#include <stdio.h>

#include <stdlib.h>

#include <string.h>

typedef struct

{

char stnumber[10];

char stname[20];

float quizz1;

float quizz2;

float midterm;

float final;

float total;

float percent;

}student;

void displayheading();

void displaymenu(){

printf("==================================================\n");

printf(" MENU \n");

printf("==================================================\n");

printf(" 1.Add student records\n");

printf(" 2.View all student records\n");

printf(" 3.Sort records by TOTAL\n");

printf(" 4.Find a student by merit\n");

}

void add\_rec(student st[],int \*itemcount){

again:

printf("\nEnter student's ID:");

scanf("%s",&st[\*itemcount].stnumber);

printf("Enter student's Name:");

scanf("%s",&st[\*itemcount].stname);

printf("Enter student's quizz1 score:");scanf("%f",&st[\*itemcount].quizz1);

printf("Enter student's quizz2 score:");scanf("%f",&st[\*itemcount].quizz2);

printf("Enter student's mid term score:");scanf("%f",&st[\*itemcount].midterm);

printf("Enter student's final score:");scanf("%f",&st[\*itemcount].final);

st[\*itemcount].total=st[\*itemcount].quizz1+st[\*itemcount].quizz2+st[\*itemcount].midterm+st[\*itemcount].final;

st[\*itemcount].percent=(st[\*itemcount].midterm+st[\*itemcount].final)/200\*100;

++(\*itemcount);

}

void viewall(student st[], int itemcount){

int i=0;

displayheading();

while(i<itemcount){

if(st[i].stnumber!=""){

printf("%-5s",st[i].stnumber);

printf("%-17s",st[i].stname);

printf("%-6.1f",st[i].quizz1);

printf("%-6.1f",st[i].quizz2);

printf("%-6.1f",st[i].midterm);

printf("%-7.1f",st[i]. final);

printf("%-4.1f",st[i].total);

printf("%-4.1f",st[i].percent);

printf("\n");

}

i=i+1;

}

}

void displayheading(){

printf("ID NAME Q1 Q2 Mi Fi TOTAL PERCENT \n");

printf("==================================================\n");

}

//function to sort records by name

void bubblesort(student dataset[], int n)

{

int i, j;

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

for (j = n - 1; j > i; j--)

if (dataset[j].total > dataset[j - 1].total )

{

student temp = dataset[j];

dataset[j] = dataset[j - 1];

dataset[j - 1] = temp;

}

viewall(dataset, n);

}

void alp(student dataset[], int n)

{

int i, j;

for (i = 0; i < n-1; i++)

for (j = i+1; j <n; j++)

if (strcmp(dataset[i].stname,dataset[j].stname)>0)

{

student temp = dataset[i];

dataset[i] = dataset[j];

dataset[j] = temp;

}

viewall(dataset,n);

}

//the main function

int main()

{

student st[20];

int itemcount=0;

//show menu

displaymenu();

int yourchoice;

char confirm;

do

{

printf("Enter your choice(1-3):");

scanf("%d",&yourchoice);

switch(yourchoice){

case 1:add\_rec(st, &itemcount);break;

case 2:alp(st, itemcount);break;

case 3:bubblesort(st, itemcount);break;

default:printf("invalid\n");

}

printf("Press y or Y to continue:");

scanf("%s",&confirm);

}while(confirm=='y'||confirm=='Y');

system("PAUSE");

return EXIT\_SUCCESS;

}