ASSESSMENT 3

OVERVIEW

Create a Java console application that utilizes OOP concepts. Your completed application should include classes and methods that perform the required actions and follow proper naming conventions. For this challenge, you will need to submit your code to your Java Project, all classes must be created in the **co.grandcircus** package.

BUILD SPECIFICATIONS

The assessment is worth ten points, one for each of the test cases below. **Pay special attention to the spelling and capitalization of the items in bold**.

NOTE: This assessment does not ask for a main method or class. However, feel free to add another class with a main method in order to call and test your code.

1. Create a class named **Crew** that has the following **private** fields: **String name, String role**.
   a. Create getters and setters for these two fields.
   b. Create two constructors
      i. A no argument constructor
      ii. An overloaded constructor that takes in the name and role parameters (in that order) and assigns them
2. Create a class called **SpaceShuttle** that has the following **private** fields: **int fuel, List<Crew> team**.
   a. Create getters and setters for these two fields.
   b. Create a constructor that takes <u>no parameters</u>. In the constructor, set `fuel` to 0 and initialize `team` with the following members:
      i. **"John"** whose role is **"Captain"**
      ii. **"Diddy"** whose role is **"Chimp"**
      iii. **"Hannah"** whose role is **"Navigator"**
3. Create a public instance method named **isReadyForTakeoff** in the **SpaceShuttle** class. It has <u>no parameters</u> and returns a boolean. This method will verify that both of the following are true:
   a. `fuel` is greater than 5.
   b. `team` count is exactly 3.
   If all conditions are true, your team can go to space! Return **true**. Otherwise, return **false**.