#include <iostream>

#include <string>

#include <fstream>

#include <cstring>

#include <stdlib.h>

#include <stdio.h>

using namespace std;

int bookAppointment()

{

cout<<"\n ----- Book Your Appointment ---- \n";

cout<<"\n ----- Availbale slots ---- \n";

ifstream read;

read.open("appointment.dat");

int hoursbook = 8;

int arr[13] = {0,0,0,0,0,0,0,0,0,0,0,0,0};

int recordFound =0;

if(read)

{

string line;

char key = 'A';

int i = 9;

while(getline(read, line)) {

char temp = line[0];

int index = (temp - 65);

arr[index]=1;

recordFound = 1;

}

if(recordFound == 1)

{

cout<<"\n Appointment Summary by hours:";

char key = 'A';

int hours = 9;

for(int i = 0; i<=12; i++)

{

if(i == 0){

if(arr[i] == 0)

cout<<"\n "<<key<<"-> 0"<<hours<<" - Available";

else

cout<<"\n "<<key<<"-> 0"<<hours<<" - Booked";

}

else

{

if(arr[i] == 0)

cout<<"\n "<<key<<"->"<<hours<<" - Available";

else

cout<<"\n "<<key<<"->"<<hours<<" - Booked";

}

hours++; key++;

}

}

read.close();

}

if(recordFound == 0){

cout<<"\n Appointment Available for following hours :";

char key = 'A';

for(int i = 9; i<=21; i++)

{

if(i==9)

cout<<"\n "<<key<<" -> 0"<<i<<" - Available";

else

cout<<"\n "<<key<<" -> "<<i<<" - Available";

key++;

}

}

char choice;

cout<<"\n\n Input your choice : ";

cin>>choice;

if( !(choice >= 'A' && choice <='Z'))

{

cout<<"\n Error : Invalid Selection";

cout<<"\n Please selction correct value from menu A- Z";

cout<<"\n Press any key to continue";

getchar();getchar();

bookAppointment();

}

int index = (choice-65 );

int isBooked = 1;

if(arr[index] == 0)

isBooked = 0;

if(isBooked ==1)

{

cout<<"\n Error : Appointment is already booked for this Hour";

cout<<"\n Please select different time !!";

cout<<"\n Press any key to continue!!";

getchar();getchar();

bookAppointment();

}

string name;

cout<<"\n Enter your first name:";

cin>>name;

ofstream out;

out.open("appointment.dat", ios::app);

if(out){

out<<choice<<":"<<name.c\_str()<<"\n";

out.close();

cout<<"\n Appointment booked for Hours : "<< (choice-65) + 9 <<" successfully !!";

}

else

{

cout<<"\n Error while saving booking";

}

cout<<"\n Please any key to continue..";

getchar(); getchar();

return 0;

}

int existingAppointment()

{

cout<<"\n ----- Appointments Summary ---- \n";

ifstream read;

read.open("appointment.dat");

int hoursbook = 8;

int arr[13] = {0,0,0,0,0,0,0,0,0,0,0,0,0};

int recordFound =0;

if(read)

{

string line;

char key = 'A';

int i = 9;

while(getline(read, line)) {

char temp = line[0];

int index = (temp - 65);

arr[index]=1;

recordFound = 1;

}

if(recordFound == 1)

{

cout<<"\n Appointment Summary by hours:";

char key = 'A';

int hours = 9;

for(int i = 0; i<=12; i++)

{

if(arr[i] == 0)

cout<<"\n "<<key<<"->"<<hours<<" - Available";

else

cout<<"\n "<<key<<"->"<<hours<<" - Booked";

hours++; key++;

}

}

read.close();

}

else

{

char key = 'A';

for(int i = 9; i<=21; i++)

{

if(i==9)

cout<<"\n "<<key<<" -> 0"<<i<<" - Available";

else

cout<<"\n "<<key<<" -> "<<i<<" - Available";

key++;

}

}

cout<<"\n Please any key to continue..";

getchar(); getchar();

return 0;

}

int main() {

while(1)

{

cout<<"\t\t\tDoctor Appointment System\n";

cout<<"-----------------------------------\n\n";

cout<<"1. Book Appointment\n";

cout<<"2. Check Existing Appointment\n";

cout<<"0. Exit\n";

int choice;

cout<<"\n Enter you choice: ";

cin>>choice;

switch(choice)

{

case 1: bookAppointment(); break;

case 2: existingAppointment(); break;

case 0: exit(0);

default: cout<<"\n Invalid choice. Enter again ";

getchar();

}

}

return 0;

}