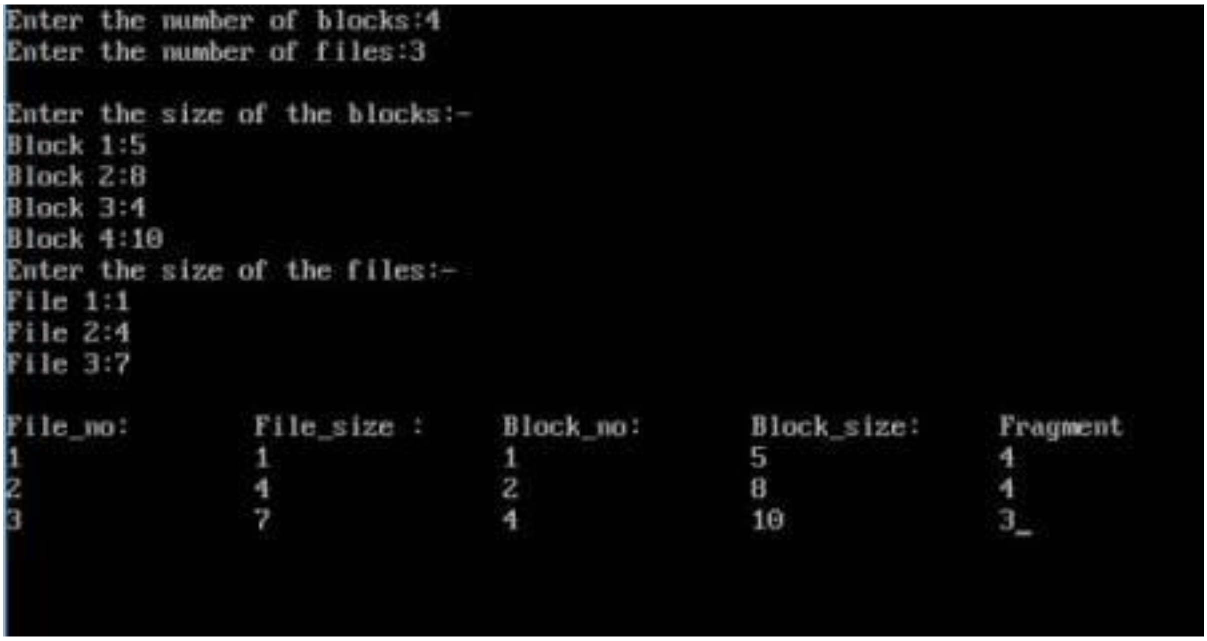
```
 #include <stdio.h>
 #define MAX 25
  int main() {      int frag[MAX], b[MAX],
f[MAX], i, j, nb, nf,  temp;      static int
bf[MAX], ff[MAX];

    printf("Enter the number of blocks: ");
scanf("%d", &nb);     printf("Enter the
number of files: ");     scanf("%d", &nf);

    printf("\nEnter the size of each block:\n");
for (i = 0; i < nb; i++) {         printf("Block
%d: ", i + 1);         scanf("%d", &b[i]);
    }
    printf("\nEnter the size of each file:\n");
for (i = 0; i < nf; i++) {         printf("File
%d: ", i + 1);         scanf("%d", &f[i]);
    }
    for (i = 0; i < nf; i++) {         for (j
= 0; j < nb; j++) {             if (bf[j] !=
1 && b[j] >= f[i]) {                ff[i] =
j;
                frag[i] = b[j] - f[i];
bf[j] = 1;                 break;
            }
```

```
        }
}
    printf("\nFile No\tFile Size\tBlock No\tBlock
Size\tFragment\n");     for (i = 0; i < nf; i++)
{          printf("%d\t%d\t\t%d\t\t%d\t\t%d\n",
               i + 1, f[i], ff[i] + 1, b[ff[i]], frag[i]);
    }
    return 0;
}
```

Sample Output:



```
Enter the number of blocks:4
Enter the number of files:3

Enter the size of the blocks:-
Block 1:5
Block 2:8
Block 3:4
Block 4:10
Enter the size of the files:-
File 1:1
File 2:4
File 3:7

File_no:        File_size :     Block_no:       Block_size:     Fragment
1               1               1               5               4
2               4               2               8               4
3               7               4               10              3_
```

Result:

First Fit memory allocation technique was implemented using C