

Implementation 2

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Third Party Libraries

LibGDX Framework

Gradle Version: 9.4.0-milestone-4

License: Apache License 2.0

Purpose: LibGDX is a cross platform Java game development framework based on OpenGL ES that enables deployment to desktop, Android, iOS, and HTML5/WebGL from a single codebase. The framework provides comprehensive 2D game development capabilities including graphics rendering, audio playback, input handling, UI system, file I/O, collision detection, and viewport management.

License Suitability: Apache License 2.0 is suitable for this project. It is an open source license that permits unrestricted commercial use, modification, and distribution without copyleft restrictions, meaning we retain full rights to our game's source code and no royalty fees or forced source code disclosure requirements.. LibGDX is actively developed and maintained and well documented.

Java Libraries: `java.util.*` and `java.io.*`

Requirements Implementation

Most product brief requirements have been fully implemented

UR_University: University themed maze environment with rooms

UR_Player: Player character movement controls

UR_Time_Tracker: Five minute countdown timer with pause functionality

UR_Negative: Dean, BearTrapEvent, EventTHE3, Dean, KeyEvent

UR_Positive : EventFreeze, InvincibleEvent, EventGreggs

UR_Hidden: BookshelfEvent, EventLongboi, TeleportEvent

UR_Score: Scoring system based on time and events and persistent leaderboard storing top 5 scores.

UR_Achievement: Achievement tracking system (7 achievements)

FR_Audio: Audio system with music and sound effects

FR_Difficulty: Three difficulty levels: Easy, Medium, Hard

FR_Tutorial: Tutorial demonstrating controls

FR_Performance_Display: Not implemented

Executable JAR

File: Escape_From_Uni-1.0.0.jar

Requires: Tested on Java 21: openjdk version "21.0.7"

Execute: java -jar Escape_From_Uni-1.0.0.jar

Tested on: Windows 11, macOS , Linux