# Implementation 1

# Cohort 1, Group 6

#### Group Members:

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### Libraries and Licensing

For the development of UniSim, we incorporated core libraries such as LibGDX, which is an open source Java game engine licensed under the Apache License 2.0. This licence is permissive, which allows us to use, modify, and distribute the software with minimal restrictions, offering the flexibility we need to adapt LibGDX to meet the requirements of our game. Furthermore, the licence requires that any modified version of LibGDX we distribute must include proper credit to the original developers. This ensures that we follow ethical guidelines while still giving us the freedom to focus on our game development.

The Apache License 2.0 also includes a "no warranty" clause, which is common in open source projects. This clause protects both the original LibGDX creators and our team from any legal issues. Another significant feature of this licence is that we are not required to open-source our game's code, even though we're using an open source framework. This is crucial as it allows us to keep full control over our project's code if we plan to release UniSim commercially which allows us to retain ownership of the final product.

In addition to LibGDX, we sourced various game assets such as tiles, textures, and sound effects from Kenney.nl and Itch.io. These assets are licensed under the Creative Commons CCO licence, which is a public domain dedication. This licence allows us to use the assets freely for any purpose, including commercial use, without imposing restrictions. Unlike other Creative Commons licences, CCO does not require attribution, meaning we are not legally obligated to credit the creators, though we may still choose to do so. This simplifies the asset integration process and reduces the risk of legal complications. Additionally, the CCO licence allows for full modification of assets, enabling us to customise models, textures, or animations to fit the unique style and atmosphere of our game. For example, we can alter the appearance of buildings or characters to better reflect a university environment. The freedom to modify assets as needed, combined with the permission to use them in commercial products, makes the CCO licence an excellent fit for our project.

In conclusion, the combination of LibGDX under the Apache License 2.0 and CCO-licensed assets provides our project with the flexibility, legal protection, and creative freedom needed to successfully develop UniSim. Both licences align well with our goal to create a commercial or private product while allowing us to focus on the quality and innovation of the game without concerns over licensing constraints.

## **Functionalities Not Implemented**

All features required for Assessment 1, as outlined in the Product Brief, have been fully implemented. This includes: the ability to place at least one of each required building type (a place to sleep, a place to learn, a place to eat, and a recreational activity); a tracker for the duration of the game (up to 5 minutes); and a counter tracking the number of each building type placed.