

# **Implementation**

**Group 12**

**Team 12**

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This document outlines the resources and licences for the software libraries, dependencies, game assets and components for the first version of the Heslington Hustle. The game implementation utilises the LibGDX game engine with the automation tool, Gradle to manage dependencies. The game is written in Java 11 and is split into modules that contain the game's UI components and logic. For the creating map world we used Tiled Map Editor, which enabled us to introduce different layers for the collision and interaction objects in the map.

#### Resources and Licences:

- Game engine: <https://libgdx.com/> (Apache 2.0 Open Source) - the licensing allows for use, modification and distribution of the engine, suitable for commercial and non-commercial projects.
- Tiled map editor: <https://www.mapeditor.org/> (GNU Open Source) - There are no restrictions, Tiled is a free software. General Public License usually requires that any software incorporating GPL-licensed
- Components must also be released under GPL. This licence promotes software freedom.
- Player sprites : <https://the-pixel-nook.itch.io/retro-rpg-character-pack> (CC0)- Free to use for any purpose and royalty free for the specific pack.
- Kenney Free Assets - <https://kenney.nl/support> -All game assets found on the asset page are public domain CC0 licensed, see the included licence file or refer to the game asset page for full details.
- Tilemap: <https://kenney.nl/assets/rpg-urban-pack> (CC0)
- Input prompts: <https://kenney.nl/assets/input-prompts> (CC0)
- Freesound - collaborative database of creative-commons **licensed** sound for musicians and sound lovers - <https://freesound.org/> -(CC0), sounds under this licence can be used without any restriction.
- Background Music - Youtube - + 8 bit music. A Lonely Cherry Tree - 🎵 8 bit Music (NO copyright) 🎵 This song has no copy, you can use it for whatever you want, if you do please share this channel. - [A Lonely Cherry Tree](#) 🌸 - (CC0)
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#### Features not fully implemented from requirements:

We have implemented all features required for Assessment 1 and nearly all of Assessment 2 requirements. However, the client mentioned a “nice to have” feature of a moving non-player character (FR\_NPCS). We have not implemented this as we deemed this not a feature that would enhance the user's experience whilst playing the game, unlike features such as FR\_RESOLUTION or FR\_SOUND. Furthermore, we actually believed this would hinder the user's experience whilst playing the game; having a NPC would not change the difficulty nor dynamic of the game and in fact, has the potential to disrupt the player's engagement.