CMP1903M Object Oriented

Programming 2024 – 2025

Assignment 1: Report

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Code repository URL: <https://github.com/Syed-MAF/assessment-1-.git>

Video URL: <https://youtu.be/dfxr0LLTbQQ>

1. Object Oriented features are used throughout the code as the code has method calls like Player.PickUpItems() and Room.GetDescription(). These are split into different classes like player.cs, room.cs and game.cs. Moreover this dungeon game can be expanded by adding features like strength and defence in player.cs or by adding multiple rooms into room.cs.
2. Errors are handled by the while loop as the case switch only allows one of the options to be selected. If something else other than the following options in selected the program tells the user to input one of the numbers from the options without the code crashing or causing an error.
3. I did not use debug.assert method however I did basics error checking to make sure the code runs without any problems and does not crash if there is an input that the program does not expect.

5) I learned how to use object oriented principles in my code and how I can use different methods throughout my code along with how classes work. This showed me the importance of learning object oriented programming as it saved having to write the same code over again if you do not use methods and also the ability to split the code up and write the code in different classes and save them in different files which is an important feature when it comes to being in a team in a working environment.

6) I found that the most challenging part was understanding how to use the git workflow when first starting to use github whilst coding on visual studio, however I came to realise that there isn’t anything difficult about it once I understood how repositories worked and how to push and pull my code and make commits. Along with that I dtrugled on how to use ‘debug.assert’ as I wasn’t able to add it to my code.

7) In the next assessment I would like to do much better than I have on this assessment so I would like to know what I would need to do to a higher mark next time. I would like feedback on how I can use the testing class and how to use ‘debug.assert’ as I tried to understand it however I never understood how to implement it into my code.

Pass standard:

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| --- | --- |
| The code compiles and runs. |  |
| The player can explore at least one room. |  |
| Object instantiation, method calls evident. |  |
| There is code review from two students. |  |
| Handle invalid commands gracefully without crashing the program. |  |

2:2 Standerd

|  |  |
| --- | --- |
| Rooms can contain multiple items or monsters. |  |
| The Testing class is used. |  |
| The player can pick up items through an implementation of the Player.PickUpItem() method. |  |
| The C# style guide is followed partially. |  |
| At least one room has a description and can contain one item or one monster. These functionalities are given by the Room.GetDescription() method. |  |
| Method calls from ‘Main’ to methods in other classes |  |

2:1 standard:

|  |  |
| --- | --- |
| Pull Requests and code reviews are noted |  |
| You have taken account of the reviews and merging your changes. |  |
| There is a complete implementation of your code with no issues. |  |
| Commenting is mostly through the code files. |  |
| There are at least one Game and Player objects. |  |
| There is evidence of testing. |  |
| Error handling is performed well but there are still issues. |  |
| There is clear evidence of object-oriented features such as classes, |  |
| object instantiation, encapsulation and methods |  |