

Ex. No.: 10 b

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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 $bf[j] \neq 1$, if so $temp = b[j] - f[i]$
5. Check highest

Program Code: // firstfit.c

```
#include <stdio.h>
#define max 25

void main() {
    int frag[max], b[max], f[max], i, j, nb, nf, temp;
    static int bf[max], ff[max];

    printf("Enter no. of blocks: ");
    scanf("%d", &nb);
    printf("Enter no. of files: ");
    scanf("%d", &nf);
    printf("Enter size of blocks:-\n");
    for (i = 0; i < nb; i++) {
        printf("Block %d", i+1);
        scanf("%d", &b[i]);
    }
    printf("Enter size of files:- ");
    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){
            temp = b[j] - f[i];
            if (temp >= 0){
                ff[i] = j;
                break;
            }
        }
    }
}

```

```

    frag[i] = temp;
    bf[ff[i]] = 1;
}

```

```

for printf("In File No. : \t File Size: \t BlockNo: \t BlockSize: \t Fragment \n");

```

```

for (i=0; i<nf; i++){

```

```

    printf("%.d \t %.d \t %.d \t %.d \t %.d \n", i, f[i], b[ff[i]],
    frag[i]);
}

```


Output: gcc firstfit.c
-o a.out

Enter no. of blocks: 3

Enter no. of files: 4

Enter size of blocks:

Block 1: 3

Block 2: 6

Block 3: 2

Enter size of files:

File 1: 7

File 2: 3

File 3: 6

File 4: 4

File No	File Size	Block No	Block Size	Fragment
0	7	0	3	-5
1	3	1	6	3
2	6	0	3	-4
3	4	0	3	-2

RESULT:

The program has been compiled and executed successfully.