Ex. No.: 10b)
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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>.
int main ()L
    int n,m fragn [max]  , b[max] , f [max] , i,j,n b,nF.
    State  int bF [max], ff [max];
    printF("Enter numuu of blocks:");
    Scanf (" %d ", &nb);
    PrintF (" \n Enter size of each block: \n");
    for (i=0; i<nb; i++)L
        printf ("Block %d =",i++);
        Scanf (" %d ", & b[j]);
    }
    printf (" \n Enter size of Each file: \n");
    for (i=0; i<nF; i++)L
        printf ("File %d:" i++);
        Scanf (" %d", & f[i]);
    }.
```

```c
for (i=0; i<nF; i++){
    for (j=0; j<nb; j++) {
        if (bF[j] == 0 && b[j] >= f[i]){
            ft[i] =j;
            frag[i]=b[j]-f[i];
            bf[j]=1;
            break;
        }
    }
    if (j==nb){
        ft[i]=-1;
        frag[i]=-1;
    }
}
printf ("\n file No\t File size \t block      No\t block size \t
        fragment \n");
for (i=0; i<nf; i++){
    if (ft[i] != -1){
        printf ("%d \t%d \t%d      \t %d\t %d\n",
            i+1, f[i], ft[i]+1, a[ft[i]], frag[i]);
    }
    else {
        printf ("%d \t%d \t%b  Not allocated \t\t
                \t\n",
                i+1; f[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 3:9
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
2               4               2               8
3               7               4               10
```

Result:

C program for complementation of first fin memory allocation has been executed successfully