Implementation

Cohort 1, Team 3

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LibGDX
LibGDX is a cross platform Java game development framework which provides rendering, input, audio and asset management.

Licensing
LibGDX uses the Apache 2.0 license which allows distribution of derivative works, does not require that our project be open source and does not impose licensing restrictions on our project [1].
This is suitable for our project as it allows us to use and modify the LibGDX framework to build our game freely. As well as allowing us to be flexible with our own licensing and availability of our source code, whatever the customer / stakeholder may require.

Third-Party Libraries and Assets

This project utilised two main visual asset packs from two creators on itch.io : "Pixel Lands – Dungeons" pack by Trislin and "Pixel Quest" pack by Simflz [2][3]. These packs were used to design different areas of the map.

Furthermore, with the expansion of the project, we utilised another character asset pack: "Pixel Quest NPC" by Simflz [4]. This gave us access to a wide range of NPC characters that we could add to our project, however we only utilised the "old man" character but this pack gave us the possibility for even more expansion with different characters.

These packs were all released under royalty-free licenses which allowed us to use these for both personal and commercial use. For the "Pixel Quest" and "Pixel Quest NPC" pack by Simflz, we acquired the paid versions of these asset packs, as it gave us access to more assets to expand the project with and allowed use of them in commercial projects.This was essential as it aligns with the client's requirements for the game to be fully compliant with intellectual property laws in case they wanted to commercialise it at a later date. Both asset packs can also be used without the need to credit the original creator.

Other assets within the project were drawn/created using photoediting tools which allowed us to use them freely within the project for both personal and commercial use.

Overall, all third-party libraries and assets used in this project are distributed under permissive or attribution-based licenses, ensuring full compatibility with the project.

Missing Features

UR Settings
The only feature that has not been implemented is UR_Settings which would allow the user to change certain aspects of the game (E.g. sounds, controls, UI elements, difficulty, etc). Implementing this feature would involve creating a new screen or menu, containing numerous interactive elements that must integrate with the wider game system.

Due to time constraints and the complexity of this feature, as well as its listed priority as 'may', it is currently unimplemented in order to prioritise the development of more fundamental features.

References

[1] Apache License, Version 2.0. Available at: https://www.apache.org/licenses/LICENSE-2.0 (Accessed: January 2026).

[2] Trislin, Pixel Lands – Dungeons. Available at: https://trislin.itch.io/pixel-lands-dungeons (Accessed: January 2026).

[3] Simflz, Pixel Quest. Available at: https://simflz.itch.io/pixel-quest (Accessed: January 2026).

[4] Simflz, Pixel Quest NPC Pack. Available at: https://simflz.itch.io/pixel-quest-npc-pack (Accessed: January 2026).