

ASSESSMENT 3 - UNIT 4: OOP, Abstract Classes, Interfaces

Core concepts: Classes, Class methods

OVERVIEW

Create a C# console application that utilizes OOP concepts..

Your completed application should include classes and methods that perform the required actions and follow proper naming conventions.

BUILD SPECIFICATIONS

Pay special attention to the spelling and capitalization of the items in bold.

For this challenge, you will need to create a new C# Project named **Assessment3a**. All classes must be created in the **namespace Assessment3a**.

1. Create a class called **Crew** that has the following properties: **string Name, string Role**
2. Create a **Crew** constructor that takes in 2 parameters: **Name** and **Role**. Both Parameters should initialize the corresponding Properties.
3. Create a class called **SpaceShuttle** that has the following properties: **int Fuel, List<Crew> Team**
4. Create a constructor that takes no parameters. Set fuel to 0.
5. In the constructor, initialize Team with the following members:
 - a. **"John"** whose role is **"Captain"**
 - b. **"Diddy"** whose role is **"Chimp"**
 - c. **"Hannah"** whose role is **"Navigator"**
6. In the SpaceShuttle, create a public method named **Launch()** that returns a bool. This method will only launch the space shuttle if the following are true:
 - a. Fuel is greater than 5.
 - b. Team Count is exactly 3.
7. If all conditions are true, your team has made it to space! Congrats! Otherwise, return false, since your launch did not take off.

SUBMISSION

When finished, find your project in your File Explorer. Close Visual Studio. Delete the bin and obj folders in your project, compress the **Assessment3a** project as an archive file (ZIP) and upload it below.