#include <fstream>

#include <iostream>

#include <vector>

#include <iomanip>

using namespace std;

class Student

{

public:

void personal\_caller(char flag)

{

if(flag == 'A')

{

add\_student(flag);

}

else if(flag == 'B')

{

view\_data();

}

else if(flag == 'C')

{

edit\_student(flag);

}

else if(flag == 'D')

{

delete\_student();

}

}

void add\_student(char flag)

{

Table.clear();

Column.clear();

ifstream READ("DATA.txt");

int counter = 6;

string text, place;

getline(READ, text);

while(!READ.eof())

{

for(int i = 0; i < text.length(); i++)

{

if(text[i] != '\*')

{

switch(counter)

{

case 6:

place += text[i];

break;

case 5:

place += text[i];

break;

case 4:

place += text[i];

break;

case 3:

place += text[i];

break;

case 2:

place += text[i];

break;

case 1:

place += text[i];

counter = 6;

break;

}

}

else

{

Column.push\_back(place);

place = "";

counter--;

}

}

Table.push\_back(Column);

Column.clear();

getline(READ, text);

}

READ.close();

for(int i = 0; i < Table.size(); i++)

{

for(int j = 0; j < 6; j++)

{

switch(j)

{

case 0:

name = Table[i][j];

break;

case 1:

gender = Table[i][j];

break;

case 2:

matric = Table[i][j];

break;

case 3:

hp = Table[i][j];

break;

case 4:

dob = Table[i][j];

break;

case 5:

address = Table[i][j];

break;

}

}

cout << setw(30) << name

<< setw(10) << gender

<< setw(25) << matric

<< setw(20) << hp

<< setw(20) << dob

<< setw(50) << address << endl;

}

ofstream WRITE("DATA.txt");

WRITE.close();

while(flag != 'N')

{

Column.clear();

cout << "\nENTER NAME: ";

cout << "";

getline(cin, name);

Column.push\_back(name);

cout << "ENTER GENDER: ";

cout << "";

getline(cin, gender);

Column.push\_back(gender);

cout << "ENTER MATRIC: ";

cout << "";

getline(cin, matric);

Column.push\_back(matric);

cout << "ENTER HP: ";

cout << "";

getline(cin, hp);

Column.push\_back(hp);

cout << "ENTER DOB: ";

cout << "";

getline(cin, dob);

Column.push\_back(dob);

cout << "ENTER ADDRESS: ";

cout << "";

getline(cin, address);

Column.push\_back(address);

Table.push\_back(Column);

cout << "\nDO YOU WANT TO ADD MORE? (Y/N): ";

cin >> flag;

cin.ignore();

}

WRITE.open("DATA.txt");

for(int i = 0; i < Table.size(); i++)

{

for(int j = 0; j < 6; j++)

{

WRITE << Table[i][j] << '\*';

}

WRITE << endl;

}

WRITE.close();

}

void view\_data()

{

Table.clear();

Column.clear();

ifstream READ("DATA.txt");

int counter = 6;

string text, place;

getline(READ, text);

while(!READ.eof())

{

for(int i = 0; i < text.length(); i++)

{

if(text[i] != '\*')

{

switch(counter)

{

case 6:

place += text[i];

break;

case 5:

place += text[i];

break;

case 4:

place += text[i];

break;

case 3:

place += text[i];

break;

case 2:

place += text[i];

break;

case 1:

place += text[i];

counter = 6;

break;

}

}

else

{

Column.push\_back(place);

place = "";

counter--;

}

}

Table.push\_back(Column);

Column.clear();

getline(READ, text);

}

READ.close();

for(int i = 0; i < Table.size(); i++)

{

for(int j = 0; j < 6; j++)

{

switch(j)

{

case 0:

name = Table[i][j];

break;

case 1:

gender = Table[i][j];

break;

case 2:

matric = Table[i][j];

break;

case 3:

hp = Table[i][j];

break;

case 4:

dob = Table[i][j];

break;

case 5:

address = Table[i][j];

break;

}

}

cout << setw(30) << name

<< setw(10) << gender

<< setw(25) << matric

<< setw(20) << hp

<< setw(20) << dob

<< setw(50) << address << endl;

}

Table.clear();

Column.clear();

}

void edit\_student(char flag)

{

Table.clear();

Column.clear();

ifstream READ("DATA.txt");

int counter = 6;

string text, place;

getline(READ, text);

while(!READ.eof())

{

for(int i = 0; i < text.length(); i++)

{

if(text[i] != '\*')

{

switch(counter)

{

case 6:

place += text[i];

break;

case 5:

place += text[i];

break;

case 4:

place += text[i];

break;

case 3:

place += text[i];

break;

case 2:

place += text[i];

break;

case 1:

place += text[i];

counter = 6;

break;

}

}

else

{

Column.push\_back(place);

place = "";

counter--;

}

}

Table.push\_back(Column);

Column.clear();

getline(READ, text);

}

READ.close();

for(int i = 0; i < Table.size(); i++)

{

for(int j = 0; j < 6; j++)

{

switch(j)

{

case 0:

name = Table[i][j];

break;

case 1:

gender = Table[i][j];

break;

case 2:

matric = Table[i][j];

break;

case 3:

hp = Table[i][j];

break;

case 4:

dob = Table[i][j];

break;

case 5:

address = Table[i][j];

break;

}

}

cout << setw(30) << name

<< setw(10) << gender

<< setw(25) << matric

<< setw(20) << hp

<< setw(20) << dob

<< setw(50) << address << endl;

}

ofstream WRITE("DATA.txt");

WRITE.close();

cout << "ENTER MATRIC NUMBER YOU WANT TO EDIT: " << endl;

cin >> matric;

cin.ignore();

for(int i = 0; i < Table.size(); i++)

{

if(Table[i][2] != matric)

edit.push\_back(Table[i]);

}

for(int i = 0; i < edit.size(); i++)

{

for(int j = 0; j < 6; j++)

{

switch(j)

{

case 0:

name = edit[i][j];

break;

case 1:

gender = edit[i][j];

break;

case 2:

matric = edit[i][j];

break;

case 3:

hp = edit[i][j];

break;

case 4:

dob = edit[i][j];

break;

case 5:

address = edit[i][j];

break;

}

}

cout << setw(30) << name

<< setw(10) << gender

<< setw(25) << matric

<< setw(20) << hp

<< setw(20) << dob

<< setw(50) << address << endl;

}

while(flag != 'N')

{

Column.clear();

cout << "\nENTER NAME: ";

cout << "";

getline(cin, name);

Column.push\_back(name);

cout << "ENTER GENDER: ";

cout << "";

getline(cin, gender);

Column.push\_back(gender);

cout << "ENTER MATRIC: ";

cout << "";

getline(cin, matric);

Column.push\_back(matric);

cout << "ENTER HP: ";

cout << "";

getline(cin, hp);

Column.push\_back(hp);

cout << "ENTER DOB: ";

cout << "";

getline(cin, dob);

Column.push\_back(dob);

cout << "ENTER ADDRESS: ";

cout << "";

getline(cin, address);

Column.push\_back(address);

edit.push\_back(Column);

cout << "EDIT SUCCESSFULLY!";

flag = 'N';

}

WRITE.open("DATA.txt");

for(int i = 0; i < edit.size(); i++)

{

for(int j = 0; j < 6; j++)

{

WRITE << edit[i][j] << '\*';

}

WRITE << endl;

}

WRITE.close();

Table.clear();

edit.clear();

}

void delete\_student()

{

Table.clear();

Column.clear();

edit.clear();

ifstream READ("DATA.txt");

int counter = 6;

string text, place;

getline(READ, text);

while(!READ.eof())

{

for(int i = 0; i < text.length(); i++)

{

if(text[i] != '\*')

{

switch(counter)

{

case 6:

place += text[i];

break;

case 5:

place += text[i];

break;

case 4:

place += text[i];

break;

case 3:

place += text[i];

break;

case 2:

place += text[i];

break;

case 1:

place += text[i];

counter = 6;

break;

}

}

else

{

Column.push\_back(place);

place = "";

counter--;

}

}

Table.push\_back(Column);

Column.clear();

getline(READ, text);

}

READ.close();

for(int i = 0; i < Table.size(); i++)

{

for(int j = 0; j < 6; j++)

{

switch(j)

{

case 0:

name = Table[i][j];

break;

case 1:

gender = Table[i][j];

break;

case 2:

matric = Table[i][j];

break;

case 3:

hp = Table[i][j];

break;

case 4:

dob = Table[i][j];

break;

case 5:

address = Table[i][j];

break;

}

}

cout << setw(30) << name

<< setw(10) << gender

<< setw(25) << matric

<< setw(20) << hp

<< setw(20) << dob

<< setw(50) << address << endl;

}

ofstream WRITE("DATA.txt");

WRITE.close();

cout << "ENTER MATRIC NUMBER YOU WANT TO DELETE: ";

cin >> matric;

cin.ignore();

for(int i = 0; i < Table.size(); i++)

{

if(Table[i][2] != matric)

edit.push\_back(Table[i]);

}

for(int i = 0; i < edit.size(); i++)

{

for(int j = 0; j < 6; j++)

{

switch(j)

{

case 0:

name = edit[i][j];

break;

case 1:

gender = edit[i][j];

break;

case 2:

matric = edit[i][j];

break;

case 3:

hp = edit[i][j];

break;

case 4:

dob = edit[i][j];

break;

case 5:

address = edit[i][j];

break;

}

}

cout << setw(30) << name

<< setw(10) << gender

<< setw(25) << matric

<< setw(20) << hp

<< setw(20) << dob

<< setw(50) << address << endl;

}

}

private:

string name = "", dob = "", address = "", hp = "", matric = "", gender = "";

vector<string> Column;

vector<vector<string>> Table;

vector<vector<string>> edit;

};

int main()

{

int choice;

char flag = 'X';

Student e;

cout << "\n\*\*\*\*\*\*\*\*\*\*\*\*" << endl;

cout << "\* PERSONAL MANAGEMENT SYSTEM \*" << endl;

cout << "\*\*\*\*\*\*\*\*\*\*\*\*" << endl;

cout << "MENU : \n" << endl;

cout << "PERSONAL DATA\t [1]" << endl;

cout << "REPORT CARD\t [2]" << endl;

cout << "SCHEDULE\t [3]" << endl;

cout << "EXIT \t\t [4]\n" << endl;

cout << "ENTER YOUR CHOICE : ";

cin >> choice;

while(choice != 4)

{

if(choice == 999)

{

cout << "\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" << endl;

cout << "\* PERSONAL MANAGEMENT SYSTEM \*" << endl;

cout << "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" << endl;

cout << "MENU : \n" << endl;

cout << "PERSONAL DATA\t [1]" << endl;

cout << "REPORT CARD\t [2]" << endl;

cout << "SCHEDULE\t [3]" << endl;

cout << "EXIT \t\t [4]\n" << endl;

cout << "ENTER YOUR CHOICE : ";

cin >> choice;

}

else if(choice == 1)

{

cout << "\nPERSONAL DATA : \n" << endl;

cout << "ADD RECORD \t\t [A]" << endl;

cout << "VIEW RECORD \t\t [B]" << endl;

cout << "EDIT RECORD \t\t [C]" << endl;

cout << "DELETE RECORD \t\t [D]" << endl;

cout << "SAVE \t\t\t [E]" << endl;

cout << "\nENTER YOUR CHOICE : ";

cin >> flag;

cin.ignore();

if(flag == 'E')

choice = 999;

e.personal\_caller(flag);

}

}

return 0;

}