

# INFO1111: Computing 1A Professionalism

**2023 Semester 1**

## Self-Learning Report

**Submission number: 2**

Github link: <https://github.com/Tanheishanyang/INFO1111selflearning.git>

|                         |            |
|-------------------------|------------|
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| Topic                   | Unity      |
| Levels already achieved |            |
| Levels in this report   | A          |

# Contents

# 1. Level A: Initial Understanding

## 1.1. Level A Demonstration

Install Unity and configure the conditions required to run the C Sharp language in VScode.

Create a first-person view of a character and allow that character to move.

Create and assign variables in C Sharp. Define and call functions in C Sharp.

## 1.2. Learning Approach

In order to complete the self learning topic, I developed a small learning plan, the first process is in a video website to learn some basic knowledge needed to learn Unity, as well as an introduction to unity. Then, I started to break down the basics, which can be roughly broken down into unity operations and programming knowledge required. I started by taking a look at the common Windows in Unity and what they do. After that, I started the production of the project. When needed, I began to learn how to complete the functions I needed in C sharp

## 1.3. Challenges and Difficulties

I found the most difficult project was to create a mannequin that could move freely and had relatively well-coordinated body movements. Because he involved modeling action design, and relatively complex C Sharp programming. First of all, I thought it was very difficult to solve the human model, because I had never used C4D before, so it was very difficult to create a human model. Later, I found the human model on the Internet, but the action design was still very inconsistent. After many unsuccessful attempts, I chose to use the resources in Unity to complete this section.

## 1.4. Learning Sources

| Learning Source - What source did you use? (Note: Include source details such as links to websites, videos etc.). | Contribution to Learning - How did the source contribute to your learning (i.e. what did you use the source for)? |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <a href="https://b23.tv/i1slyBJ">https://b23.tv/i1slyBJ</a>                                                       | Learning how to use Unity                                                                                         |
| <a href="https://b23.tv/Awrg4pV">https://b23.tv/Awrg4pV</a>                                                       | Learning how to write C code                                                                                      |

## 1.5. Application artifacts

Include here a description of what you actually created (what does it do? How does it work? How did you create it?). Include any code or other related artefacts that you created (these should also be included in your github repository).

If you do include screengrabs to show what you have done then these should be annotated to explain what it is showing and what the application does.

## **2. Level B: Basic Application**

Whilst level A is about doing something simple with the topic to just show that you have started to be able to use the tool or technology, level B is about doing something practical that might actually be useful.

### **2.1. Level B Demonstration**

This is a short description of the application that you have developed in order to demonstrate your understanding. (50-100 words).

### **2.2. Application artifacts**

Include here a description of what you actually created (what does it do? How does it work? How did you create it?). Include any code or other related artefacts that you created (these should also be included in your github repository).

If you do include screenshots to show what you have done then these should be annotated to explain what it is showing and what the application does.

### **3. Level C: Deeper Understanding**

Level C focuses on showing that you have actually understood the tool or technology at a relatively advanced level. You will need to compare it to alternatives, identifying key strengths and weaknesses, and the areas where this tool is most effective.

#### **3.1. Strengths**

What are the key strengths of the item you have learnt? (50-100 words)

#### **3.2. Weaknesses**

What are the key weaknesses of the item you have learnt? (50-100 words)

#### **3.3. Usefulness**

Describe one scenario under which you believe the topic you have learnt could be useful. (50-100 words)

#### **3.4. Key Question 1**

Note: This question is in the table in the ‘Self Learning: List of Topics’ page on Canvas. (50-100 words)

#### **3.5. Key Question 2**

Note: This question is in the table in the ‘Self Learning: List of Topics’ page on Canvas. (50-100 words)

## **4. Level D: Evolution of skills**

### **4.1. Level D Demonstration**

This is a short description of the application that you have developed. (50-100 words).  
**IMPORTANT:** *You might wish to submit this as part of an earlier submission in order to obtain feedback as to whether this is likely to be acceptable for level D.*

### **4.2. Application artifacts**

Include here a description of what you actually created (what does it do? How does it work? How did you create it?). Include any code or other related artefacts that you created (these should also be included in your github repository).

If you do include screengrabs to show what you have done then these should be annotated to explain what it is showing and what the application does.

### **4.3. Alternative tools/technologies**

Identify 2 alternative tools/technologies that can be used instead of the one you studied for your topic. (e.g. if your topic was Python, then you might identify Java and Golang)

### **4.4. Comparative Analysis**

Describe situations in which both your topic and each of the identified alternatives would be preferred over the others (100-200 words).