



Design and development of “Last Five Orders”: A focused role-based 2D action RPG for enhanced player experience and resource management

Dhanya Vinish, Nimish Angchekar, Siddhesh Chavan, Prathamesh Dalvi, Shravan Shetty
Department of Computer Application, Pillai College of Arts, Commerce & Science, Maharashtra, India

Abstract

The Last five orders is a 2D action RPG developed to help players experience a deep, focused medieval fantasy world without the initial cognitive overload of traditional RPGs. With the increasing complexity of modern games, players often lose track of their core objectives and mechanics. This game allows players to select one of five distinct starting orders, locking them into a dedicated environment and combat system. To progress, the player must complete localized quests and defeat the boss of their current realm to unlock the other 4 roles. It provides a centralized inventory system where players can collect items and craft gear essential for survival. Because the player has limited health that leads to a definitive game over upon depletion, the game encourages tactical planning over reckless combat. To handle scalable player data, saved states, and future cross platform features, the backend architecture can be developed using modern technologies like Node.js and MongoDB to ensure secure authentication and smooth performance.

Keywords: 2D game development, medieval fantasy, action role playing game (RPG), combat mechanics, crafting system, boss progression, resource management, cognitive load, Mongoddb, player authentication

Introduction

In today's digital entertainment landscape, action role playing games (RPGs) and Metroidvanias have become a regular part of daily gaming routines. While these games provide vast worlds and immense replayability, managing complex skill trees and overwhelming starting choices can become difficult for new players. The last five orders is a 2D medieval themed game designed to solve this problem by introducing heavily focused, role specific starting experiences. At the beginning of the game, the player must choose between 5 ancient roles, which immediately determines their starting map, abilities, weapons, and combat style. The system focuses on simplicity, mastery of a single playstyle, and strategic resource awareness, making it suitable for users of various skill levels.

Literature & Market Review

With the rapid growth of digital gaming services, complex RPGs and vast open world platforms have become very common. However, studies of player behavior show that users often subscribe to multiple complex mechanics but fail to track their resources or master their core abilities properly. Existing games provide advanced progression features, but they are often complex and include many advanced tools that regular users may not need right at the beginning of a playthrough. Research suggests that users prefer simple and focused applications that solve one specific problem effectively rather than complicated systems with too many features.

The last five orders was developed to address these gaps by providing a highly focused initial experience, a centralized crafting dashboard, and clear, role based mechanics. The game focuses on ease of use while helping players become more aware of their limited health and survival habits.

Research and Playtesting Methodology

Research methodology refers to the systematic process used to collect, analyze, and interpret data for a particular study. For the development of the last five orders, playtesting research will be conducted to understand player behavior, combat usage patterns, and the difficulty curve associated with the limited health and permadeath mechanics.

- **Research Design:** The study is based on a descriptive research design. This design was chosen to analyze how users handle the crafting mechanics and what balance they expect from the boss encounters.
- **Type of Research:** The research is based on primary data collection and quantitative analysis.
- **Data Collection Method:** A structured questionnaire will be prepared using Google Forms to gather data on the 5 starting roles.
- **Target Population:** The target population for this study includes students, working professionals, and general digital users.

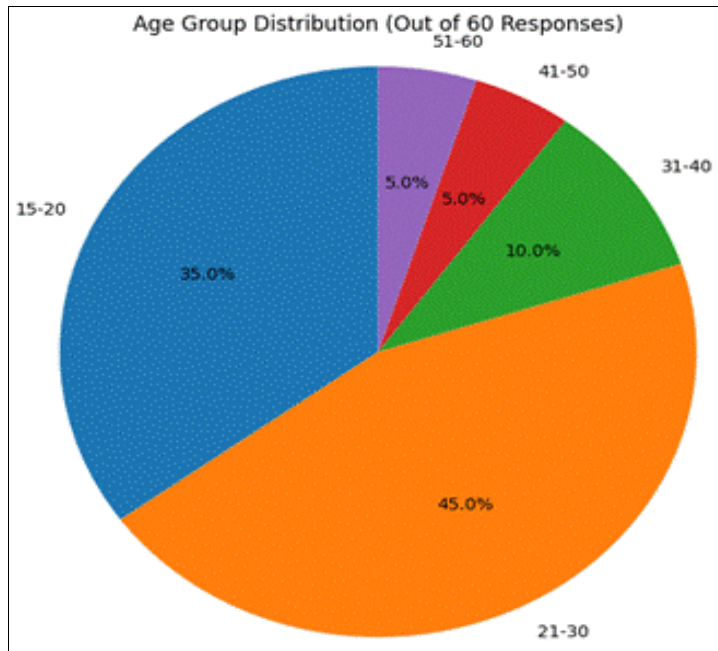
Expected Results and Analysis

The collected playtesting data will be analyzed using percentage and numerical analysis to derive meaningful insights into the game's balance.

Q1. What is your age group?

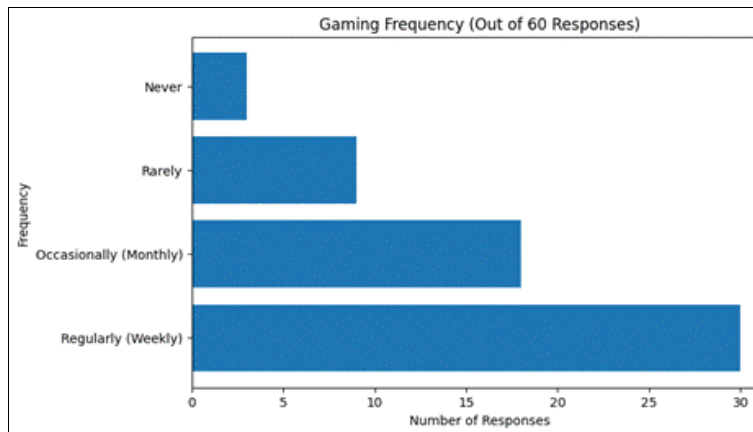
Purpose: Establishes your target demographic.

Age Group	Percentage	Responses (Out of 60)
15-20	35%	21
21-30	45%	27
31-40	10%	6
41-50	5%	3
51-60	5%	3



Q2. How often do you play 2D action-RPGs or Metroidvanias?

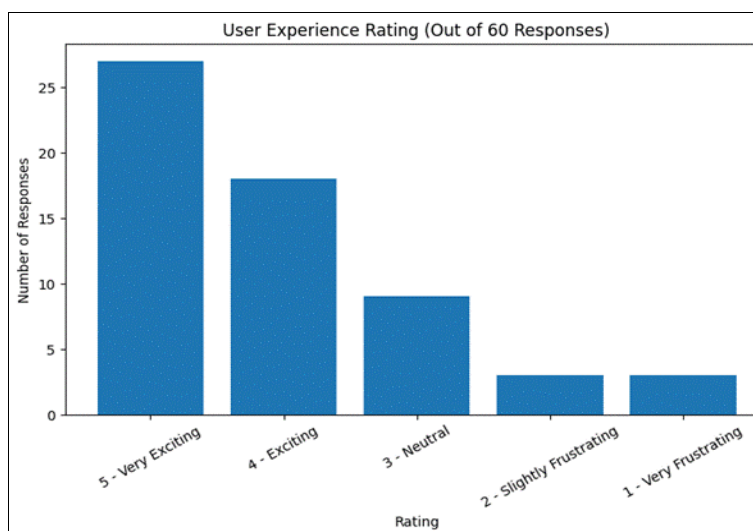
Purpose: Determines if the playtesters are familiar with the genre's standard mechanics.



Gaming Frequency	Percentage	Responses (Out of 60)
Regularly (Weekly)	50%	30
Occasionally (Monthly)	30%	18
Rarely	15%	9
Never	5%	3

Q3. The last five orders locks you into a specific role and map at the start. How appealing is this mechanic?

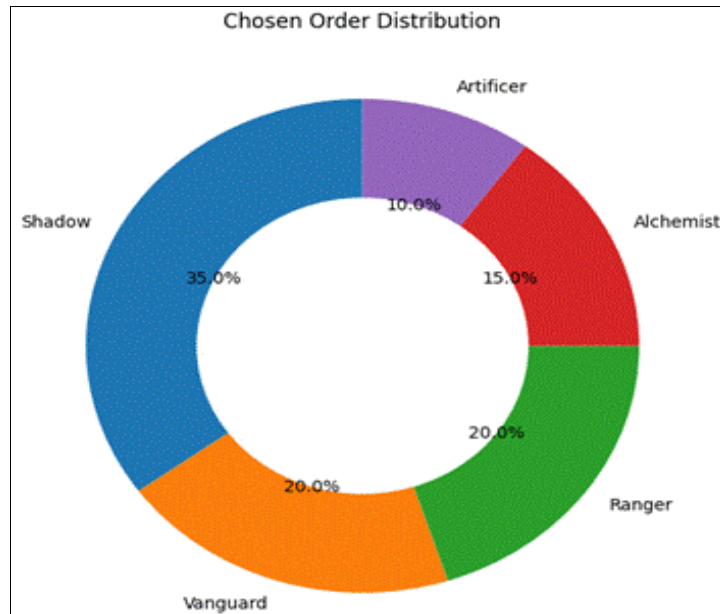
Purpose: Validates your core game design using a 1-5 rating scale.



Rating (1 to 5)	Percentage	Responses (Out of 60)
5 - Very Exciting	45%	27
4 - Exciting	30%	18
3 - Neutral	15%	9
2 - Slightly Frustrating	5%	3
1 - Very Frustrating	5%	3

Q4. Which of the Five Orders did you choose to play first?

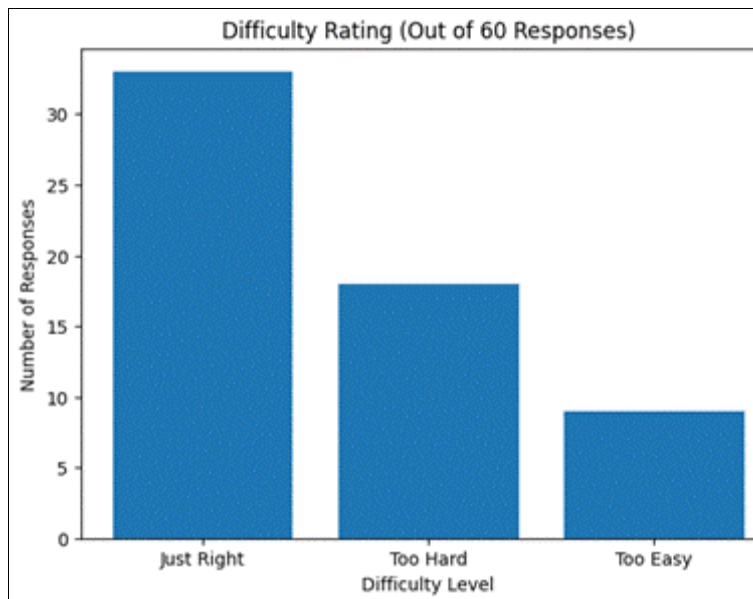
Purpose: Tracks role popularity to ensure no single class is overpowered or ignored.



Chosen Order	Percentage	Responses (Out of 60)
The Shadow	35%	21
The Vanguard	20%	12
The Ranger	20%	12
The Alchemist	15%	9
The Artificer	10%	6

Q5. How would you rate the difficulty of the limited health and "Game Over" system?

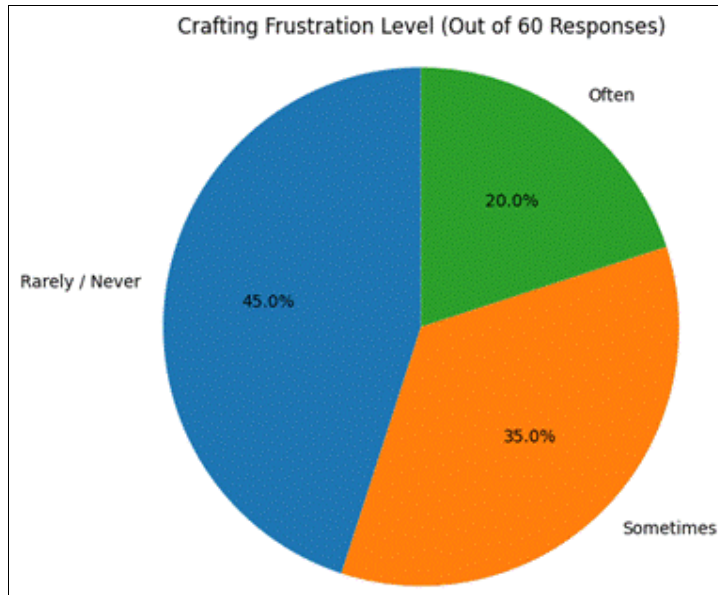
Purpose: Use a "Goldilocks scale" to test the balance of your survival mechanics.



Difficulty Rating	Percentage	Responses (Out of 60)
Just Right	55%	33
Too Hard	30%	18
Too Easy	15%	9

Q6. Did you ever feel frustrated while gathering resources and using the crafting system?

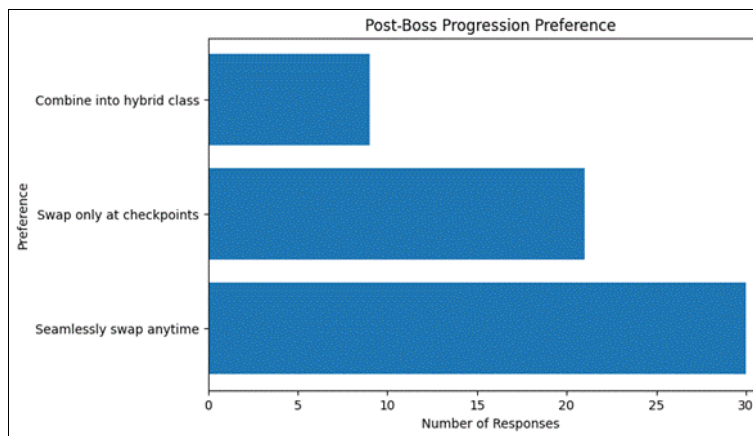
Purpose: Directly identifies pain points in the inventory and material loops.



Crafting Frustration Level	Percentage	Responses (Out of 60)
Rarely / Never	45%	27
Sometimes	35%	21
Often	20%	12

Q7. How do you prefer to swap between the roles once you unlock them after defeating a boss?

Purpose: Guides your development for the mid-to-late game progression systems.



Post-Boss Progression Preference	Percentage	Responses (Out of 60)
Seamlessly swap anytime	50%	30
Swap only at specific checkpoints	35%	21
Combine into hybrid class	15%	9

Discussion

The development of the last five orders highlights the growing need for focused, engaging gameplay loops in today's digital lifestyle. During the design process, it became clear that simplicity is the key factor in user satisfaction. Instead of creating a convoluted skill tree, the game was designed to focus only on mastering one specific role's map and combat style at a time.

The limited health system plays an important role in the effectiveness of the application. By enforcing a strict game-over state, the system helps prevent reckless gameplay and encourages players to utilize the crafting mechanics. Furthermore, implementing secure authentication and data

validation using a robust database backend ensures that player progress, unlocked roles, and crafted inventories remain protected. Future improvements such as AI-based enemy scaling could make the system even more powerful.

Conclusion

The last five orders successfully achieves its main objective of providing an organized, engaging, and highly replayable 2D game environment. The system provides a unified platform where players can master localized maps, collect resources, and dynamically unlock new mechanics by defeating challenging bosses. The project demonstrates how modern development workflows can be used to solve game

design problems in a practical way. It not only provides entertainment but also encourages strategic resource management. The game is user-friendly, secure, and scalable for future improvements.

Acknowledgement

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