**Exercise 7: Static Members**

**Due Date:** Today by the end of class

**Turn in:**

- Your **project** named **A250_E7_YourLastName_YourFirstName**
- A **printed** copy of the **SpaceShips.cpp** file (make sure the name header is in this file).

You may work on this exercise with another student. If you do, write **both names in the header**, turn in **two copies** of the **project**, one with your name on the folder and the other with the other student's name on the folder, and **only one copy** of the **printed cpp file**.

This is a very (very!) short game simulation. The game begins and places on screen a number of spaceships. Each spaceship has a certain number of points and possibly a bonus. The gamer starts playing and when s/he hits a spaceship points are added to the score.

Using the file **ex_07_static_members**, write the definition and implementation of the class **SpaceShips**. The class creates objects (spaceships) that store the total number of points and a Boolean value that determines whether that particular object (spaceship) has a bonus. The bonus is defined as a constant, equivalent to 50 points, which are added to the points already stored in the object (spaceship). The class contains two static variables, **totalSpaceShips** and **totalPoints**, which at any given moment can provide the total number of spaceships on the screen and the current score.

The **main** function in the **Main.cpp** file contains testing cases. By carefully looking at the function calls, determine which member functions of the class **SpaceShips** you need to implement, which functions should be **static**, which parameters are passed, which type is returned, and how the functions behave.

When testing your code, make sure that the output correctly displays the number of points every time the user hits a spaceship and the number of spaceships remaining on the screen.