# **CSD2451 – INDIVIDUAL MILESTONE REPORT – V01**

**Contents**

The contents of this report must start with the following (in this order, with all caps for the section titles). Anything in italics here must be changed to whatever is appropriate for you (but should not be in italics in the actual submission you send).

**MILESTONE**: M5 Beta

**TEAM NAME**: Illusion

**GAME NAME**: Twilight

**JOBS/CHAMPIONING**: Programmer, Editor designer

***CODE:***

|  |  |  |  |
| --- | --- | --- | --- |
| **File** | **Lines of code** | **Describe your current work added/ updated in the file** | **Reference (if any)** |
| *IUArray.cpp* | 143 | *Overhauled the internal storage mechanism to optimize for faster access times and improved memory management.* |  |
| *IUQueue.cpp* | 106 | *Improves the efficiency of queue operations and supports higher concurrency levels for gameplay.* |  |
| *IUVector.cpp* | 208 | *Added more complex operations to support flexible and powerful custom engine component.* |  |

***TOTAL LOC: 457***

**Custom Engine – Gameplay:**

*Enhanced IUArray with dynamic resizing and optimized memory usage, allowing for more efficient data management and quicker access during gameplay.*

*Refined IUQueue to ensure smoother gameplay flow and entity processing.*

*Upgraded IUVector to support more complex vector operations needed for physics calculations and movement mechanics.*

**Extras:**

*Discussing with team members on optimizing game code, sharing insights from the recent refactoring work.*

*Contributed to the development of a new debugging tool to visualize game state changes in real-time, helped in quicker debug resolution.*

*Prepare for presentation and slides.*

**Notes:**

*This milestone was a big step for our game. The game now looks significantly more finished and polished. I am looking forward to finish the game in the next milestone, M6, and could not wait to wrap up this project.*