

# University of Lincoln Assessment Framework

## Assessment Briefing Template 2021-2022

**Module Code & Title:**

**CMP1903M Object Oriented Programming**

**Contribution to Final Module Mark:**

**70%**

**Description of Assessment Task and Purpose:**

This is Assessment 2 and is an **individual** assignment.

This assignment asks you to design and implement the '**Three or More**' dice game as described on <http://icebreakerideas.com/dice-games/>

**Directions for play:**

Players take turns rolling five dice and score for three-of-a-kind or better. If a player only has two-of-a-kind, they may re-throw the remaining dice in an attempt to improve the remaining dice values. If no matching numbers are rolled after two rolls, the player scores 0.

**Scoring:**

- 3-of-a-kind: 3 points
- 4-of-a-kind: 6 points
- 5-of-a-kind: 12 points

The player who reaches a fixed value of points (say 50) is the winner. This should be a console application.

In your solution, you should implement:

- A 'Game' class
- A 'Player' class
- A 'Die' class
- Any other classes that you feel may be appropriate.
- An inheritance relationship
- Interface implementation
- Exception handling
- A basic testing strategy
  - Test the following features:
  - 1,2,3,4,5 x dice roll
  - Opening/closing gracefully
  - Adding dice values
  - Reaching the pre-set fixed value

A short (up to 1 minute) video of your application running should also be produced and uploaded to YouTube.

**I strongly urge you to use Github repo hosting, pull requests and code review – although this is not part of this assessment.**

Please see the **Criterion Reference Grid** for details of how the presentation will be graded.

**Learning Outcomes Assessed:**

- [LO2] Identify the values of object-oriented design and programming
- [LO3] Apply object-oriented principles to the implementation of software programs
- [LO4] Use testing principles in the testing and debugging of object-oriented applications

**Knowledge & Skills Assessed:**

Subject Specific Knowledge, Skills and Understanding:

Object Oriented principles

Testing

C# programming;

Professional Graduate Skills:

Independence and personal responsibility, written communication

Emotional Intelligence:

Motivation, self-confidence, self-assessment.

Career-focused Skills:

OO development;

Testing;

C# programming

**Assessment Submission Instructions:**

You should submit two files – a zip file, a written report which includes the completed checklist and the video URL.

Please zip up your code file as a compressed ZIP file (**no RAR or any other file formats will be accepted. Please use the standard 'Windows Compressed File' zip format or other platform standard zip formats**) and should be submitted through Blackboard in the '**CMP1903M Assessment Item 2 Supporting Documentation Upload**' section of the Assessments folder.

The report/checklist/video URL should be uploaded to **CMP1903M Assessment 2 upload**.

**Date for Return of Feedback:**

Please see the School assessment dates spreadsheet.

**Format for Assessment:**

VS project (or other IDE), written report.

Your written report should show that you have tested your solution and the OO features used:

- Describe the OO features used, where and how they occur in your code [**LO2, up to 700 words**]
- Complete the checklist [**LO3 – including code and video URL**]
- Include the test inputs, the expected and actual outputs [**LO4**]

**Feedback Format:**

Written Blackboard feedback.

**Additional Information for Completion of Assessment:**

**There is a checklist** which you should complete with your submission showing which features you have included and which OO features are present.

**Assessment Support Information:**

UML and problem decomposition: <https://bit.ly/2CsXO1q>

**Important Information on Dishonesty & Plagiarism:**

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Plagiarism is a serious offence and is treated by the University as a form of academic dishonesty. Students are directed to the University Regulations for details of the procedures and penalties involved.

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