

19. Consider a file system where the records of the file are stored one after another both physically and logically. A record of the file can only be accessed by reading all the previous records. Design a C program to simulate the file allocation strategy.

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19.cpp
1 #include<stdio.h>
2 #include<conio.h>
3 #include<stdlib.h>
4 int main()
5 {
6     int f[50], index[50], i, n, st, len, j, c, k, ind, count=0;
7     for(i=0; i<50; i++)
8         f[i]=0;
9     x:printf("Enter the index block: ");
10    scanf("%d", &ind);
11    if(f[ind]!=0)
12    {
13        printf("Enter no of blocks needed and no of files for the index %d on the disk : \n", ind);
14        scanf("%d", &n);
15    }
16    else
17    {
18        printf("File in the index is already allocated \n", ind);
19        goto x;
20    }
21    y: count=0;
22    for(i=0; i<n; i++)
23    {
24        scanf("%d", &index[i]);
25        if(f[index[i]]==0)
26            count++;
27    }
28    if(count==n)
29    {
30        for(j=0; j<n; j++)
31            f[index[j]]=1;
32        printf("Allocated \n");
33        printf("File Indexed \n");
34        for(k=0; k<n; k++)
35            printf("Index %d : %d\n", ind, index[k], f[index[k]]);
36    }
37    else
38    {
39        printf("File in the index is already allocated \n");
40        printf("Enter another file indexed");
41        goto y;
42    }
43    printf("Do you want to enter more file(Yes - 1/No - 0)");
44    scanf("%d", &c);
45    if(c==1)
46        goto x;
47    else
48        exit(0);
49    getch();
50 }

```

```

C:\Users\kalya\OneDrive\Desktop\19.exe
Enter the index block: 4
Enter no of blocks needed and no of files for the index 4 on the disk :
2
3
4
Allocated
File Indexed
4----->3 : 1
4----->4 : 1
Do you want to enter more file(Yes - 1/No - 0)

```