

Ex. No.: 10 b

Date: 30.4.24

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:

```
#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 files");
    scanf("%d", &nf);
    printf("In Enter size of blocks :-\n");
    for(i=1; i<=nb; i++)
    {
        printf("Block %d: ", i);
        scanf("%d", &b[i]);
        bf[i] = 1;
    }
    for(j=1; j<nf; j++)
    {
        printf("File %d: ", j);
        scanf("%d", &f[j]);
        ff[j] = 1;
    }
    for(i=1; i<nb; i++)
    {
        if(bf[i] == 1)
        {
            for(j=1; j<nf; j++)
            {
                if(ff[j] == 1)
                {
                    if(b[i] >= f[j])
                    {
                        temp = b[i] - f[j];
                        b[i] = temp;
                        f[j] = temp;
                    }
                }
            }
        }
    }
    for(i=1; i<nb; i++)
    {
        if(bf[i] == 1)
        {
            printf("Block %d: ", i);
            printf("%d", b[i]);
        }
    }
}
```

```

printf("Enter size of files :-\n");
for(i=1; i<nf; i++)
{
    printf("File ./d%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;
            }
        }
    }
}

```

Output:

Enter no of blocks : 4

Enter no of files : 4

Enter size of blocks :- Block 1 : 6

Block 2 : 5

Block 3 : 4

Block 4 : 3

Enter size of files :- File 1 : 3

File 2 : 2

File 3 : 4

File 4 : 1

File no :	File Size	Blockno	Blocksize	Fragment
1	3	1	6	3
2	2	2	5	3
3	4	3	4	0
4	1	4	3	2

Result: The above commands are executed

successfully

Q/V/24
20/4/24
to
63