#include<iostream>

#include<string>

#include<conio.h>

#include<stdlib.h>

using namespace std;

int main();

void show\_data(int searchkey); //function used to show data to end-user.

void get\_data(int i); //function used to obtain data from end-user.

void search\_student(int searchkey);

void add\_student(); //This function is used to add record of new student.

void edit\_student(int idnumber); //function is used to edit existing record.

void fullscreen();

int ts;

struct student //Structure student is made to store student attributes.

{

int rollno;

string name;

string fname;

string cell;

string dob;

string address;

};

student rec[50]; //This is basic array of defined structure to sore data.

int main()

{

system("CLS");

system("color B1");

int choice; //int variable used to determine which operation user want to do.

int idnumber; //int variable used to record ID number whih user want to edit.

int searchkey; //int variable to store student roll\_no by which user can search.

cout<<"Enter The Total Number of Student(s)- Max 50: ";

cin>>ts;

while(ts--)

{

cout<<"\n\t\tWhat do you want to do?"<<endl;

cout<<"\t\t----------------------"<<endl;

cout<<"\t\t1-Add student"<<endl;

cout<<"\t\t2-Edit student"<<endl;

cout<<"\t\t3-Search student"<<endl;

cout<<"\t\t4-Quit Program"<<endl;

cout<<"\t\t----------------------"<<endl;

cout<<"Enter your choice: ";

cin>>choice;

switch(choice)

{

case 1: //If user presses 1 then student adding module would be displayed.

add\_student();

break;

case 2: //If there are no records in array then it will ask the user to input records first.

if(rec[0].rollno==0)

{

cout<<"Please Add sudents first."<<endl;

system("pause");

main();

}

else //If records are present in array then it will show table.

{

cout<<endl;

cout<<"--------------------------------------------------------------------------------"<<endl;

cout<<"---------------------------Student record Table---------------------------------"<<endl;

cout<<"--------------------------------------------------------------------------------"<<endl;

cout<<"ID "<<"Roll "<<"Name "<<"Father\tCell no. "<<"DOB "<<"Address\n\n";

cout<<"--------------------------------------------------------------------------------"<<endl;

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

{

show\_data(i); //funtion is called with index value to show data.

}

cout<<"--------------------------------------------------------------------------------"<<endl;

cout<<"Which ID number your want to edit: ";

cin>>idnumber; //Asking the user at which ID he wants to make a change.

if(idnumber>ts || idnumber<0) //Validating the ID number.

{

cout<<"\nInvalid ID Number."<<endl;

}

else

{

edit\_student(idnumber); //Passing ID number to Edit Function.

}

}

break;

case 3:

if(rec[0].rollno==0) //If no record exist then ask the user o enter records first.

{

cout<<"Please Add sudents first."<<endl;

system("pause");

main(); //Return to main so user can input new record.

}

else

{

cout<<"Enter roll\_no of student you want to search: ";

cin>>searchkey; //roll\_no as the search key can be entered by user.

search\_student(searchkey);}

break;

case 4:

return 0; //Terminating the records.

break;

default: //Default value for ivalid Input.

cout<<"Invalid number."<<endl;

system("pause");

main();

}

}

return 0;

}

void get\_data(int i) //Function for receiving data from user and populatiing the variables with values.

{

cout<<"Enter student roll number in format(1XXX): ";

cin>>rec[i].rollno;

cout<<"Enter student name: ";

cin>>rec[i].name;

cout<<"Enter student's Father name: ";

cin>>rec[i].fname;

cout<<"Enter student's cell phone number: ";

cin>>rec[i].cell;

cout<<"Enter student's Date of Birth(dd/mm/yyyy): ";

cin>>rec[i].dob;

cout<<"Enter student's Address: ";

cin>>rec[i].address;

}

void show\_data(int searchkey) //Function for showing data on the screen.

{

int i=searchkey;

cout<<i<<" ";

cout<<rec[i].rollno<<" ";

cout<<rec[i].name<<" ";

cout<<rec[i].fname<<"\t";

cout<<rec[i].cell<<" ";

cout<<rec[i].dob<<" ";

cout<<rec[i].address<<"\n\n";

}

void search\_student(int searchkey)

{

for(int i=0;i<=ts;i++) //Loop thrugh complete array.

{

if(rec[i].rollno==searchkey) //If roll number matches to search term.

{

cout<<"ID "<<"Roll "<<"Name "<<"Father\tCell no. "<<"DOB "<<"Address\n\n";

show\_data(i); //A function is used inside another function.

}

}

}

void add\_student() //This function is used to add record of new student.

{

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

{

get\_data(i); //Loop was processed 5 times to get input for 5 students.

}

system("CLS");

cout<<endl;

cout<<"--------------------------------------------------------------------------------"<<endl;

cout<<"---------------------------Student record Table---------------------------------"<<endl;

cout<<"--------------------------------------------------------------------------------"<<endl;

cout<<"ID "<<"Roll "<<"Name "<<"Father\tCell no. "<<"DOB "<<"Address\n\n";

cout<<"--------------------------------------------------------------------------------"<<endl;

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

{

show\_data(i); //Loop was processed for 5 times to show obtained records.

}

cout<<"--------------------------------------------------------------------------------"<<endl;

cout<<"---------------------------------FINISH-----------------------------------------"<<endl;

cout<<"--------------------------------------------------------------------------------"<<endl;

system("pause");

main(); //Return to main function to again show menu.

}

void edit\_student(int idnumber) //function is used to edit existing record.

{

for(int i=0;i<=ts;i++) //Loop is started.

{

if(idnumber==i) //Through loop every value is compared with search term.

{

cout<<"\nExisted information about this record.\n\n";

cout<<"--------------------------------------------------------------------------------"<<endl;

cout<<"ID "<<"Roll "<<"Name "<<"Father\tCell no. "<<"DOB "<<"Address\n\n";

cout<<"--------------------------------------------------------------------------------"<<endl;

show\_data(i); //Load information for existing record.

cout<<"\n\nEnter new data for above shown record.\n\n";

get\_data(i); //Inputing data for that specific record.

cout<<"\n\nRecord updated successfully."<<endl;

system("pause");

main(); //Return to main function.

}

}

}