### **Exercises**

#### Exercise #1

- Create an abstract class called SpaceShip which will simulate a spaceship for a video game.
  - a. You can assume such simple properties as:
    - i. position, size, displayName, speed
  - b. Create a number of concrete classes such as:
    - i. MilleniumFalcon
    - ii. UNSCInfinity
    - iii. USSEnterprise
    - iv. Serenity
  - c. Using the <u>Simple Factory Method</u> create a factory implementation that will create each of these instances.

#### Exercise #2

- 1. You can try to implement the exact factory from Exercise#1 but using the classic Factory Method Pattern.
  - This entails that you need to create a specific factory <u>for each</u> of the concrete <u>SpaceShip</u> class types.
  - b. When you need to create for example **USSEnterprise** you will in fact delegate to **USSEnterpriseFactory**
  - c. This means that the creation will need to be in some sort of switch to sort out which factory to use.

## **Good Luck!**