/\* ------------- Contiguous File Allocation -------------\*/

#include<stdio.h>

#include<string.h>

#include<stdlib.h>

struct freelist

{

int start;

int size;

struct freelist \*next;

};

struct usedlist

{

char fname[10];

int fstart;

int fsize;

};

struct freelist \*head=NULL,\*new=NULL,\*temp,\*prev,\*temp1;

struct usedlist dir\_ent[10];

int dir\_index=0;

main()

{

int ch,i;

char filename[10];

create();

do

{

printf("\n\*\*\*\*\*menu\*\*\*\*\*\*\*\n");

printf("1.Create file\n");

//printf("2. delete File\n");

printf("2. Show Free and Used Block list\n");

printf("3. exit\n");

printf("Enter your choice: ");

scanf("%d",&ch);

switch(ch)

{

case 1: allocate();

break;

case 2: printf("\nThe free list is");

printf("\nStartBlock\tSize\n");

for (temp=head;temp!=NULL; temp=temp->next)

{

printf("%d",temp->start);

printf("\t%d\n",temp->size);

}

printf("The used list is");

printf("\nFilename\tStart\tLength\n");

for(i=0;i<dir\_index;i++)

{

printf("%s\t%d\t\t%d\n",dir\_ent[i].fname,dir\_ent[i].fstart,dir\_ent[i].fsize);

}

break;

case 3: exit(0);

break;

}

}while (ch!=3);

}

create()

{

int no\_of\_blocks;

printf("Enter number of blocks\n");

scanf("%d",&no\_of\_blocks);

new = (struct freelist\*)malloc(sizeof(struct freelist));

head=new;

new->start=0;

new->size=no\_of\_blocks;

new->next=NULL;

}

allocate()

{

int s, allocated=0;

char filename[10];

printf("enter file name \n");

scanf("%s",filename);

printf("enter size of a file in blocks\n");

scanf("%d",&s);

for(temp=head;temp!=NULL;)

{

if(temp->size < s)

temp=temp->next;

else

{

temp->size-=s;

strcpy(dir\_ent[dir\_index].fname,filename);

dir\_ent[dir\_index].fstart=temp->start;

temp->start+=s;

dir\_ent[dir\_index].fsize=s;

dir\_index++;

allocated=1;

break;

}

if (temp==NULL && allocated==0)

printf("Disk space not available\n");

}

}