# **34.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.**

**Aim:** To write a C program to simulate the file allocation strategy.

# **Algorithm:**

* 1. Define the structure of a record that will be stored in the file.
  2. Create a file to represent the sequential file.
  3. Write records to the file sequentially, one after the other.
  4. To read a specific record:
  5. Prompt the user for the record number they want to access.
  6. Read and display all records from the beginning of the file up to therequested record.
  7. Continue this process until the user decides to exit.

**Program:** #include<stdio.h> #include<conio.h> #include<stdlib.h>

int main()

{

int f[50], i, st, len, j, c, k, count = 0; for(i=0;i<50;i++)

f[i]=0;

x : count=0;

printf("Enter starting block and length of files: "); scanf("%d%d", &st,&len); for(k=st;k<(st+len);k++)

if(f[k]==0) count++; if(len==count)

{

for(j=st;j<(st+len);j++) if(f[j]==0)

{ f[j]=1;

printf("%d\t%d\n",j,f[j]);

}

if(j!=(st+len-1))

printf("The file is allocated to disk\n");

}

else

printf("The file is not allocated \n");

printf("Do you want to enter more file(Yes - 1/No - 0)"); scanf("%d", &c);

if(c==1) goto x; else exit(0);

getch();

}

Output:

