FUNCS.C:

#include <string.h>

#include <stdlib.h>

#include "menu.h"

#include "funcs.h"

ACCOUNT \*addAccount(ACCOUNT \*array,short \*memoryFlag,short \*numberElements,short submenu,short submenu1,short\*lenghtArray)

{

 if(\*memoryFlag==0)

 {

 array=(ACCOUNT\*)malloc(rows\*sizeof(ACCOUNT));

 if(array==NULL)

 {

 printf("\nNe e sazdaden spisak!");

 exit(1);

 }

 \*memoryFlag=1;

 \*lenghtArray=rows;

 }

 array=submenu==1?addAccountFromKey(array,\*memoryFlag,numberElements,submenu1,lenghtArray):addAccountFromFile(array,\*memoryFlag,numberElements,submenu1,lenghtArray);

 return array;

}

---------------------------------------------------------------

ACCOUNT \*addAccountFromKey(ACCOUNT \*array,short memoryFlag,short \*numberElements,short submenu1,short\*lenghtArray)

{

 ACCOUNT a;

 char word[4];

 char kod1[20];

 if(submenu1==1)

 {

 \*numberElements=0;

 }

 while(printf("Shte vyvedete li nov klient? - (DA/NE)"),strcmp(gets(word),"da")==0)

 {

 if(\*numberElements<\*lenghtArray)

 {

 printf("\nKLIENT NOMER %d: ",\*numberElements+1);

 inputAccount(&a);

strcpy(kod1,a.kod);

 if(isKod(kod1,array,numberElements)==0)

 memcpy(&array[\*numberElements],&a,sizeof(ACCOUNT));

 else{

 printf("Sashtestvyva klient s takav kod!\n");

 (\*numberElements)--;

 }

 }

 else

 {

 \*lenghtArray=\*lenghtArray\*2;

 array=(ACCOUNT\*)realloc(array,\*lenghtArray\*sizeof(ACCOUNT));

 memcpy(&array[\*numberElements],&a,sizeof(ACCOUNT));

 }

 (\*numberElements)++;

 fflush(stdin);

 }

 return array;

}

//////////////////////////////////////////////////////////////////////////////////////////

ACCOUNT \*addAccountFromFile(ACCOUNT \*array,short memoryFlag,short \*numberElements,short submenu1,short\*lenghtArray)

{

 FILE \*fp\_out=NULL;

 char fname[256];

 short n=\*lenghtArray;;

 if(memoryFlag==0)

 {

 printf("\nNe e syzdaden spisak!");

 exit(1);

 }

 fflush(stdin);

 if(submenu1==1)

 {

 \*numberElements=0;

 }

 puts("Vyvedete imeto na faila ot koito shte se chete");

 fflush(stdin);

 gets(fname);

 fp\_out=fopen(fname,"r+b");

 if(fp\_out==NULL)

 {

 printf( "Failat ne moje da bade otvoren\n" );

 exit(1);

 }

 while(1)

 {

 if(\*numberElements<\*lenghtArray)

 {

 if(fread(&array[\*numberElements],sizeof(ACCOUNT),1,fp\_out)!=1)

 {

 if(ferror(fp\_out))

 {

 perror("Gresha pri cheteneto :");

 break;

 }

 if(feof(fp\_out))

 break;

 }

 (\*numberElements)++;

 }

 else

 {

 \*lenghtArray=n=\*lenghtArray\*2;

 array=(ACCOUNT\*)realloc(array,\*lenghtArray\*sizeof(ACCOUNT));

 if(fread(&array[\*numberElements],sizeof(ACCOUNT),1,fp\_out)!=1)

 {

 if(ferror(fp\_out))

 {

 perror("Gresha pri cheteneto :");

 break;

 }

 if(feof(fp\_out))

 break;

 }

 (\*numberElements)++;

 }

 }

 fclose(fp\_out);

 return array;

}

//////////////////////////////////////////////////////////////////////////////////////////

void inputAccount(ACCOUNT \*a)

{

 printf("\nVyvedete koda na smetkata :");

 fflush(stdin);

 scanf("%s",&a->kod);

 printf("\nVyvedete imeto na titulqra:");

 fflush(stdin);

 gets(a->name);

 printf("\nVyvedete sumata po smetkata:");

 fflush(stdin);

 scanf("%f",&a->sum);

 printf("\nVyvedete broq na mesecite prez koito e syshtesvyvala smetkata :");

 fflush(stdin);

 scanf("%d",&a->months);

}

//////////////////////////////////////////////////////////////////////////////////////////

void printArray(ACCOUNT \*array,short n)

{

 short i;

 if(n>0)

 for(i=0;i<n;i++)

 printAccounts(array,i);

 else

 printf("\nSpisaka sys klietni e prazen!\n");

}

/////////////////////////////////////////////////////////////////////////////////////////////////

void printAccounts(ACCOUNT \*array,short i)

{

 printf("\nNomer na smetkata %d",i+1);

 printf("\nKod na smetkata :%s",array[i].kod);

 printf("\nIme na titulqra :%s",array[i].name);

 printf("\nSuma po smetkata :%.4f",array[i].sum);

 printf("\nMeseci prestoi v bankata :%d\n",array[i].months);

}

//////////////////////////////////////////////////////////////////////////////////////////////////

void writeStructFile(ACCOUNT \*array,short numberElements)

{

 FILE \*fp\_in=NULL;

 char fname[256];

 short i;

 if(numberElements>0)

 {

 puts("Vyvedete ime na faila za zapis");

 fflush(stdin);

 if(gets(fname)==NULL)

 printf("Greshka v imeto na faila");

 fp\_in=fopen(fname,"w+b");

 if(fp\_in==NULL)

 {

 printf( "Problem s otvarqneto na faila\n" );

 exit(1);

 }

 for(i=0;i<numberElements;i++)

 {

 fwrite(&array[i],sizeof(ACCOUNT),1,fp\_in);

 if(ferror(fp\_in))

 {

 perror("Greshka ri zapisvaneto :");

 break;

 }

 }

 fclose(fp\_in);

 }

 else

 printf("\nSpisakyt s klienti e prazen!\n");

 system("pause");

}

/////////////////////////////////////////////////////////////////////////////////////////

ACCOUNT \*deleteArray(ACCOUNT \*array,short \*n,short \*p)

{

 if(array!=NULL)

 {

 free(array);

 \*n=0;

 \*p=0;

 printf("\nSpisykyt beshe iztrit!");

 }

 else

 printf("\nNqma nalichen spisak!");

 return array;

}

///////////////////////////////////////////////////////////////////////////////

void findByKod(ACCOUNT \*array,short n)

{

 short i,flag=0;

 char kod[20];

 puts("Vyvedete koda na smetkata za tyrsene :");

 fflush(stdin);

 if(gets(kod)==NULL)

 printf("Greshka pri vyvejdane");

 for(i=0;i<n;i++)

 {

 if(strcmp(array[i].kod,kod)==0)

 {

 printf("\nNameren klient s poreden nomer:");

 printAccounts(array,i);

 flag++;

 }

 }

 if(flag==0)

 printf("\nKlient s takyv kod ne sychtestvyva!");

}

///////////////////////////////////////////////////////////////////////////////

void deleteElement(ACCOUNT \*array,short n,short j)

{

 array[j]=array[n-1];

}

//////////////////////////////////////////////////////////////////////////////////////////

short deleteElementByKod(ACCOUNT \*array,short n)

{

 short i,flag=0;

 char kod[20];

 puts("Vyvedete koda na klienta za iztrivane :");

 fflush(stdin);

 if(gets(kod)==NULL)

 printf("Greshka pri vyvejdaneto");

 for(i=0;i<n;i++)

 {

 if(strcmp(array[i].kod,kod)==0)

 {

 deleteElement(array,n,i);

 flag++;

 }

 }

 if(flag!=0)

 n=n-1;

 else

 printf("\nKlient s takyv kod ne sashtestvyva!");

 return n;

}

/////////////////////////////////////////////////////////////////////////////////////////////

float findavgVal(ACCOUNT \*array,short n)

{

 short i,flag=0;

 float sum=0;

 for(i=0;i<n;i++)

 {

 sum+=array[i].sum;

 }

 return (sum/n);

}

void pravgArray(ACCOUNT \*array,short n)

{

 short i;

 if(n>0)

 for(i=0;i<n;i++)

 {

 if(array[i].sum>findavgVal(array,n))

prAccountsavg(array,i);

 }

 else

 printf("\nSpisaka sys klietni e prazen!\n");

system("pause");

}

void prAccountsavg(ACCOUNT \*array,short i)

{

 printf("\nKod na smetkata :%s",array[i].kod);

 printf("\nIme na titulqra :%s",array[i].name);

}

int isKod(char \*a,ACCOUNT \*array,short n)

{

 int is=1;

 short i;

 for( i=0;i<n;i++)

 {

 if(strcmp(array[i].kod,a)==0)is=0;

 }

return is;

}

FUNCS.H:

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <memory.h>

typedef struct

{

 char kod[20];

 char name[50];

 float sum;

 int months;

 //struct dateOfBirth date\_a;

}ACCOUNT;

//--------------------------------------------

ACCOUNT \*addAccount(ACCOUNT \*array,short \*memoryFlag,short \*countFlag,short submenu,short submenu1,short\*lenghtArray);

ACCOUNT \*addAccountFromKey(ACCOUNT \*array,short memoryFlag,short \*i,short,short\*lenghtArray);

ACCOUNT \*addAccountFromFile(ACCOUNT \*array,short memoryFlag,short \*i,short,short\*lenghtArray);

void inputAccount(ACCOUNT\*);

void printArray(ACCOUNT \*,short );

void printAccounts(ACCOUNT \*array,short i);

void writeStructFile(ACCOUNT \*,short);

ACCOUNT \*deleteArray(ACCOUNT \*array,short \*n,short \*p);

void findBykod(ACCOUNT \*array,short n);

void deleteElement(ACCOUNT \*array,short n,short j);

short deleteElementBykod(ACCOUNT \*array,short n);

float avgVal(ACCOUNT \*array,short n);

void prAccountsavg(ACCOUNT \*array,short i);

void pravgArray(ACCOUNT \*array,short n);

int isKod(char \*a,ACCOUNT \*array,short n);

// MENU.h

short menu( char \*t[]);

// MENU . c

#include <stdio.h>

#include <conio.h>

#include <stdlib.h>

short menu( char \*t[])

{

 int k,i=1;

 char ch;

 system("cls");

 printf ("\n%s\n",t[0]);

 while (t[i])

 printf("\n%d.%s", i-1,t[i++]);

 printf ("\n\nIzberete operaciq:");

 if(i<8)

 i--;

 do

 {

 ch=getch();

 k=ch-'0';

 } while(k<=0 || k >i);

 printf("%c\n",ch);

 return ch-'0';

}

//MAIN.C

#include <stdio.h>

#include <stdlib.h>

#include <windows.h>

#include "menu.h"

#include "funcs.h"

char \*menu\_main[]=

{

 "Program <Bank>\n--------------------------",

 "Dobavqne na nov klient",

 "Zapis na spisaka s klientite vyv fail",

 "Tarsene na klient po kod",

 "Iztrivane na klient po kod",

 "Pokazvane na sipisaka s klienti",

 "Spisak s klienti sys suma po golqma ot srednata" ,

 "Iztrivane na tekushtiq spisak s klienti",

 "Krai",

 NULL

};

char \*menu\_1[]=

{

 "---VHOD---",

 "Ot klaviaturata",

 "Ot fail",

 NULL

};

char \*menu\_1\_1[]=

{

 "IZBOR NA MQSTO ZA DOBAVQNE",

 "Nov spisak s klienti",

 "Kam sashtestvuvashtiya spisak",

 NULL

};

int main()

{

 short mode, submenu,submenu1,memoryFlag=0,numberElements=0,sortFlag=0,lenghtArray=0;

 ACCOUNT \*array=NULL;

 //------------------------------------------------------

 SetConsoleCP(1251);

 SetConsoleOutputCP(1251);

//---------------------------------------

 do

 {

 mode=menu(menu\_main);

 switch (mode)

 {

 case 1: submenu=menu(menu\_1);

 submenu1=menu(menu\_1\_1);

 array=addAccount(array,&memoryFlag,&numberElements,submenu,submenu1,&lenghtArray);break;

 case 2:writeStructFile(array,numberElements);break;

 case 3:if(numberElements)

 {

 findByKod(array,numberElements);system("pause");break;

 }

 else

 { printf("\nSpisaka sys klietni e prazen!\n");system("pause");}

 break;

 case 4:if(numberElements)

 {

 numberElements=deleteElementByKod(array,numberElements);system("pause");break;

 }

 else

 { printf("\nSpisaka sys klietni e prazen!\n");system("pause");}

 break;

 case 5:printArray(array,numberElements);system("pause");break;

 case 7:array=deleteArray(array,&numberElements , &lenghtArray);system("pause");

 case 6:{if(numberElements){pravgArray(array,numberElements);break;}else{printf("Spisakat s klienti e prazen");system("pause");}break;}

 }

 }while (mode != 8);

 array=deleteArray(array,&numberElements, &lenghtArray);

}