
NULL
VITALS

INTRODUCTION

Null Vitals is a 2D survival horror game developed in Java, set in a post-experimental hospital where the player must navigate through a hostile environment filled with mutated patients, interactive NPCs, and lore-based mini-bosses. The game features real-time combat, dynamic weapon systems, item pickups, and keycard-based progression. Developed using object-oriented programming principles and real-time event handling, Null Vitals integrates splash screens, save/load functionality, background audio, and narrative cutscenes to provide an immersive experience. It is packaged as a standalone executable application, allowing it to run on systems without requiring any pre-installed Java Runtime Environment.

SOFTWARE & HARDWARE REQUIREMENTS

•Software: Java JDK 8+, Eclipse/IntelliJ, Launch4j, GIMP, Audacity.

•Hardware: Minimum Dual-core CPU, 4GB RAM; Recommended 8GB RAM

•OS: Windows 10/11 for executable distribution.

DISADVANTAGES IN EXISTING PROJECTS

Existing 2D horror and survival games, such as Project Zomboid and Lone Survivor, often require heavy dependencies, are not optimized for lightweight systems, or lack modular and readable source code. Many similar Java-based projects also fall short in terms of narrative depth, extensibility, or deployment accessibility. These games may require specific runtime environments or fail to provide a streamlined experience for users without technical backgrounds, making them less accessible in academic or general-purpose scenarios.

ADVANTAGES IN PROPOSED PROJECT

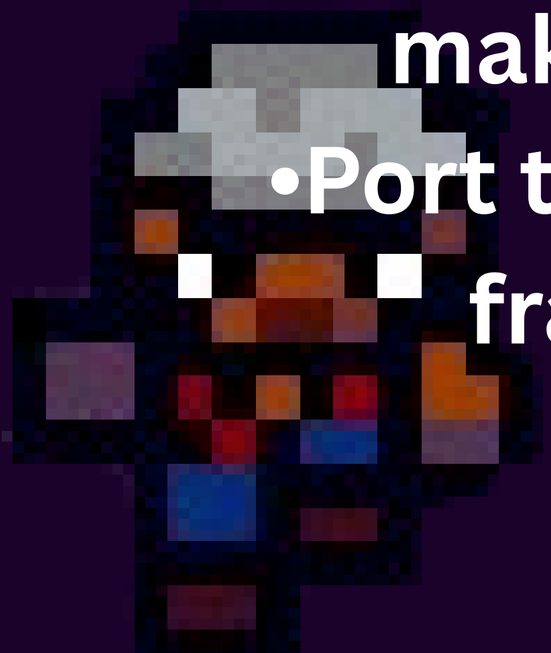
Null Vitals addresses these limitations by offering a modular, lightweight, and fully self-contained application built with core Java. It emphasizes clean object-oriented architecture, integrates cutscenes and interactive NPCs for narrative depth, and features a standalone executable that does not require Java installation on the user's machine. Its save/load functionality, dynamic combat system with multiple weapon types, and background music enhance user immersion while maintaining performance and scalability. The project serves as both a technical demonstration of Java capabilities and a functional horror game experience.

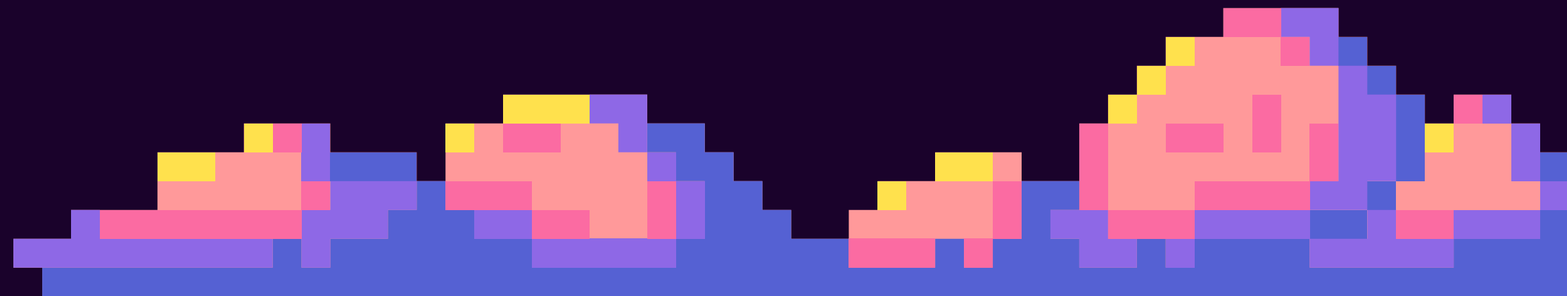
CONCLUSION

In conclusion, Null Vitals demonstrates how core Java can be effectively leveraged to create a narrative-rich, technically sound, and user-friendly 2D horror game. The project highlights the potential of object-oriented programming in real-time interactive systems and reflects a balance between gameplay mechanics, software engineering practices, and deployment readiness. Through clean design, engaging content, and accessible packaging, Null Vitals stands as a strong example of academic-level game development.

FUTURE SCOPE

- Add multiplayer mode.
- Enhance graphics and visual effects.
- Expand AI behaviors for dynamic gameplay and make the game challenging for players.
- Port to Android or web platforms using Java frameworks to reach more audience





THANK YOU!