#include<stdio.h>

#include<string.h>

#include<ctype.h>

struct degree

{

float Final,semiFinal,practical;

};

struct person

{

int id;

char name[50];

struct degree deg;

};

struct person P[1000];

int indexPro=0;

int CheckEnter()

{

char user[20],pass[20];

printf("\n\n\n\t\tPlease, press UserName & Password :) ");

printf("\n\n\tUser Name: ");

scanf("%s",user);

printf("\n\tPassword: ");

scanf("%s",pass);

if((strcmp(user,"admin")==0)&&(strcmp(pass,"0000")==0))

return 1;

else

return 0;

}

void wirteData();

void SaveSystemData();

void SortFinalData();

//void read(); >> listAllStudent

void AddData();

void CheckSmall();

void CheckCapital();

void LoadSystemData();

void UpdateRow();

void UpdateElement();

void DeleteInfo();

int LocationByID();

int LocationByName();

void MainMenu();

void listAllStudent();

void Display(struct person x);

/\*

void StudentControll();

float countGpa();

\*/

int main()

{

LoadSystemData();

int ch=1;

printf("\n\n\n\n\n\n\t\t\t\t\t Affairs's Students :)\n");

printf("\n\t\t\t\t Faculty Of Computers & Information\n\t\t\t\t\t Helwan University \n\t\t\t\t\t Department\n\t\t\t\t\t ( SWE ) \n");

printf("\n Project By : youssef farag Rashad\n\n\n\n\n");

system("pause");

system("cls");

while(ch!=3){

printf("\n\n\n\n\t\t\t\t\tWelcome To Affairs's Student ...\n");

printf("\n\n\tPress \n\t\t1- Admin\n\t\t2- Student\n\t\t3- Exit\n\n\t\t Ch: ");

scanf("%d",&ch);

if(ch==1)

if(CheckEnter()){

system("cls");

MainMenu();

}

else{

printf("\n\n\t\t\t\tInvalid authentication ...\n\n");

}

if(ch==2)

// StudentControll();

if(ch == 3){

printf( "\n\n\n\n\n\t\t\t\tThanks YOU ...\n\n\n\n");

}

else

printf( "\n\n\n\t\tInvalid Choice\n\n");

}

SaveSystemData();

system("pause");

return 0;

}

void Display(struct person x)

{

printf(" ID , Name OF Student , semiFinal , practical , Final \n");

printf("\n%2d\t%12s\t %18.1f\t\t%0.1f\t\t%0.1f\n",x.id,x.name,x.deg.semiFinal,x.deg.practical,x.deg.Final);

}

void LoadSystemData()

{

struct person x;

FILE \*fptr;

if((fptr=fopen("SWE1.txt","r"))==NULL)

printf("\n Sorry, File Of students Couldn't be Open :) ");

else

{

fscanf(fptr,"%d%s%f%f%f",&x.id,x.name,&x.deg.semiFinal,&x.deg.practical,&x.deg.Final);

while(!feof(fptr)){

P[indexPro++]=x;

fscanf(fptr,"%d%s%f%f%f",&x.id,x.name,&x.deg.semiFinal,&x.deg.practical,&x.deg.Final);

}

}

}

void MainMenu()

{

int ch,m;

printf( "\n\n\n\t$ \t Admin Menu $\n\t\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\n");

printf("\t |\t |\n\t |\t1: List all Students. |\n\t |\t2: Add new Student. |\n\t |\t3: Delete Info. OF Student. |\n\t |\t4: Search by ID. |\n\t |\t5: Search by Name. |\n\t |\t6: Update Student info. |\n\t |\t7: Update Part OF info To Student. |\n\t |\t8: Check Lower Case & Convert To Upper. |\n\t |\t9: Check Upper Case & Convert To Lower. |\n\t |\t10: Sort File. |\n\t |\t0: to Exit |\n" );

printf( "\t\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\n\t$|\t |$\n");

printf( "\t");

printf("\n\n\t\t \*your Choice: ");

scanf("%d",&ch);

switch(ch)

{

case 1:

listAllStudent();

break;

case 2:

AddData();

break;

case 3:

DeleteInfo();

break;

case 4:

m=LocationByID();

if(m!=-1){

Display(P[m]);

}

else{

printf("This ID is not find :) \n ");

}

MainMenu();

break;

case 5:

m=LocationByName();

if(m!=-1){

Display(P[m]);

}

else{

printf("This Name is not find :) \n ");

}

MainMenu();

break;

case 6:

UpdateRow();

break;

case 7:

UpdateElement();

break;

case 8:

CheckSmall();

break;

case 9:

CheckCapital();

break;

case 10:

SortFinalData();

break;

default:

system("cls");

break;

}

SaveSystemData();

}

void SaveSystemData()

{

FILE \*fptr=fopen("SWE1.txt","w");

int i;

for(i=0;i<indexPro;i++){

fprintf(fptr,"%d\t%s\t%0.1f\t%0.1f\t%0.1f\n",P[i].id,P[i].name,P[i].deg.semiFinal,P[i].deg.practical,P[i].deg.Final);

}

fclose(fptr);

}

void SortFinalData()

{

int i,j;

struct person temp;

for(i=0;i<indexPro;i++){

for(j=0;j<indexPro-1-i;j++){

if(P[j].id>P[j+1].id){

temp=P[j];

P[j]=P[j+1];

P[j+1]=temp;

}

}

}

SaveSystemData();

MainMenu();

}

void listAllStudent()

{

struct person x;

FILE \*fptr=fopen("SWE1.txt","r");

fscanf(fptr,"%d%s%f%f%f",&x.id,x.name,&x.deg.semiFinal,&x.deg.practical,&x.deg.Final);

printf(" ID , Name OF Student , semiFinal , practical , Final \n");

while(!feof(fptr)){

printf("\n%2d\t%12s\t %18.1f\t\t%0.1f\t\t%0.1f\n",x.id,x.name,x.deg.semiFinal,x.deg.practical,x.deg.Final);

fscanf(fptr,"%d%s%f%f%f",&x.id,x.name,&x.deg.semiFinal,&x.deg.practical,&x.deg.Final);

}

printf("\n\n\tPress Enter To return to Main Menu :) \n");

getchar();

getchar();

MainMenu();

}

void AddData()

{

int ch;

char c;

printf("Are you wanna add New Student ? (y/n)\nCh: ");

getchar();

scanf("%c",&c);

if(c=='y'){

printf(" ID , Name OF Student , semiFinal , practical , Final \n");

scanf("%d%s%f%f%f",&P[indexPro].id,P[indexPro].name,&P[indexPro].deg.semiFinal,&P[indexPro].deg.practical,&P[indexPro].deg.Final);

indexPro++;

SaveSystemData();

}

printf("press 1 To Add Info. Again OR 0 To exit & return to Main Menu \n Ch: ");

scanf("%d",&ch);

if(ch==1)

AddData();

else if(ch==0)

MainMenu();

else

printf("\n\n\n\tInvalid Choice ...\n");

}

void CheckSmall()

{

int i;

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

if(islower(P[i].name[0]))

P[i].name[0]=toupper(P[i].name[0]);

SaveSystemData();

MainMenu();

}

void CheckCapital()

{

int i;

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

if(isupper(P[i].name[0]))

P[i].name[0]=tolower(P[i].name[0]);

SaveSystemData();

MainMenu();

}

void UpdateRow()

{

int ch;

char c;

int m=LocationByID();

if(m!=-1){

Display(P[m]);

printf("Are you wanna Update Student ? (y/n)\nCh: ");

getchar();

scanf("%c",&c);

if(c=='y'||c=='Y'){

printf(" ID , Name OF Student , semiFinal , practical , Final \n");

scanf("%d%s%f%f%f",&P[m].id,P[m].name,&P[m].deg.semiFinal,&P[m].deg.practical,&P[m].deg.Final);

}

SaveSystemData();

}

else{

printf("Invalid ID ...\n");

}

printf("press 1 To Search again & Update OR 0 To Return to Main Menu \nCh: ");

scanf("%d",&ch);

if(ch==1)

UpdateRow();

else

MainMenu();

}

void UpdateElement()

{

char c;

int m=LocationByID(),ch;

if(m!=-1){

Display(P[m]);

printf("Are you wanna Update Info. From This Student ? (y/n)\nCh: ");

getchar();

scanf("%c",&c);

if(c=='y'||c=='Y'){

printf("\nPress Number to Edit\n1- ID \n2- Name\n3- Degree in Semi-Final\n4- Degree in Practical\n5- Degree in Final .\nCh: ");

scanf("%d",&ch);

switch(ch)

{

case 1:

printf("\nEnter New ID: ");

scanf("%d",&P[m].id);

break;

case 2:

printf("Enter New Name: ");

scanf("%s",P[m].name);

break;

case 3:

printf("Enter New Degree in Semi-Final: ");

scanf("%f",&P[m].deg.semiFinal);

break;

case 4:

printf("Enter New Degree in Practical: ");

scanf("%f",&P[m].deg.practical);

break;

case 5:

printf("Enter New Degree in Final: ");

scanf("%f",&P[m].deg.Final);

break;

default:

printf("Incorrect ");

}

SaveSystemData();

}

}

else{

printf("Invalid ID ...\n ");

}

printf("press 1 To Search again & Update OR 0 To Return to Main Menu \nCh: ");

scanf("%d",&ch);

if(ch==1)

UpdateElement();

else

MainMenu();

}

void DeleteInfo()

{

int ch;

char c;

int m=LocationByID();

if(m!=-1){

Display(P[m]);

printf("Are you wanna Delete Student ? (y/n)\nCh: ");

getchar();

scanf("%c",&c);

if(c=='y'||c=='Y'){

int i;

for(i=m;i<indexPro;i++){

P[i]=P[i+1];

}

indexPro--;

}

SaveSystemData();

}

else

printf("\n\tInvalid ID ...\n\n");

printf("press 1 To Delete Info. Again OR 0 To exit & return to Main Menu \n Ch: ");

scanf("%d",&ch);

if(ch==1)

DeleteInfo();

else if(ch==0)

MainMenu();

else

printf("\n\n\n\tInvalid Choice ...\n");

}

int LocationByID()

{

int key,i;

printf("Please , Press ID OF Student: ");

scanf("%d",&key);

for(i=0;i<indexPro;i++){

if(key==P[i].id){

return i;

}

}

return -1;

}

int LocationByName()

{

char key[50];

int i;

printf("Please , Press Name OF Student: ");

scanf("%s",key);

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

if(strcmp(key,P[i].name)==0)

return i;

return -1;

}