10.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 program to simulate the file allocation strategy.

#include<stdio.h>

int main()

{

char name[10][30];

int start[10],length[10],num;

printf("Enter the number of files to be allocated\n");

scanf("%d",&num);

int count=0,k,j;

for(int i=0;i<num;i++)

{

printf("Enter the name of the file %d\n",i+1);

scanf("%s",&name[i][0]);

printf("Enter the start block of the file %d\n",i+1);

scanf("%d",&start[i]);

printf("Enter the length of the file %d\n",i+1);

scanf("%d",&length[i]);

for(j=0,k=1;j<num && k<num;j++,k++)

{

if(start[j+1]<=start[j] || start[j+1]>=length[j])

{

}

else

{

count++;

}

}

if(count==1)

{

printf("%s cannot be allocated disk space\n",name[i]);

}

}

printf("File Allocation Table\n");

printf("%s%40s%40s\n","File Name","Start Block","Length");

printf("%s%50d%50d\n",name[0],start[0],length[0]);

for(int i=0,j=1;i<num && j<num;i++,j++)

{

if(start[i+1]<=start[i] || start[i+1]>=length[i])

{

printf("%s%50d%50d\n",name[j],start[j],length[j]);

}

}

return 0;

}

