// **VerifyDateFunctions.cpp** : Defines the entry point for the console application.

//

#include "stdafx.h"

#include <iostream>

#include "VerifyDate.h"

using namespace std;

int main() {

int day, month, year;

cout << "Enter a month (eg. 04): ";

cin >> month;

cout << "Enter a day (eg. 09): ";

cin >> day;

cout << "Enter a year (eg. 2018): ";

cin >> year;

cout << endl;

VerifyDate date(day, month, year);

if (date.CheckDate()) {

date.PrintDate();

cout << " is a valid date." << endl;

}

else {

date.PrintDate();

cout << " is an invalid date." << endl;

}

}

**VerifyDate.h**

#include <iostream>

using namespace std;

#pragma once

class VerifyDate {

private:

int month;

int day;

int year;

bool IsLeap(int);

public:

VerifyDate();

~VerifyDate();

VerifyDate(int, int, int);

int getDay();

int getMonth();

int getYear();

void setDay(int);

void setMonth(int);

void setYear(int);

void PrintDate();

bool CheckDate();

};

**VerifyDate.cpp**

#include "stdafx.h"

#include <iostream>

#include "VerifyDate.h"

using namespace std;

VerifyDate::VerifyDate() {

day = 1;

month = 1;

year = 2000;

}

VerifyDate::~VerifyDate()

{

}

VerifyDate::VerifyDate(int dayParam, int monthParam, int yearParam) {

day = dayParam;

month = monthParam;

year = yearParam;

}

int VerifyDate::getDay() {

return day;

}

int VerifyDate::getMonth() {

return month;

}

int VerifyDate::getYear() {

return year;

}

void VerifyDate::setDay(int dayParam) {

day = dayParam;

}

void VerifyDate::setMonth(int monthParam) {

month = monthParam;

}

void VerifyDate::setYear(int yearParam) {

year = yearParam;

}

void VerifyDate::PrintDate() {

cout << month << "/" << day << "/" << year;

}

bool VerifyDate::IsLeap(int y) {

return ((!(year % 4) && year % 100) || !(year % 400));

}

bool VerifyDate::CheckDate() {

int numOfDays;

if (month == 1 || month == 3 || month == 5 || month == 7 || month == 8 || month == 10 || month == 12) {

numOfDays = 31;

}

if (month == 4 || month == 6 || month == 9 || month == 11) {

numOfDays = 30;

}

if (month == 2) {

if (IsLeap(year)) {

numOfDays = 29;

}

else {

numOfDays = 28;

}

}

if (month < 1 || month > 12) {

return false;

} else if (day <= 0 || day > numOfDays) {

return false;

} else if (year < 1850 || year > 2100) {

return false;

}

return true;

}