

Another Brief Class Exercise

Since we are all still getting used to the idea of using objects and classes, here is another small exercise that involves the creation of a class. This exercise was done in class, with instructor feedback, but the classroom students.

For this exercise, you must create a class that is called Flight. The class has two methods, one is called set() and the other is called describe(). The set() method takes four parameters for flight number (an integer), destination city (a string), departure time (a string), and departure gate (a string). The describe method takes no parameters and outputs a string (to cout) that looks like the one that appears in the comment below. The message announces the flight number, destination, departure time, and gate, in a well formatted sentence. Both the set() and the describe() methods return nothing (void). The class will need to have its own instance variables to remember the values from set() so that it can output the correct information when describe() is called.

A complete .cpp file appears below to exercise your Flight class. In the code below, the main() function calls another function, called runTravel(). The runTravel function creates an array of 3 Flight objects, sets each with a different itinerary, and then calls describe() on each flight object, in sequence. The array of Flight objects is named "leg."

This assignment is worth 10 points and is graded based on:

1. Creating a class in two files (.cpp and .h) that is used by the runTravel() function.
2. That you use the file below as is, with no changes.
3. That you create private instance variables in your class for the 4 pieces of information.
4. That you use the Project -> Add Class and leave the constructor and destructor as created.
5. That you use consistent and proper indenting and include a comment header in both the .h and .pp files.
6. That your describe() method outputs correct information for the Rome, Vienna, and Moscow Flight legs.

```
/*
 * File:    Week10.cpp
 * Purpose: Run a small assignment where students create the Flight class
 * Author:  Michael Van Hilst (your name in the Flight .h and .cpp files)
 */
#include <iostream>
#include "Flight.h"
using namespace std;

void runTravel() {
    Flight leg[3];
    // flight #, destination, departure time, gate
    leg[0].set(225, "Rome", "10:30 am", "B12");
    leg[1].set(16, "Vienna", "8:00 am", "A5");
    leg[2].set(27, "Moscow", "4:15 pm", "C9");
    cout << "Here is your itinerary:\n";
    for (int i = 0; i < 3; i++)
        leg[i].describe();
    // Flight 225 for Rome leaving at 10:30 am from gate B12.
}

int main() {
    runTravel();
    return 0;
}
```

