



FIT5057 Project Management Assignment Two – Team Assignment

Echoes of Seraphis

SEPTEMBER 2024

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Team number: 814

Applied class: 08



Contents

| | |
|---|----|
| DELIVERABLE 1: Project Integration Management..... | 2 |
| Task 1 Project Charter | 2 |
| DELIVERABLE 2: Project Scope Management..... | 5 |
| Task 2.1 Requirements Traceability Matrix (RTM) | 5 |
| Task 2.2 Project Scope Statement..... | 7 |
| DELIVERABLE 3: Project Work Breakdown Structure (WBS) and Schedule..... | 10 |
| Task 3.1 Work Breakdown Structure (WBS) | 10 |
| Task 3.2 Team collaboration and Short reflection..... | 14 |
| Task 3.3 Gantt Chart | 15 |
| DELIVERABLE 4: Project Cost Management | 18 |
| Task 4.1 Cost Model..... | 18 |
| Task 4.3 Assumptions | 22 |
| DELIVERABLE 5: Project Risk Management | 24 |
| Task 5.1 Risk Register | 24 |
| Task 5.2 Probability & Impact Rationale | 25 |
| Task 5.3 The Matrix & Analysis | 26 |
| DELIVERABLE 6: Project Quality Management | 29 |
| Task 6.1 Quality Standards/Requirements | 29 |
| Task 6.2 Metrics and Measurement..... | 30 |
| DELIVERABLE 7: Project Stakeholder and Communication Management | 31 |
| Task 7.1 Building Your Stakeholder Register | 31 |
| Task 7.2 Engagement Strategy | 32 |
| References | 33 |
| Exhibits | 35 |



DELIVERABLE 1: Project Integration Management

Task 1 Project Charter

Project Title: Echoes of Seraphis

Project Start Date: 2/9/2024

Projected Finish Date: 2/12/2025

Budget Information: \$1.180 Million (Due to the visual and development complexity of the game project, extra budget was allocated for this project, with \$3.32 million leftover to be allocated across the other three projects.)

Project Manager: Bao Ngoc Truong

Phone: 0481854696

Email: betty.truong@nexaforgestudios.com.au

Project Objectives:

1. Increase NexaForge Studios' annual revenue by 17% over the next three years

According to Newzoo's Global Games Market Report 2023, adventure games are among the top 5 revenue-generating genres on major gaming platforms, especially consoles (Newzoo, 2024). Adventure games account for 17.1% of console revenues and are projected to grow by 6.9% (Rocket Brush, 2024). This presents an opportunity for NexaForge Studios to capitalize on this trend with "Echoes of Seraphis," enhancing player retention through personalized experiences and community engagement (CacheFly Team, 2024; Lark, 2024).

2. Enhance player retention rate, achieving Day 1 Retention of 45%, Day 7 Retention of 30%, and Three-Month Retention of 16%

To ensure consistently high engagement and player retention rate, effective retention strategies will be implemented including immersive world-building and engaging combat for Day 1, regular content updates and social features for Day 7, and narrative expansions

for Day 90 (Park et al., 2017; Gupta, 2024). A high retention rate also indicates a dedicated player base, leading to more consistent revenue from in-game purchases and greater potential for long-term monetization.

Main Project Success Criteria:

- 1. Retention Rate Targets:** Success will be defined by meeting the player retention rate goals (Day 1 at 45%, Day 7 at 30%, and Day 90 at 16%) through robust analytics tracking.
- 2. Revenue Goals:** Achieve \$2.5 million in revenue in the first-year post-launch through a combination of game sales and in-app purchases.
- 3. Market Share:** Secure 2% market share in the action-adventure RPG genre by December 2025, measured through industry analysis reports.
- 4. Game Quality and Reception:** Positive reviews from both players and critics, scoring 80+ on major review platforms (Metacritic, Steam, etc.) and maintaining above 3% of engagement rate on Instagram (MarketingCharts, 2024).
- 5. Timely Delivery:** Successful completion of the project on time, following the 15-month timeline and delivering all key milestones by their respective deadlines.

Project development approach:

Hybrid Approach

The game project employs a hybrid development approach, combining Waterfall and Agile methodologies for optimal results. The design phase uses Waterfall, focusing on detailed upfront planning such as finalizing the Game Design Document (GDD) and establishing technical requirements. Full-scale development leverages Agile practices, especially for asset creation and AI/behavioural systems, allowing for flexibility and iterative improvements based on real-time feedback. Hybrid approaches, widely adopted in complex projects, provide the structure of traditional methods while benefiting from Agile's adaptability (Brouge, 2023; Papadakis & Tsironis, 2020). This balance ensures efficient workflows, tailored to meet the specific needs of this game development project.

Roles and Responsibilities

| Role in the project | Name | Position in the organisation/contract | Contact Information |
|-------------------------------|------------------|--|---|
| Project Manager | Bao Ngoc Truong | Responsible for day-to-day management, scheduling, and resource allocation. | Phone: 0481854696 E-mail: betty.truong@nexaforgestudios.com.au |
| Project Sponsor | Leila Al-Mansour | Oversees overall project direction and provides funding. | leila.mansour@nexaforgestudios.com.au |
| Lead Game Designer | Aisha Khan | Designs gameplay mechanics and oversees creative direction. | aisha.khan@nexaforgestudios.com.au |
| Technical Lead | Hiroshi Tanaka | Manages the coding and technical development of the game. | hiroshi.tanaka@nexaforgestudios.com.au |
| Art Director | Priya Patel | Leads the creation of visual assets, including character and environmental design. | priya.patel@nexaforgestudios.com.au |
| Quality Assurance Lead | Maria Rodriguez | Ensures the game meets quality standards through rigorous testing. | Maria.Rodriguez@nexaforgestudios.com.au |
| Marketing Manager | Kwame Mensah | Develops and executes the marketing plan to drive game awareness and sales. | Kwame.Mensah@nexaforgestudios.com.au |

Sign-off: (Signatures of all stakeholders listed)

Betty Truong

Bao Ngoc Truong

Aisha Khan

Aisha Khan

Priya Patel

Priya Patel

Leila Al-Mansour

Leila Al-Mansour

HIROSHI TANAKA

Hiroshi Tanaka

Maria Rodriguez

Maria Rodriguez

Kwame Mensah

Kwame Mensah

Comments:

No comments were given by the stakeholders.

DELIVERABLE 2: Project Scope Management

Task 2.1 Requirements Traceability Matrix (RTM)

| REQUIREMENTS TRACEABILITY MATRIX | | | | | |
|----------------------------------|---|--|------------------------|----------------------------|-------------------|
| Project Name: | Echoes of Seraphis | | | | |
| Project Manager Name: | Bao Ngoc Truong | | | | |
| Project Description: | Is is an action-adventure role-playing game (RPG) designed to increase the studio's market share and revenue within the Double-A gaming sector. Set in the fantastical world of Seraphis, players take on the role of Elyra, a spirit binder who wields ancient Echoes to restore balance in a realm teetering on the brink of chaos. The game combines exploration, puzzle-solving, and strategic combat, all tied together by a rich and immersive narrative. | | | | |
| <i>ID</i> | <i>Requirements (Functional or Non-Functional)</i> | <i>Assumption(s) and/or Customer Need(s)</i> | <i>Category</i> | <i>Source</i> | <i>Status</i> |
| R01 | Feature well-balanced, intuitive gameplay mechanics, including combat systems, exploration, and player interactions | Players need smooth, responsive gameplay with balanced challenges that will keep them engaged across various levels. | Functional | Game Design Document (GDD) | To be implemented |
| R02 | Implement dynamic AI/Behavioural system for NPCs | Players need engaging and challenging NPCs that adapt to gameplay | Functional Requirement | Development Team | To be implemented |
| R03 | Create hand-painted character and environmental art | Customers expect high visual quality and immersive art style | Quality Requirement | Art Direction Team | To be implemented |
| R04 | Develop a flexible monetization system with in-app purchases | Customers prefer a fair, non-exploitative monetization system | Functional Requirement | Development Team | To be implemented |

| | | | | | |
|-----|---|---|-------------------------|----------------------------|-------------------|
| R05 | Ensure game runs smoothly on target platforms (PC and Consoles) | Game needs to maintain high performance and stability | Performance Requirement | Development Team | To be implemented |
| R06 | Design and implement a story-driven gameplay experience | Players demand deep narrative immersion with multiple story paths | Functional Requirement | Game Design Team | To be implemented |
| R07 | Implement comprehensive testing and bug fixing phase | To ensure high quality at launch, the game must be thoroughly tested | Service Requirement | Quality Assurance Team | To be implemented |
| R08 | Include diverse levels and environments, each with unique challenges | Customers expect varied, immersive environments that promote exploration and replayability, aligning with action-adventure genre standards. | Functional Requirement | Game Design Document (GDD) | To be implemented |
| R09 | Immersive audio effects, including character dialogue, background music, and dynamic environmental sounds | Assumes high-quality sound design that complements the narrative and gameplay, enhancing the player's overall experience. | Functional Requirement | Audio Design Document | To be implemented |
| R10 | Maintain compliance with relevant legal and ethical standards | Ensure game complies with laws and ethical guidelines | Compliance Requirement | Project Manager | To be implemented |
| R11 | Implement features designed to boost player retention (e.g., progression systems, social features) | To meet player retention goals, features must be engaging and encourage continued play | Functional Requirement | Game Design Document | To be implemented |
| R12 | Optimize loading times and minimize latency | Players expect a seamless gaming experience without long loading times or delays | Performance Requirement | Development Team | To be implemented |
| R13 | Integrate cross-platform play functionality | To enhance player engagement and reach a wider audience, cross-platform compatibility is essential | Functional Requirement | Development Team | To be implemented |
| R14 | User interface (UI) must comply with ISO 9241-110:2020 standards for | Players require a user-friendly interface that is easy to navigate for all | Quality Requirement | UI/UX Design Team | To be implemented |

| | | | | | |
|-----|--|--|------------------------|-------------------------------------|-------------------|
| | ergonomics and accessibility | skill levels and accessible for everyone including those with disabilities | | | |
| R15 | Implement a robust save system with cloud backup | Players need a reliable way to save progress, accessible from multiple devices | Service Requirement | Development Team | To be implemented |
| R16 | Develop a compelling tutorial and onboarding experience | Effective onboarding is critical to engage new players and ensure they understand game mechanics | Functional Requirement | Game Design Document | To be implemented |
| R17 | Create diverse character customization options | Players value personalization and the ability to express individuality within the game | Functional Requirement | Art Direction Team | To be implemented |
| R18 | Meet the certification requirements of Sony, Microsoft, and Nintendo platforms | Assumes compliance with all necessary platform guidelines for release, including performance and security standards. | Compliance Requirement | Platform Certification Requirements | To be implemented |

Task 2.2 Project Scope Statement

| PROJECT | DATE |
|--|------------|
| Echoes of Seraphis | 23/09/2024 |
| PROJECT BACKGROUND, OBJECTIVES and OUTCOMES | |
| <p>According to Newzoo's Global Games Market Report 2023, adventure games rank among the top five revenue-generating genres on major platforms, particularly consoles, where they account for 17.1% of revenues and are projected to grow by 6.9% (Newzoo, 2024; Rocket Brush, 2024). Building on this trend, the Echoes of Seraphis project seeks to develop and launch a high-quality action-adventure RPG that will enhance NexaForge Studios' market presence and increase revenue. The project focuses on achieving specific player retention targets, which are crucial for ensuring long-term engagement and profitability.</p> | |

The Echoes of Seraphis project will deliver a high-quality, cross-platform RPG game designed to maximize player retention and long-term engagement. Key deliverables include a comprehensive Game Design Document (GDD) that ensures balanced gameplay mechanics, immersive storytelling, and seamless UI/UX design to keep players invested. The AI/Behavioral Systems will enhance player retention by providing dynamic and adaptive enemy encounters, as well as real-time ally support, creating varied, engaging gameplay experiences. The final game build will feature multiple endings and optimized performance, encouraging replayability and ongoing player engagement.

HIGH-LEVEL PROJECT REQUIREMENTS, FUNCTIONAL & NON-FUNCTIONAL

The project scope for Echoes of Seraphis includes developing a high-quality RPG game with both functional and non-functional requirements to meet stakeholder needs. The functional requirements involve key capabilities such as implementing dynamic AI/behavioral systems that allow NPCs to adapt to player actions, creating an engaging narrative with branching storylines influenced by player choices, ensuring cross-platform compatibility so the game functions smoothly on both PC and console platforms. Additionally, a balanced monetization strategy will be integrated, focusing on fair in-app purchases.

The non-functional requirements encompass qualities like usability, ensuring the game is intuitive and user-friendly; performance, guaranteeing smooth gameplay without lags; reliability, maintaining stability and avoiding crashes across different platforms; and security, protecting player data and in-game transactions. These requirements are essential for delivering a compelling, secure, and high-performing gaming experience.

DELIVERABLES

1. **Game Design Document (GDD):** The GDD acts as the blueprint for the game, outlining gameplay mechanics, narrative structure, characters, and UI/UX design.
Requirements:

- Detailed description of the Echo system, where players harness ancient powers in Seraphis, balancing exploration, combat, and puzzle-solving (Source: Game Concept Planning).
 - Character development, focusing on abilities and interactions, ensures consistent progression and immersive storytelling (Source: Project Manager).
 - UI/UX specifications to guarantee accessibility and consistency across platforms (Source: UI/UX Team).
2. **AI/Behavioral Systems:** This system governs NPC behavior, enabling dynamic enemy and ally interactions.
- Requirements:**
- Adaptive enemy tactics for varied, challenging encounters based on player strategy (Source: Game Design Team).
 - Allied spirit system for real-time assistance during combat and exploration (Source: Game Design Team).
 - Seamless AI interactions with different environments (Source: Technical Requirements).
3. **Final Game Build:** The polished version, optimized for PC and consoles.
- Requirements:**
- Optimized performance across platforms (Source: Platform Compliance).
 - Multiple endings for enhanced replayability (Source: Business Objectives).
 - High-quality graphics and fluid combat mechanics (Source: Art and Animation Team).

ASSUMPTIONS

The game is intended for RPG players familiar with action-adventure genres on both PC and console platforms. There is sufficient demand for a new RPG title within the Double-A gaming sector, supporting the projected player retention and revenue goals. All key stakeholders agree on the project's objectives, scope, and deliverables, with no major changes expected during development.

DELIVERABLE 3: Project Work Breakdown Structure (WBS) and Schedule

Task 3.1 Work Breakdown Structure (WBS)

0.0 Game Design

1.0 Develop Project Concept and Plan

1.1 Game Concept Planning

1.1.1 Develop Concept Overview

1.1.1.1 Conduct market research

1.1.1.2 Define the core game idea

1.1.2 Create the Game Design Document (GDD)

1.1.2.1 Outline gameplay mechanics

1.1.2.2 Develop the storyline, world-building elements, and character profiles (level 4)

1.1.2.3 Establish the visual style with concept art and design inspirations

1.1.2.4 Specify technical requirements, including platforms and game engine

1.2 Project Execution Planning

1.2.1 Define Project Scope

1.2.1.1 Compile a list of game features and content

1.2.1.2 Set key milestones with specific deadlines

1.2.1.3 Prepare a comprehensive budget

1.2.2 Assemble Team and Resources

1.2.2.1 Identify Required Roles and Skills 2 days

1.2.2.2 Recruit and Onboard Team Members

1.2.2.3 Assign roles and responsibilities to team members

1.2.2.4 Determine the technology stack

1.2.2.5 Identify External Resources

1.2.3 Conduct Risk Assessment

1.2.3.1 Research and Select Vendors

1.2.3.2 Draft Contracts and Agreements

1.2.3.3 Integrate Draft Plans with Internal Planning

1.2.3.4 Prepare Agreements and Plans for Stakeholder Review

1.2.4 Draft Marketing and Distribution Plan

1.2.4.1 Develop initial marketing plan

1.2.4.2 Identify distribution channels

1.3 Present for Approval

1.3.1 Prepare a presentation of the project concept and execution plan

1.3.2 Obtain stakeholder buy-in and official approval

1.4 Implementation of Project Resources and Agreements

1.4.1 Purchase Hardware and Software

- 1.4.1.1 Procure necessary hardware (e.g., development workstations, servers)
 - 1.4.1.2 Procure necessary software (e.g., licenses for game engines, tools)
 - 1.4.2 Finalize Vendor Agreements and Contracts
 - 1.4.2.1 Review and finalize all vendor contracts
 - 1.4.2.2 Ensure all legal and compliance requirements are met
 - 1.4.2.3 Set up accounts and establish relationships with vendors
 - 1.4.2.4 Schedule kickoff meetings with vendors
 - 1.4.3 Set Up Development Environment
 - 1.4.3.1 Install and configure software
 - 1.4.3.2 Set up internal/external communication channels
 - 1.4.3.3 Test development tools and environment to ensure readiness
 - 1.4.4 Set Up Cybersecurity Measures
 - 1.4.4.1 Implement encryption for local data storage
 - 1.4.4.2 Apply code obfuscation techniques to protect game assets and intellectual property
 - 1.4.4.3 Integrate basic anti-piracy protections
 - 1.4.4.4 Establish secure installation/update processes
- 2.0 Pre-production
 - 2.1 Finalize Game Design Document (GDD)
 - 2.1.1 Develop a complete breakdown of game mechanics
 - 2.1.2 Finalize the storyline, character development, and world-building elements
 - 2.1.3 Confirm technical specifications
 - 2.2 Complete Prototyping
 - 2.2.1 Create initial prototypes for core gameplay mechanics
 - 2.2.1.1 Define Core Mechanics
 - 2.2.1.2 Program Core Mechanics
 - 2.2.1.3 Assemble Basic Level Layout
 - 2.2.1.4 Combine Mechanics and Level Design
 - 2.2.1.5 Create Placeholder Graphics
 - 2.2.1.6 Implement Placeholder Assets
 - 2.2.2 Internal Playtesting
 - 2.2.2.1 Conduct internal playtesting sessions
 - 2.2.2.2 Review feedback and make necessary adjustments
 - 2.2.3 Stakeholder Feedback and Iteration
 - 2.2.3.1 Identify and schedule with stakeholders
 - 2.2.3.2 Review and implement changes from feedback
 - 2.2.4 Final Pre-production Deliverables
 - 2.2.4.1 Finalize Game Design Document
 - 2.2.4.2 Review pre-production work

- 2.2.4.3 Sign off pre-production work
- 2.3 Risk Management and Contingency Planning
 - 2.3.1 Review and Update Risk Assessment
 - 2.3.2 Adjust Mitigation Strategies for Pre-production Risks
 - 2.3.3 Develop Contingency Plans
- 3.0 Full Game Development and Production
- 3.1 Expand the Game Design Document (GDD)
 - 3.1.1 Update the GDD
 - 3.1.2 Finalize all designs
 - 3.1.2.1 Finalize the detailed design of game features
 - 3.1.2.2 Finalize the detailed design of levels
 - 3.1.2.3 Finalize the detailed design of assets.
- 3.2 Asset Creation
 - 3.2.1 Create art assets for the game
 - 3.2.1.1 Create Character Models
 - 3.2.1.2 Create Environmental Assets
 - 3.2.1.3 Create Prop and Item Assets
 - 3.2.2 Create Animation Assets for the game
 - 3.2.2.1 Character Animation Development
 - 3.2.2.2 Environmental and Object Animation Development
 - 3.2.3 Create Audio Assets for the game
- 3.3 Code Development
 - 3.3.1 Start full-scale development of the game's codebase
 - 3.3.1.1 Set Up the Development Environment
 - 3.3.1.2 Develop Core Gameplay Systems
 - 3.3.1.3 Develop the Game's UI/UX
 - 3.3.1.4 Build Initial Level and Environment Mechanics
 - 3.3.1.5 Develop Character and NPC Behaviours
 - 3.3.1.6 Implement Game State Management
 - 3.3.1.7 Integrate Audio Systems
 - 3.3.1.8 Optimize Code for Performance
 - 3.3.1.9 Conduct Regular Code Reviews
 - 3.3.1.10 Integrate Third-Party Plugins and Middleware
 - 3.3.2 Integrate assets into the game engine
 - 3.3.3 Build out levels and environments
- 3.4 Risk Management and Contingency Planning
 - 3.4.1 Monitor Production Risks

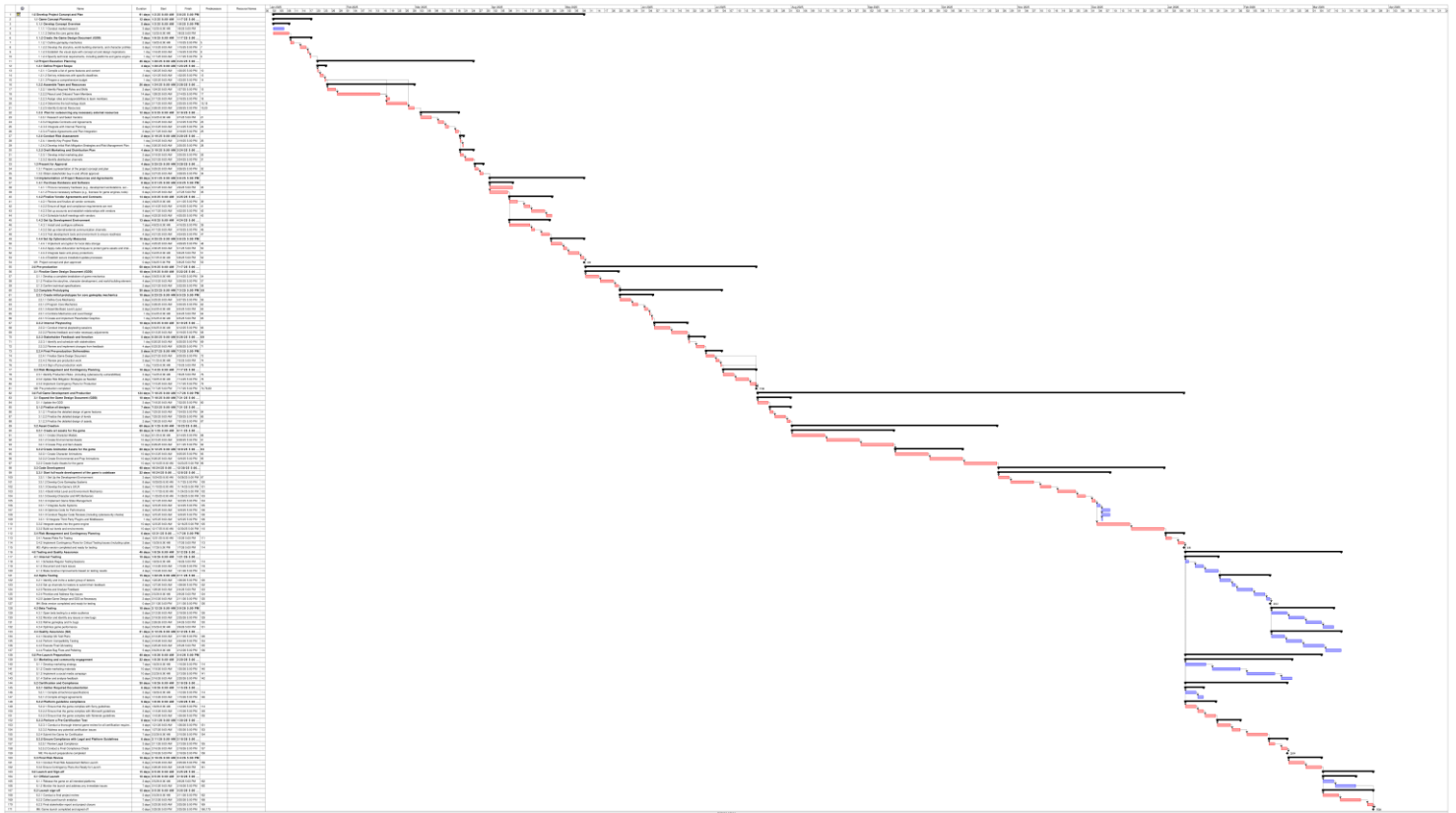
- 3.4.2 Update Risk Mitigation Strategies as Needed
 - 3.4.3 Implement Contingency Plans for Production
- 4.0 Testing and Quality Assurance
 - 4.1 Internal Testing
 - 4.1.1 Schedule Regular Testing Sessions
 - 4.1.2 Document and track issues
 - 4.1.3 Make iterative improvements based on testing results
 - 4.2 Alpha Testing
 - 4.2.1 Identify and invite a select group of testers
 - 4.2.2 Set up channels for testers to submit their feedback
 - 4.2.3 Review and Analyse Feedback
 - 4.2.4 Prioritize and Address Key Issues
 - 4.2.5 Update Game Design and GDD as Necessary
 - 4.3 Beta Testing
 - 4.3.1 Invite more players for beta testing
 - 4.3.2 Monitor and identify any issues or new bugs
 - 4.3.3 Refine gameplay and fix bugs
 - 4.3.4 Optimize game performance
 - 4.4 Quality Assurance (QA)
 - 4.4.1 Develop QA Test Plans
 - 4.4.2 Perform Compatibility Testing
 - 4.4.3 Execute Final QA testing
 - 4.4.4 Finalize Bug Fixes and Polishing
 - 4.5 Risk Management and Contingency Planning
 - 4.5.1 Assess Risks During Testing
 - 4.5.2 Implement Contingency Plans for Critical Testing Issues
- 5.0 Pre-Launch Preparations
 - 5.1 Marketing and community engagement
 - 5.1.1 Develop marketing strategy
 - 5.1.2 Create marketing materials
 - 5.1.3 Implement a social media campaign
 - 5.1.4 Gather and analyse feedback
 - 5.2 Certification and Compliance
 - 5.2.1 Gather Required Documentation
 - 5.2.1.1 Compile all technical specifications
 - 5.2.1.2 Compile all legal agreements
 - 5.2.2 Platform guideline compliance

- 5.2.2.1 Ensure that the game complies with Sony guidelines
 - 5.2.2.2 Ensure that the game complies with Microsoft guidelines
 - 5.2.2.3 Ensure that the game complies with Nintendo guidelines
- 5.2.3 Perform a Pre-Certification Test
 - 5.2.3.1 Conduct a thorough internal game review for all certification requirements
 - 5.2.3.2 Address any potential certification issues
- 5.2.4 Submit the Game for Certification
- 5.2.5 Ensure Compliance with Legal and Platform Guidelines
 - 5.2.5.1 Review Legal Compliance
 - 5.2.5.2 Conduct a Final Compliance Check
- 5.3 Final Risk Review
 - 5.3.1 Conduct Final Risk Assessment Before Launch
 - 5.3.2 Ensure Contingency Plans Are Ready for Launch
- 6.0 Launch and Sign-off
- 6.1 Official Launch
 - 6.1.1 Release the game on all intended platforms
 - 6.1.2 Monitor the launch and address any immediate issues
- 6.2 Launch sign-off
 - 6.2.1 Conduct a final project review
 - 6.2.2 Collect post-launch analytics
 - 6.2.3 Final stakeholder report and project closure

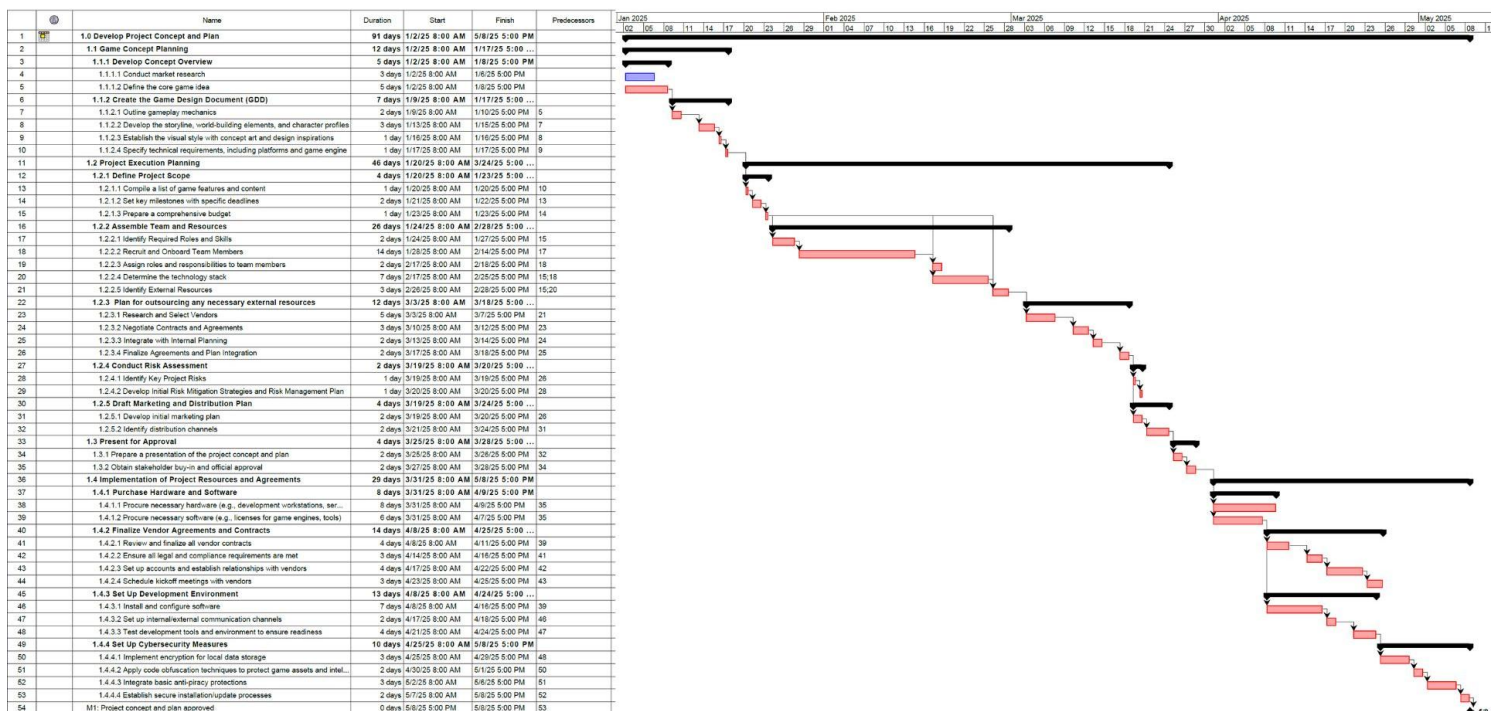
Task 3.2 Team collaboration and Short reflection

Most of our team members did a great job creating their own WBS. They all aligned with each project's goals and extended up to level 3 or 4 where necessary. The work packages also demonstrated the task item effectively. One of the feedback items I got about my Gantt Chart is that my task of creating game assets needs to be broken into smaller tasks for better risk management and more detailed plan. I reflected on all feedback received from my teammates and fix my WBS accordingly. Therefore, I have broken it down into character, environmental and prop items with shorter periods of time for each task.

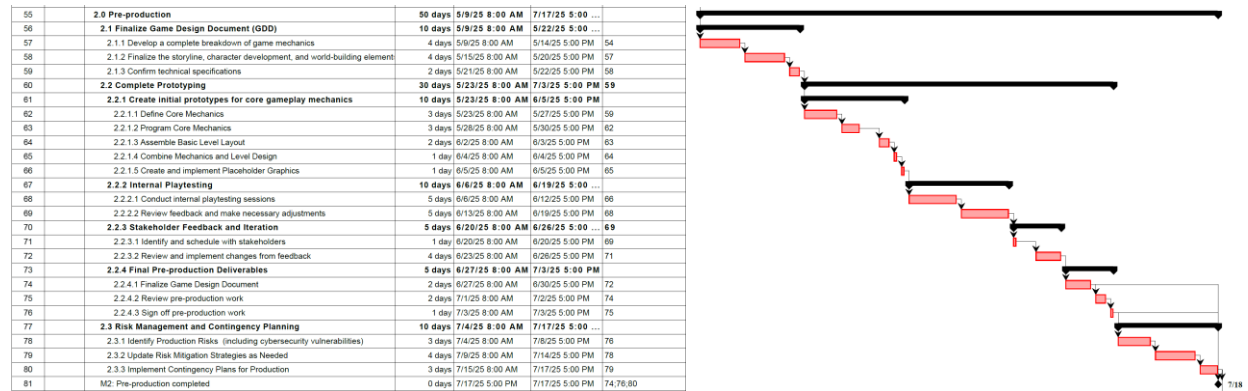
Task 3.3 Gantt Chart



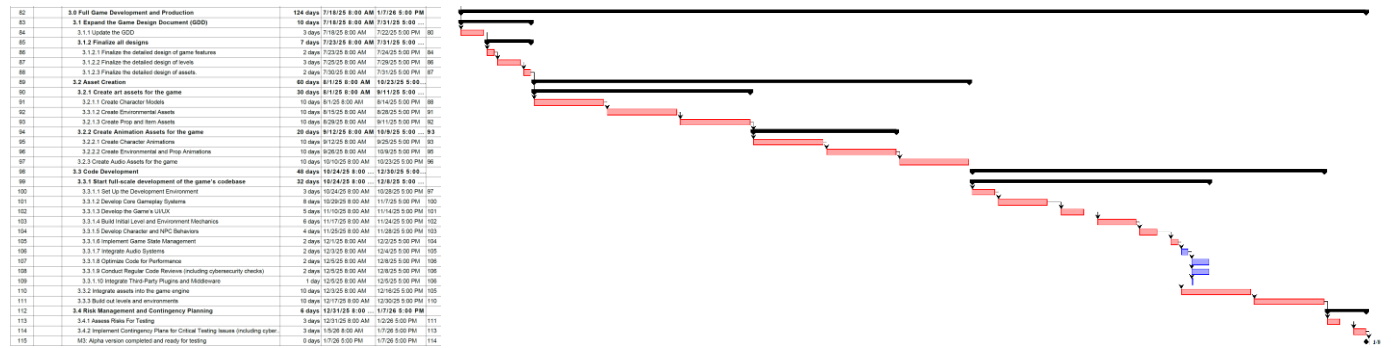
Phase 1: Develop project concept and plan



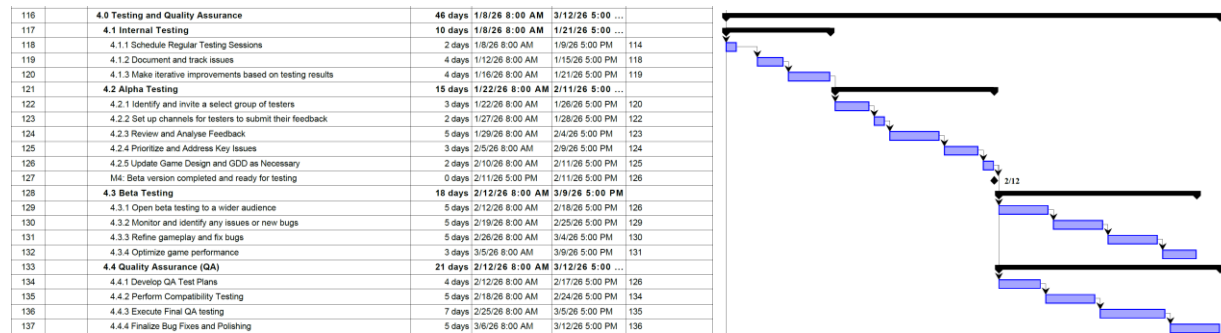
Phase 2: Pre-production



Phase 3: Production

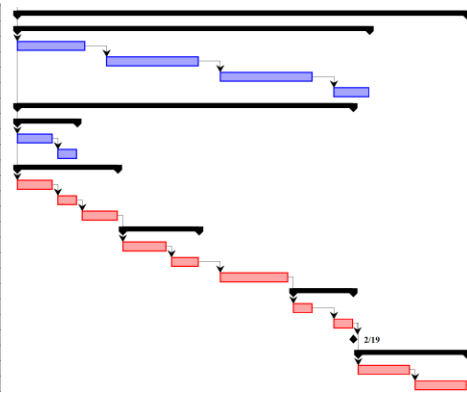


Phase 4: Testing and assurance



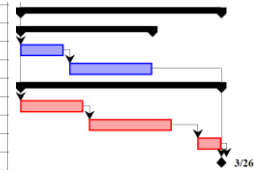
Phase 5: Pre-launch preparation

| | | | | | |
|-----|--|----------------|------------------------|-------------------------|-----|
| 138 | 5.0 Pre-Launch Preparations | 40 days | 1/8/26 8:00 AM | 3/4/26 5:00 PM | |
| 139 | 5.1 Marketing and community engagement | 32 days | 1/8/26 8:00 AM | 2/20/26 5:00 ... | |
| 140 | 5.1.1 Develop marketing strategy | 7 days | 1/8/26 8:00 AM | 1/16/26 5:00 PM | 114 |
| 141 | 5.1.2 Create marketing materials | 10 days | 1/19/26 8:00 AM | 1/30/26 5:00 PM | 140 |
| 142 | 5.1.3 Implement a social media campaign | 10 days | 2/2/26 8:00 AM | 2/13/26 5:00 PM | 141 |
| 143 | 5.1.4 Gather and analyse feedback | 5 days | 2/19/26 8:00 AM | 2/20/26 5:00 PM | 142 |
| 144 | 5.2 Certification and Compliance | 30 days | 1/8/26 8:00 AM | 2/18/26 5:00 ... | |
| 145 | 5.2.1 Gather Required Documentation | 6 days | 1/8/26 8:00 AM | 1/15/26 5:00 ... | |
| 146 | 5.2.1.1 Compile all technical specifications | 3 days | 1/8/26 8:00 AM | 1/12/26 5:00 PM | 114 |
| 147 | 5.2.1.2 Compile all legal agreements | 3 days | 1/13/26 8:00 AM | 1/15/26 5:00 PM | 146 |
| 148 | 5.2.2 Platform guideline compliance | 9 days | 1/8/26 8:00 AM | 1/20/26 5:00 ... | |
| 149 | 5.2.2.1 Ensure that the game complies with Sony guidelines | 3 days | 1/8/26 8:00 AM | 1/12/26 5:00 PM | 114 |
| 150 | 5.2.2.2 Ensure that the game complies with Microsoft guidelines | 3 days | 1/13/26 8:00 AM | 1/15/26 5:00 PM | 149 |
| 151 | 5.2.2.3 Ensure that the game complies with Nintendo guidelines | 3 days | 1/16/26 8:00 AM | 1/20/26 5:00 PM | 150 |
| 152 | 5.2.3 Perform a Pre-Certification Test | 8 days | 1/21/26 8:00 AM | 1/30/26 5:00 ... | |
| 153 | 5.2.3.1 Conduct a thorough internal game review for all certification require... | 4 days | 1/21/26 8:00 AM | 1/26/26 5:00 PM | 151 |
| 154 | 5.2.3.2 Address any potential certification issues | 4 days | 1/27/26 8:00 AM | 1/30/26 5:00 PM | 153 |
| 155 | 5.2.4 Submit the Game for Certification | 7 days | 2/2/26 8:00 AM | 2/10/26 5:00 PM | 154 |
| 156 | 5.2.5 Ensure Compliance with Legal and Platform Guidelines | 6 days | 2/11/26 8:00 AM | 2/18/26 5:00 ... | |
| 157 | 5.2.5.1 Review Legal Compliance | 3 days | 2/11/26 8:00 AM | 2/13/26 5:00 PM | 155 |
| 158 | 5.2.5.2 Conduct a Final Compliance Check | 3 days | 2/16/26 8:00 AM | 2/18/26 5:00 PM | 157 |
| 159 | M5: Pre-launch preparations completed | 0 days | 2/18/26 5:00 PM | 2/18/26 5:00 PM | 158 |
| 160 | 5.3 Final Risk Review | 10 days | 2/19/26 8:00 AM | 3/4/26 5:00 PM | |
| 161 | 5.3.1 Conduct Final Risk Assessment Before Launch | 5 days | 2/19/26 8:00 AM | 2/25/26 5:00 PM | 158 |
| 162 | 5.3.2 Ensure Contingency Plans Are Ready for Launch | 5 days | 2/26/26 8:00 AM | 3/4/26 5:00 PM | 161 |



Phase 6: Launch and sign-off

| | | | | | |
|-----|---|----------------|-----------------------|-------------------------|---------|
| 163 | 6.0 Launch and Sign-off | 15 days | 3/5/26 8:00 AM | 3/25/26 5:00 ... | |
| 164 | 6.1 Official Launch | 10 days | 3/5/26 8:00 AM | 3/18/26 5:00 ... | |
| 165 | 6.1.1 Release the game on all intended platforms | 3 days | 3/5/26 8:00 AM | 3/9/26 5:00 PM | 162 |
| 166 | 6.1.2 Monitor the launch and address any immediate issues | 7 days | 3/10/26 8:00 AM | 3/18/26 5:00 PM | 165 |
| 167 | 6.2 Launch sign-off | 15 days | 3/5/26 8:00 AM | 3/25/26 5:00 ... | |
| 168 | 6.2.1 Conduct a final project review | 5 days | 3/5/26 8:00 AM | 3/11/26 5:00 PM | 162 |
| 169 | 6.2.2 Collect post-launch analytics | 7 days | 3/12/26 8:00 AM | 3/20/26 5:00 PM | 168 |
| 170 | 6.2.3 Final stakeholder report and project closure | 3 days | 3/23/26 8:00 AM | 3/25/26 5:00 PM | 169 |
| 171 | M6: Game launch completed and signed off | 0 days | 3/25/26 5:00 PM | 3/25/26 5:00 PM | 168;170 |



DELIVERABLE 4: Project Cost Management

Task 4.1 Cost Model

| Project Cost Estimate Created September 24 | | | | | | |
|--|------------------|------------|-------------------|--------------|--------------------|------------|
| WBS Items | # of Unit/ Hours | Daily Rate | Cost of Unit/Hour | Subtotal | WBS Level 2 Totals | % of total |
| 1.0 Develop Project Concept and Plan | | | | | | |
| 1.1 Game Concept Planning | | | | | \$ 22,595.92 | 1.92% |
| Project Manager | 96 | \$ 900.00 | \$ 112.50 | \$ 10,800.00 | | |
| Lead Game Designer | 96 | | \$ 53.85 | \$ 5,169.60 | | |
| Game Designer | 40 | | \$ 53.85 | \$ 2,154.00 | | |
| Senior Developer (.Net/Java) | 8 | \$ 900.00 | \$ 112.50 | \$ 900.00 | | |
| Narrative Designer/Writer | 64 | \$ 385.00 | \$ 48.13 | \$ 3,080.00 | | |
| Art Director | 8 | | \$ 61.54 | \$ 492.32 | | |
| 1.2 Project Execution Planning | | | | | \$ 31,524.28 | 2.68% |
| Project Manager | 184 | \$ 900.00 | \$ 112.50 | \$ 20,700.00 | | |
| Recruitment Specialist | 72 | | \$ 47.90 | \$ 3,448.80 | | |
| Lead Game Designer | 80 | | \$ 53.85 | \$ 4,308.00 | | |
| Procurement Specialist | 20 | | \$ 58.99 | \$ 1,179.80 | | |
| Marketing Manager | 32 | | \$ 58.99 | \$ 1,887.68 | | |
| 1.3 Present for Approval | | | | | \$ 4,461.60 | 0.38% |
| Project Manager | 32 | \$ 900.00 | \$ 112.50 | \$ 3,600.00 | | |
| Lead Game Designer | 16 | | \$ 53.85 | \$ 861.60 | | |
| 1.4 Implementation of Project Resources and Agreements | | | | | \$ 157,616.44 | 13.39% |
| Project Team | | | | | | |
| Project Manager | 160 | \$ 900.00 | \$ 112.50 | \$ 18,000.00 | | |
| Senior Developer (.Net/Java) | 96 | \$ 900.00 | \$ 112.50 | \$ 10,800.00 | | |
| Legal Advisor | 56 | | \$ 60.24 | \$ 3,373.44 | | |
| Procurement Specialist | 32 | | \$ 58.99 | \$ 1,887.68 | | |
| Hardware | | | | | | |
| PCs | 20 | | \$ 4,042.00 | \$ 80,840.00 | | |
| Storage Server (AWS S3 Standard) | 1 | | \$ 276.00 | \$ 276.00 | | |
| Testing Server - Reserved rate (AWS EC2 t3.medium - 2 vCPUs, 4 GB RAM) | 1 | | \$ 180.00 | \$ 180.00 | | |
| Development Servers- Reserved rate (AWS EC2 t3.medium - 2 vCPUs, 4 GB RAM) | 2 | | \$ 252.00 | \$ 504.00 | | |
| Software | | | | | | |
| Unity Pro Annual Package | 5 | | \$ 2,040.00 | \$ 10,200.00 | | |
| Adobe Creative Cloud | 4 | | \$ 1,547.83 | \$ 6,191.32 | | |
| Github Team (Version Control) | 11 | | \$ 4.00 | \$ 44.00 | | |
| 3Ds Max Autodesk | 6 | | \$ 2,820.00 | \$ 16,920.00 | | |
| Jira Premium Annual - 15 users (Project Management) | 1 | | \$ 2,400.00 | \$ 2,400.00 | | |
| FMOD (Audio Middleware) | 1 | | \$ 6,000.00 | \$ 6,000.00 | | |
| 2.0 Pre-production | | | | | | |
| 2.1 Finalize Game Design Document (GDD) | | | | | \$ 18,294.40 | 1.55% |
| Project Manager | 80 | \$ 900.00 | \$ 112.50 | \$ 9,000.00 | | |
| Lead Game Designer | 48 | | \$ 53.85 | \$ 2,584.80 | | |
| Game Designers | 96 | | \$ 53.85 | \$ 5,169.60 | | |
| Narrative Designer/Writer | 32 | \$ 385.00 | \$ 48.13 | \$ 1,540.00 | | |
| 2.2 Complete Prototyping | | | | | \$ 45,115.32 | 3.83% |
| Project Manager | 120 | \$ 900.00 | \$ 112.50 | \$ 13,500.00 | | |
| Lead Game Designer | 80 | | \$ 53.85 | \$ 4,308.00 | | |
| Game Designers | 40 | | \$ 53.85 | \$ 2,154.00 | | |
| Senior Developer (.Net/Java) | 160 | \$ 900.00 | \$ 112.50 | \$ 18,000.00 | | |
| Art Director | 8 | | \$ 61.54 | \$ 492.32 | | |
| QA tester | 40 | \$ 950.00 | \$ 118.75 | \$ 4,750.00 | | |
| Visual Studio | | | \$ 1,911.00 | \$ 1,911.00 | | |
| 2.3 Risk Management and Contingency Planning | | | | | \$ 13,800.00 | 1.17% |
| Project Manager | 48 | \$ 900.00 | \$ 112.50 | \$ 5,400.00 | | |
| Senior Developer (.Net/Java) | 24 | \$ 900.00 | \$ 112.50 | \$ 2,700.00 | | |
| QA Manager | 48 | \$ 950.00 | \$ 118.75 | \$ 5,700.00 | | |
| 3.0 Full Game Development and Production | | | | | | |
| 3.1 Expand the Game Design Document (GDD) | | | | | \$ 8,854.24 | 0.75% |
| Project Manager | 24 | \$ 900.00 | \$ 112.50 | \$ 2,700.00 | | |
| Lead Game Designer | 96 | | \$ 53.85 | \$ 5,169.60 | | |
| Art Director | 16 | | \$ 61.54 | \$ 984.64 | | |
| 3.2 Asset Creation | | | | | \$ 38,426.40 | 3.26% |
| Project Manager | 120 | \$ 900.00 | \$ 112.50 | \$ 13,500.00 | | |
| Art Director | 120 | | \$ 61.54 | \$ 7,384.80 | | |
| 3D Artists | 160 | \$ 343.84 | \$ 42.98 | \$ 6,876.80 | | |
| Animators | 160 | | \$ 51.03 | \$ 8,164.80 | | |
| Audio Designer | 80 | \$ 250.00 | \$ 31.25 | \$ 2,500.00 | | |

| | | | | | | |
|---|-----|-----------|---------------|---------------|------------------------|---------------|
| 3.3 Code Development | | | | | \$ 135,061.52 | 11.47% |
| Project Manager | 192 | \$ 900.00 | \$ 112.50 | \$ 21,600.00 | | |
| Senior Developer (.Net/Java) | 192 | \$ 900.00 | \$ 112.50 | \$ 21,600.00 | | |
| Full Stack Developers (.Net/Java) | 768 | \$ 900.00 | \$ 112.50 | \$ 86,400.00 | | |
| UI/UX Designer | 40 | \$ 700.00 | \$ 87.50 | \$ 3,500.00 | | |
| AI Specialist | 32 | \$ 365.38 | \$ 45.67 | \$ 1,461.52 | | |
| Audio Designer | 16 | \$ 250.00 | \$ 31.25 | \$ 500.00 | | |
| 3.4 Risk Management and Contingency Planning | | | | | \$ 12,046.14 | 1.02% |
| Project Manager | 48 | \$ 900.00 | \$ 112.50 | \$ 5,400.00 | | |
| Senior Developer (.Net/Java) | 24 | \$ 900.00 | \$ 112.50 | \$ 2,700.00 | | |
| AI Specialist | 24 | \$ 365.38 | \$ 45.67 | \$ 1,096.14 | | |
| QA Manager | 24 | \$ 950.00 | \$ 118.75 | \$ 2,850.00 | | |
| 4.0 Testing and Quality Assurance | | | | | | |
| 4.1 Internal Testing | | | | | \$ 19,536.14 | 1.66% |
| Project Manager | 8 | \$ 900.00 | \$ 112.50 | \$ 900.00 | | |
| Senior Developer (.Net/Java) | 32 | \$ 900.00 | \$ 112.50 | \$ 3,600.00 | | |
| QA Manager | 40 | \$ 950.00 | \$ 118.75 | \$ 4,750.00 | | |
| AI Specialist | 24 | \$ 365.38 | \$ 45.67 | \$ 1,096.14 | | |
| Test Analyst | 80 | \$ 700.00 | \$ 87.50 | \$ 7,000.00 | | |
| Testing (10% of 4.1 Total) | | | | \$ 2,190.00 | | |
| 4.2 Alpha Testing | | | | | \$ 26,522.76 | 2.25% |
| Project Manager | 40 | \$ 900.00 | \$ 112.50 | \$ 4,500.00 | | |
| QA Manager | 120 | \$ 950.00 | \$ 118.75 | \$ 14,250.00 | | |
| Senior Developer (.Net/Java) | 40 | \$ 900.00 | \$ 112.50 | \$ 4,500.00 | | |
| Game Designer | 16 | | \$ 53.85 | \$ 861.60 | | |
| Testing (10% of 4.2 Total) | | | | \$ 2,411.16 | | |
| 4.3 Beta Testing | | | | | \$ 39,100.12 | 3.32% |
| Project Manager | 72 | \$ 900.00 | \$ 112.50 | \$ 8,100.00 | | |
| Community Manager | 144 | | \$ 61.48 | \$ 8,853.12 | | |
| Senior Developer (.Net/Java) | 104 | \$ 900.00 | \$ 112.50 | \$ 11,700.00 | | |
| Game Designer | 20 | | \$ 53.85 | \$ 1,077.00 | | |
| Performance Engineer | 12 | | \$ 484.62 | \$ 5,815.44 | | |
| Testing (10% of 4.3 Total) | | | | \$ 3,554.56 | | |
| 4.4 Quality Assurance (QA) | | | | | \$ 50,289.14 | 4.27% |
| QA Manager | 84 | \$ 950.00 | \$ 118.75 | \$ 9,975.00 | | |
| Test Analyst | 128 | \$ 700.00 | \$ 87.50 | \$ 11,200.00 | | |
| Senior Developer (.Net/Java) | 48 | \$ 900.00 | \$ 112.50 | \$ 5,400.00 | | |
| Performance Engineer | 20 | | \$ 484.62 | \$ 9,692.40 | | |
| Project Manager | 84 | \$ 900.00 | \$ 112.50 | \$ 9,450.00 | | |
| Testing (10% of 4.4 Total) | | | | \$ 4,571.74 | | |
| 5.0 Pre-Launch Preparations | | | | | | |
| 5.1 Marketing and community engagement | | | | | \$ 202,067.22 | 17.17% |
| Marketing Manager | 128 | | \$ 58.99 | \$ 7,550.72 | | |
| Community Manager | 100 | | \$ 61.48 | \$ 6,148.00 | | |
| Agency Fees | | | \$ 188,368.50 | \$ 188,368.50 | | |
| 5.2 Certification and Compliance | | | | | \$ 52,791.52 | 4.48% |
| Project Manager | 240 | \$ 900.00 | \$ 112.50 | \$ 27,000.00 | | |
| QA Manager | 64 | \$ 950.00 | \$ 118.75 | \$ 7,600.00 | | |
| Senior Developer (.Net/Java) | 136 | \$ 900.00 | \$ 112.50 | \$ 15,300.00 | | |
| Legal Advisor | 48 | | \$ 60.24 | \$ 2,891.52 | | |
| 5.3 Final Risk Review | | | | | \$ 18,250.00 | 1.55% |
| Project Manager | 80 | \$ 900.00 | \$ 112.50 | \$ 9,000.00 | | |
| Senior Developer (.Net/Java) | 40 | \$ 900.00 | \$ 112.50 | \$ 4,500.00 | | |
| QA Manager | 40 | \$ 950.00 | \$ 118.75 | \$ 4,750.00 | | |
| 6.0 Launch and Sign-off | | | | | | |
| 6.1 Official Launch | | | | | \$ 16,942.88 | 1.44% |
| Project Manager | 80 | \$ 900.00 | \$ 112.50 | \$ 9,000.00 | | |
| Senior Developer (.Net/Java) | 40 | \$ 900.00 | \$ 112.50 | \$ 4,500.00 | | |
| Community Manager | 56 | | \$ 61.48 | \$ 3,442.88 | | |
| 6.2 Launch sign-off | | | | | \$ 28,546.44 | 2.43% |
| Project Manager | 120 | \$ 900.00 | \$ 112.50 | \$ 13,500.00 | | |
| Senior Developer (.Net/Java) | 56 | \$ 900.00 | \$ 112.50 | \$ 6,300.00 | | |
| Community Manager | 28 | | \$ 61.48 | \$ 1,721.44 | | |
| Data Analyst | 28 | \$ 650.00 | \$ 81.25 | \$ 2,275.00 | | |
| QA Manager | 40 | \$ 950.00 | \$ 118.75 | \$ 4,750.00 | | |
| 7. Reserves (20% of total) | | | | \$ 235,232.25 | \$ 235,232.25 | 19.98% |
| Total | | | | | \$ 1,177,074.73 | 100% |

Task 4.2 Cost Baseline

| Project Cost Baseline Created September 24 | | | | | | |
|--|-------------|-------------|-------------|---------|---------|--------------|
| WBS Items | Quarter | | | | | Total |
| | Q1 2025 | Q2 2025 | Q3 2025 | Q4 2025 | Q1 2026 | |
| 1.0 Develop Project Concept and Plan | | | | | | |
| 1.1 Game Concept Planning | | | | | | |
| Project Manager | \$10,800.00 | | | | | \$ 10,800.00 |
| Lead Game Designer | \$ 5,169.60 | | | | | \$ 5,169.60 |
| Game Designer | \$ 2,154.00 | | | | | \$ 2,154.00 |
| Senior Developer (.Net/Java) | \$ 900.00 | | | | | \$ 900.00 |
| Narrative Designer/Writer | \$ 3,080.00 | | | | | \$ 3,080.00 |
| Art Director | \$ 492.32 | | | | | \$ 492.32 |
| 1.2 Project Execution Planning | | | | | | |
| Project Manager | \$20,700.00 | | | | | \$ 20,700.00 |
| HR/Recruitment Specialist | \$ 3,448.80 | | | | | \$ 3,448.80 |
| Lead Game Designer | \$ 4,308.00 | | | | | \$ 4,308.00 |
| Procurement Specialist | \$ 1,179.80 | | | | | \$ 1,179.80 |
| Marketing Manager | \$ 1,887.68 | | | | | \$ 1,887.68 |
| 1.3 Present for Approval | | | | | | |
| Project Manager | \$ 3,600.00 | | | | | \$ 3,600.00 |
| Lead Game Designer | \$ 861.60 | | | | | \$ 861.60 |
| 1.4 Implementation of Project Resources and Agreements | | | | | | |
| Project Team | | | | | | |
| Project Manager | | \$18,000.00 | | | | \$ 18,000.00 |
| Senior Developer (.Net/Java) | | \$10,800.00 | | | | \$ 10,800.00 |
| Legal Advisor | | \$ 3,373.44 | | | | \$ 3,373.44 |
| Procurement Specialist | | \$ 1,887.68 | | | | \$ 1,887.68 |
| Hardware | | | | | | |
| PCs | | \$80,840.00 | | | | \$ 80,840.00 |
| Storage Server (AWS S3 Standard) | | \$ 276.00 | | | | \$ 276.00 |
| Testing Server - Reserved rate (AWS EC2 t3.medium - 2 vCPUs, 4 GB RAM) | | \$ 180.00 | | | | \$ 180.00 |
| Development Servers- Reserved rate (AWS EC2 t3.medium - 2 vCPUs, 4 GB RAM) | | \$ 504.00 | | | | \$ 504.00 |
| Software | | | | | | |
| Unity Pro Annual Package | | \$10,200.00 | | | | \$ 10,200.00 |
| Adobe Creative Cloud | | \$ 6,191.32 | | | | \$ 6,191.32 |
| Github Team (Version Control) | | \$ 44.00 | | | | \$ 44.00 |
| 3Ds Max Autodesk | | \$16,920.00 | | | | \$ 16,920.00 |
| Jira Premium Annual - 15 users (Project Management) | | \$ 2,400.00 | | | | \$ 2,400.00 |
| FMOD (Audio Middleware) | | \$ 6,000.00 | | | | \$ 6,000.00 |
| 2.0 Pre-production | | | | | | |
| 2.1 Finalize Game Design Document (GDD) | | | | | | |
| Project Manager | | \$ 9,000.00 | | | | \$ 9,000.00 |
| Lead Game Designer | | \$ 2,584.80 | | | | \$ 2,584.80 |
| Game Designers | | \$ 5,169.60 | | | | \$ 5,169.60 |
| Narrative Designer/Writer | | \$ 1,540.00 | | | | \$ 1,540.00 |
| 2.2 Complete Prototyping | | | | | | |
| Project Manager | | \$13,500.00 | | | | \$ 13,500.00 |
| Lead Game Designer | | \$ 4,308.00 | | | | \$ 4,308.00 |
| Game Designers | | \$ 2,154.00 | | | | \$ 2,154.00 |
| Senior Developer (.Net/Java) | | \$18,000.00 | | | | \$ 18,000.00 |
| Art Director | | \$ 492.32 | | | | \$ 492.32 |
| QA tester | | \$ 4,750.00 | | | | \$ 4,750.00 |
| Visual Studio | | \$ 1,911.00 | | | | \$ 1,911.00 |
| 2.3 Risk Management and Contingency Planning | | | | | | |
| Project Manager | | \$ 5,400.00 | | | | \$ 5,400.00 |
| Senior Developer (.Net/Java) | | \$ 2,700.00 | | | | \$ 2,700.00 |
| QA Manager | | \$ 5,700.00 | | | | \$ 5,700.00 |
| 3.0 Full Game Development and Production | | | | | | |
| 3.1 Expand the Game Design Document (GDD) | | | | | | |
| Project Manager | | | \$ 2,700.00 | | | \$ 2,700.00 |
| Lead Game Designer | | | \$ 5,169.60 | | | \$ 5,169.60 |
| Art Director | | | \$ 984.64 | | | \$ 984.64 |
| 3.2 Asset Creation | | | | | | |
| Project Manager | | | \$13,500.00 | | | \$ 13,500.00 |
| Art Director | | | \$ 7,384.80 | | | \$ 7,384.80 |
| 3D Artists | | | \$ 6,876.80 | | | \$ 6,876.80 |
| Animators | | | \$ 8,164.80 | | | \$ 8,164.80 |
| Audio Designer | | | \$ 2,500.00 | | | \$ 2,500.00 |

| | | | | | | |
|---|--|--|--|--------------|---------------|----------------------|
| 3.3 Code Development | | | | | | |
| Project Manager | | | | \$ 21,600.00 | | \$ 21,600.00 |
| Senior Developer (.Net/Java) | | | | \$ 21,600.00 | | \$ 21,600.00 |
| Full Stack Developers (.Net/Java) | | | | \$ 86,400.00 | | \$ 86,400.00 |
| UI/UX Designer | | | | \$ 3,500.00 | | \$ 3,500.00 |
| AI Specialist | | | | \$ 1,461.52 | | \$ 1,461.52 |
| Audio Designer | | | | \$ 500.00 | | \$ 500.00 |
| 3.4 Risk Management and Contingency Planning | | | | | | \$ - |
| Project Manager | | | | \$ 5,400.00 | | \$ 5,400.00 |
| Senior Developer (.Net/Java) | | | | \$ 2,700.00 | | \$ 2,700.00 |
| AI Specialist | | | | \$ 1,096.14 | | \$ 1,096.14 |
| QA Manager | | | | \$ 2,850.00 | | \$ 2,850.00 |
| 4.0 Testing and Quality Assurance | | | | | | |
| 4.1 Internal Testing | | | | | | |
| Project Manager | | | | \$ 900.00 | | \$ 900.00 |
| Senior Developer (.Net/Java) | | | | \$ 3,600.00 | | \$ 3,600.00 |
| QA Manager | | | | \$ 4,750.00 | | \$ 4,750.00 |
| AI Specialist | | | | \$ 1,096.14 | | \$ 1,096.14 |
| Test Analyst | | | | \$ 7,000.00 | | \$ 7,000.00 |
| Testing (10% of 4.1 Total) | | | | \$ 2,190.00 | | \$ 2,190.00 |
| 4.2 Alpha Testing | | | | | | |
| Project Manager | | | | | \$ 4,500.00 | \$ 4,500.00 |
| QA Manager | | | | | \$ 14,250.00 | \$ 14,250.00 |
| Senior Developer (.Net/Java) | | | | | \$ 4,500.00 | \$ 4,500.00 |
| Game Designer | | | | | \$ 861.60 | \$ 861.60 |
| Testing (10% of 4.2 Total) | | | | | \$ 2,411.16 | \$ 2,411.16 |
| 4.3 Beta Testing | | | | | | |
| Project Manager | | | | | \$ 8,100.00 | \$ 8,100.00 |
| Community Manager | | | | | \$ 8,853.12 | \$ 8,853.12 |
| Senior Developer (.Net/Java) | | | | | \$ 11,700.00 | \$ 11,700.00 |
| Game Designer | | | | | \$ 1,077.00 | \$ 1,077.00 |
| Performance Engineer | | | | | \$ 5,815.44 | \$ 5,815.44 |
| Testing (10% of 4.3 Total) | | | | | \$ 3,554.56 | \$ 3,554.56 |
| 4.4 Quality Assurance (QA) | | | | | | |
| QA Manager | | | | | \$ 9,975.00 | \$ 9,975.00 |
| Test Analyst | | | | | \$ 11,200.00 | \$ 11,200.00 |
| Senior Developer (.Net/Java) | | | | | \$ 5,400.00 | \$ 5,400.00 |
| Performance Engineer | | | | | \$ 9,692.40 | \$ 9,692.40 |
| Project Manager | | | | | \$ 9,450.00 | \$ 9,450.00 |
| Testing (10% of 4.4 Total) | | | | | \$ 4,571.74 | \$ 4,571.74 |
| 5.0 Pre-Launch Preparations | | | | | | |
| 5.1 Marketing and community engagement | | | | | | |
| Marketing Manager | | | | | \$ 7,550.72 | \$ 7,550.72 |
| Community Manager | | | | | \$ 6,148.00 | \$ 6,148.00 |
| Agency Fees | | | | | \$ 188,368.50 | \$ 188,368.50 |
| 5.2 Certification and Compliance | | | | | | |
| Project Manager | | | | | \$ 27,000.00 | \$ 27,000.00 |
| QA Manager | | | | | \$ 7,600.00 | \$ 7,600.00 |
| Senior Developer (.Net/Java) | | | | | \$ 15,300.00 | \$ 15,300.00 |
| Legal Advisor | | | | | \$ 2,891.52 | \$ 2,891.52 |
| 5.3 Final Risk Review | | | | | | |
| Project Manager | | | | | \$ 9,000.00 | \$ 9,000.00 |
| Senior Developer (.Net/Java) | | | | | \$ 4,500.00 | \$ 4,500.00 |
| QA Manager | | | | | \$ 4,750.00 | \$ 4,750.00 |
| 6.0 Launch and Sign-off | | | | | | |
| 6.1 Official Launch | | | | | | |
| Project Manager | | | | | \$ 9,000.00 | \$ 9,000.00 |
| Senior Developer (.Net/Java) | | | | | \$ 4,500.00 | \$ 4,500.00 |
| Community Manager | | | | | \$ 3,442.88 | \$ 3,442.88 |
| 6.2 Launch sign-off | | | | | | |
| Project Manager | | | | | \$ 13,500.00 | \$ 13,500.00 |
| Senior Developer (.Net/Java) | | | | | \$ 6,300.00 | \$ 6,300.00 |
| Community Manager | | | | | \$ 1,721.44 | \$ 1,721.44 |
| Data Analyst | | | | | \$ 2,275.00 | \$ 2,275.00 |
| QA Manager | | | | | \$ 4,750.00 | \$ 4,750.00 |
| Total | | | | | | \$ 941,842.48 |

Task 4.3 Assumptions

| Roles | Daily Rates | Hourly Rates |
|---|-------------|--------------|
| Narrative Designer (Glassdoor, 2023) | \$385 | \$48.13 |
| Art Director (Talent.com, 2024) | | \$61.54 |
| Recruitment Specialist (Talent.com, 2024) | | \$47.90 |
| Procurement Specialist (Talent.com, 2024) | | \$58.99 |
| Marketing Manager (Talent.com, 2024) | | \$58.99 |
| 3D Artist (Glassdoor, 2023) | \$343.84 | \$42.98 |
| Animator (Talent.com, 2024) | | \$51.03 |
| Sound Designer (Glassdoor, 2024) | \$250 | \$31.25 |
| Community Manager (Talent.com, 2024) | | \$61.48 |
| Legal Advisor (Talent.com, 2024) | | \$60.24 |
| Performance Engineer (Glassdoor, 2023) | \$484.62 | \$60.58 |
| AI Specialist (Glassdoor, 2024) | \$365.38 | \$45.67 |

Table 1: Daily and hourly salaries of roles in the project from external sources.

The wages for this project were determined using HAYS Technology (2024) data, along with external sources for roles that cannot be filled internally, such as the Recruitment Specialist, Game Designer, Procurement Specialist, and Marketing Manager. These wages were assumed based on the Melbourne and Australian market average, gathered from job search websites. Table 1 outlines the assumed daily and hourly salaries for each role involved in the project, assuming daily rates are calculated for 8 hours of work. For hardware and software procurement, cost estimates were derived from quotes provided by major vendors, considering the standard tools required for game development (See Exhibit 1). This includes high-performance PCs with advanced graphics cards (Centre Com, 2024), licenses for the Unity Engine, 3D asset creation software, version control systems, and cloud servers for development, testing and storage. Although the scope of the game is moderate, hardware needs are expected to evolve as the project progresses, especially during asset integration and code optimization phases. To account for these potential adjustments, a 20% contingency reserve has been included in the budget to cover unforeseen expenses such as system upgrades or additional licenses.

Cost Baseline table highlights the incurred monthly costs throughout the project. Notably, three high-cost periods stand out: the implementation of hardware and software tools during the concept phase, the full game development during the production phase, and marketing and community engagement during the pre-launch phase. These three phases contribute 13.39%, 11.47%, and 17.17% of the total project cost, respectively.

During the concept phase, most of the costs are allocated to hardware and software licenses. In the production phase, human resource costs dominate, as the bulk of spending is dedicated to development work, including coding, design, and asset creation. Finally, during the pre-launch phase, the majority of the costs are incurred from the external marketing agency responsible for promoting the game. To ensure the successful launch of the game for revenue generation, companies should allocate a marketing budget between 25-50% of the development costs (Game Marketing Genie, 2023). For this case, marketing cost is assumed to be 25%.

The cost assumptions in the Cost Model and Cost Baseline tables capture the critical aspects of the project and reflect the major tasks the project team will undertake. Including a contingency reserve ensures the project can adapt to any unexpected circumstances without derailing timelines or exceeding the budget.

DELIVERABLE 5: Project Risk Management

Task 5.1 Risk Register

| RISK ID | RANK | RISK DESCRIPTION | IMPACT DESCRIPTION | IMPACT LEVEL | PROBABILITY LEVEL | PRIORITY LEVEL | RISK RESPONSE | RISK OWNER |
|---------|------|---|---|--------------|-------------------|----------------|--|--------------------------------------|
| R01 | 1 | Due to the growing complexity of modern games, the project may face testing delays and missed bugs without adequate automated testing solutions in place. | Insufficient testing coverage could result in undetected bugs, leading to delays, increased costs, poor game quality, and post-launch issues. This can negatively affect the project timeline and reputation. | 5 | 4 | 20 | Mitigate: Invest in automated testing tools to improve efficiency, reduce manual errors, and ensure comprehensive coverage. Train the QA team on automated testing processes. | QA Manager, Technical Lead |
| R02 | 2 | The complexity of the game's production pipeline, including issues related to custom middleware, build times, and cross-platform support. | Delays in the project timeline, increased technical debt, or challenges in maintaining efficiency of development processes, potentially leading to disruptions in the development cycle. | 4 | 3 | 12 | Mitigate. Implement robust project management practices, regularly review and optimize the production pipeline, and ensure cross-platform support is tested and validated early. | Technical Lead |
| R03 | 3 | Increased efficiency with off-the-shelf (OTS) tools. | Reduces development time and costs, potentially leading to an earlier project completion, allowing additional content or features to be added before launch, enhancing market readiness. | 3 | 4 | 12 | Exploit. Leverage OTS tools where appropriate, ensuring they are fully integrated into the development pipeline to maximize efficiency and reduce custom tool development overhead. | Project Manager and Senior Developer |

Task 5.2 Probability & Impact Rationale

R01: The risk of testing issues is high due to the growing complexity of modern games, which require thorough testing across various platforms and scenarios. According to the 2023 Games Development Report by Rendered Venture Capital & Griffin Gaming Partners, 43% of QA teams are adopting or exploring automated testing to manage these complexities. Automated testing is vital for reducing manual testing time and ensuring comprehensive coverage (iXie, 2023). Without automation, your project risks increased costs and delays, as manual testing is time-consuming and prone to errors that can lead to undetected bugs (Cossidente, 2021). The impact and probability of this risk are rated at very high (5) and high (4), respectively.

R02: The complexity of game development pipelines poses a moderate risk for *Echoes of Seraphis*, especially with its extensive build processes and cross-platform support. Over 60% of game projects experience delays or technical issues due to pipeline inefficiencies (Rendered Venture Capital & Griffin Gaming Partners, 2023). The technological demands make this risk likely, potentially derailing timelines, increasing costs, and compromising the game's quality. In a competitive market, these setbacks could be damaging, and accumulated technical debt could lead to long-term maintenance challenges and reduce the project's profitability and scalability. The impact and probability of this risk are rated high (4) and moderate (3), respectively.

R03: The probability of this positive risk is high due to the industry's shift from custom-built tools to off-the-shelf (OTS) solutions. According to the 2023 Games Development Report, 65% of studios plan to increase their use of OTS tools over self-built ones, driven by the need to improve development efficiency, reduce costs, and accelerate time-to-market (Rendered Venture Capital & Griffin Gaming Partners, 2023). For this project, adopting OTS tools can reduce development time and costs, potentially allowing for earlier completion and the addition of extra features before launch. This also simplifies hiring, as developers are already familiar with industry-standard tools. The impact and probability of this risk are rated at moderate (3) and high (4), respectively.

Task 5.3 The Matrix & Analysis

| | | | | | | |
|--------------------|---------------|---|---|-----|-----|---|
| PROBABILITY | 5 | | | | R01 | |
| | 4 | | | R02 | | |
| | 3 | | | | R03 | |
| | 2 | | | | | |
| | 1 | | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| | IMPACT | | | | | |

| | | | | |
|------------------------|------------|-----------|-------------|----------------|
| RISK RATING KEY | LOW | MEDIUM | HIGH | EXTREME |
| | Acceptable | Tolerable | Undesirable | Not Acceptable |

R01 – Increased Testing Complexity (Risk Mitigation)

1. Quality Assurance (QA) Lead in collaboration with the Technical Lead and Lead Game Designer to reassess current testing strategies and identify areas where comprehensive testing is required due to the increased complexity of the game.
2. QA Lead to research, select, and implement automated testing tools with approval from project manager to efficiently cover a wide range of scenarios and platforms, reducing the reliance on manual testing and increasing testing speed and accuracy.
3. QA Lead to coordinate with the Project Manager and Development Team to establish regular testing phases during development to catch bugs early, preventing critical issues from surfacing close to launch and minimizing costly delays.
4. QA Lead in collaboration with the Project Manager and Legal Advisor, to identify and contract external testing resources or third-party QA services to ensure additional coverage and objective assessments of the game's quality.
5. (Contingency Plan): If significant bugs are found during late-stage testing, delay the release to ensure all critical issues are addressed, protecting the game's reputation and long-term success.

Expected time to take action to mitigate R02 is 15 working days. Contingency plan expected time to complete is 10 working days.

R02 – Complexity in Production Pipelines (Risk Mitigation)

1. Project Manager along with the Technical Lead, to organize a meeting with the project team to discuss potential complexities in the production pipeline, particularly focusing on the integration of build processes and cross-platform support.
2. Technical Lead and QA Lead to assess the current production pipeline and identify potential bottlenecks or inefficiencies that could lead to delays or technical debt.
3. Technical Lead to implement tools or processes that can streamline the production pipeline, such as automation tools or optimization practices for build processes.

4. Technical Lead along with the Project Manager, to conduct regular reviews of the pipeline during key project milestones to ensure that the integration of cross-platform support is proceeding as planned.
5. (Contingency Plan) If significant issues arise, initiate an immediate review of the pipeline, reallocate resources to critical areas, and consider scaling down features to maintain project timelines and quality.

Expected time to take action to mitigate R01 is 10 working days. Contingency plan expected time to complete is 7 working days.

R03 – Increased Efficiency Through OTS Tools (Opportunity Management)

1. Technical Lead in collaboration with Lead Game Designer, to review the current development processes and identify areas where OTS tools can replace custom tools to improve efficiency.
2. Procurement Specialist working closely with the Technical Lead and Project Manager, to procure necessary OTS tools and integrate them into the project pipeline, ensuring compatibility with existing systems and processes.
3. Technical Lead to train the team on the effective use of OTS tools, leveraging industry-standard practices to maximize the benefits of these tools.
4. Technical Lead with input from the Project Manager, to monitor the impact of OTS tools on development speed and cost, making adjustments as necessary to optimize performance.
5. (Opportunity Plan) If OTS tools prove highly effective, consider expanding their use to other areas of the project, potentially freeing up resources for additional content development.

Expected time to implement R03 opportunity is 10 working days. Opportunity plan expected time to expand OTS tools is 5 working days.

DELIVERABLE 6: Project Quality Management

Task 6.1 Quality Standards/Requirements

Quality Standard 1:

The game must achieve a minimum Net Promoter Score (NPS) of 40 from beta testers by the end of the testing phase, and an average star rating of 4.3 out of 5, as per industry benchmarks from the 2024 Centercode Industry Report.

Justification 1:

Achieving an NPS of 40 ensures a significant proportion of beta testers are likely to recommend the game, enhancing marketability and word-of-mouth promotion. According to the 2024 Centercode Industry Report, games with an NPS score in this range are more likely to perform well post-launch, correlating with higher player retention and satisfaction. Furthermore, the target star rating of 4.3 reflects a high level of user satisfaction and ensures the game is polished and ready for release. The upward trend in star ratings from 4.08 in 2020 to 4.30 in 2023 is largely attributed to increased rigor in testing and iterative improvements (Centercode, 2024). By aligning with these industry benchmarks, we can confidently anticipate strong post-launch performance, high user satisfaction, and overall market success.

Assumptions:

1. Beta testers will actively participate and represent a diverse cross-section of the target audience.
2. Rigorous testing will refine gameplay mechanics and user experience, boosting satisfaction.
3. Comprehensive testing will cover all game systems, addressing potential issues before launch.

Quality Standard 2:

The game's user interface (UI) must comply with ISO 9241-110:2020 standards, ensuring the design is ergonomic, usable, and accessible to a wide range of users.

Justification 2:

Adhering to ISO 9241-110:2020 ensures the UI design meets international standards for usability and accessibility, making the game more intuitive and inclusive for all users, including those with disabilities. The System Usability Scale (SUS) will be used to evaluate the interface, aiming for a score of 70 or higher. This will confirm the UI's compliance with key principles such as consistency, user control, and error management.

Additionally, meeting these standards will help prevent usability issues that could frustrate players or impede progress, particularly in an action-adventure game where clear navigation and efficient interactions are essential. By following these standards, the game is likely to attract a broader audience and enhance its marketability, especially to users who require accessible features.

Assumptions:

1. The UI will be tested by a diverse group, ensuring inclusive usability.
2. Accessibility features like adjustable text sizes and high contrast modes will be implemented.
3. User feedback will guide continuous improvements to maintain compliance.

Task 6.2 Metrics and Measurement

Metric 1: The game must achieve an average star rating of 4.3 or higher during beta testing, aligning with the typical star rating range of 4.11 to 4.56, as highlighted in the 2024 Centercode Industry Report. After each beta testing phase, players will be prompted to rate the game on a 5-star scale through an integrated feedback system. This process will allow for a clear assessment of the player experience. A minimum star rating of 4.3 will be considered acceptable, indicating that the game provides a polished and enjoyable experience, meeting player expectations and ensuring overall satisfaction.

Metric 2: The System Usability Scale (SUS) will be used to measure the usability of the game's user interface (UI) during beta testing and post-launch. A minimum SUS score of 70 will indicate acceptable usability, aligning with industry benchmarks for above-average usability (Trymata, n.d.). The SUS questionnaire will be administered to a diverse group of at least 50 beta testers, including individuals with accessibility needs. If the score falls below 70, follow-up interviews will be conducted to identify and address specific issues. This metric, combined with qualitative feedback, ensures that the UI complies with ISO 9241-110:2020 standards for usability and accessibility.

DELIVERABLE 7: Project Stakeholder and Communication Management

Task 7.1 Building Your Stakeholder Register

| NO | NAME | TITLE | ROLE IN PROJECT | CATEGORY | POWER LEVEL | INTEREST LEVEL | COMMS REQUIREMENTS | COMMS FREQUENCY | CONTACT |
|----|------------------|---|------------------------------|----------|-------------|----------------|---------------------------|-------------------|---|
| 1 | Bao Ngoc Truong | Project Manager | Project Manager | Internal | High | High | Email, Meetings | Daily | bao.truong@nexaforgestudios.com.au |
| 2 | Leila Al-Mansour | Head of Game Development, NexaForge Studios | Project Sponsor | External | High | High | In-person meetings, Email | Monthly/Bi-weekly | leila.almansour@nexaforgestudios.com.au |
| 3 | Aisha Khan | Lead Game Designer | Game Design Lead | Internal | High | High | Email, Daily Standups | Weekly | aisha.khan@nexaforgestudios.com.au |
| 4 | Priya Patel | Art Director | Art Director | Internal | High | High | Email, Meetings | Weekly | priya.patel@nexaforgestudios.com.au |
| 5 | Kwame Mensah | Marketing Manager | Marketing Lead | Internal | Medium | High | Email, Presentations | Weekly | kwame.mensah@nexaforgestudios.com.au |
| 6 | Maria Rodriguez | QA Manager | QA Lead | Internal | Medium | High | Email, Bug Tracking | Daily | maria.rodriguez@nexaforgestudios.com.au |
| 7 | Hiroshi Tanaka | Senior Developer | Technical Lead | Internal | High | Medium | Email, Meetings | Bi-weekly | hiroshi.tanaka@nexaforgestudios.com.au |
| 8 | Lara Thompson | Community Manager | Player Engagement Lead | Internal | Medium | High | Email, Social Media | Daily | lara.thompson@nexaforgestudios.com.au |
| 9 | Michael Carter | Audio Designer | Audio Lead | Internal | Low | High | Email, Meetings | Weekly | michael.carter@nexaforgestudios.com.au |
| 10 | Sophia Delgado | UI/UX Designer | UI/UX Lead | Internal | Medium | High | Email, Design Reviews | Weekly | sophia.delgado@nexaforgestudios.com.au |
| 11 | David Chen | Legal Advisor | Legal Advisor | Internal | High | Low | Email, Reports | Bi-weekly | david.chen@nexaforgestudios.com.au |
| 12 | Alan Rivera | Account Manager of Marketing Agency | External Marketing Partner | External | High | High | Email, Reports, Meetings | Bi-weekly | alan.rivera@nexaforgestudios.com.au |
| 13 | Elena Novak | Platform Compliance Specialist | Certification and Compliance | External | High | High | Email, Reports, Calls | Weekly | elena.novak@nexaforgestudios.com.au |
| 14 | Jake Miller | Key Game Community Influencer | Community Engagement Partner | External | Low | High | Email, Social Media | Daily | jake.miller@nexaforgestudios.com.au |

Task 7.2 Engagement Strategy

| Name | Level of Interest | Level of Influence | Potential Management Strategies |
|-------------|-------------------|--------------------|--|
| Alan Rivera | High | High | Alan, the Account Manager from the marketing agency, is laid-back and approachable, favoring informal communication styles like quick calls or casual meetings over lengthy reports. They value creativity and are open to brainstorming sessions, often encouraging out-of-the-box ideas to boost the campaign's impact. Building a rapport with Jordan involves flexibility and open dialogue, as they enjoy discussing new strategies and trends in a relaxed setting. They prefer a collaborative atmosphere but need gentle reminders to keep tasks on track. Regular, informal check-ins and a monthly creative review meeting would help ensure the marketing goals are consistently aligned with NexaForge's vision. |
| Elena Novak | High | High | Elena, the Platform Compliance Specialist, is meticulous and highly organized, ensuring that every aspect of the game complies with platform requirements and regulations. They prefer clear, structured communication through regular emails and detailed reports, appreciating transparency and precision. Alex tends to focus on potential compliance risks, so it's essential to keep them informed of progress and any emerging issues. They are proactive in resolving concerns but expect timely responses and updates. Engage them with concise weekly reports and notify them immediately of any platform changes or new regulations. Monthly check-ins via phone or video calls can address complex issues. |

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Exhibits

Exhibit 1: Cost of hardware options

| Hardware device costs | | | |
|-----------------------|--|--------------------------------------|--------------------|
| Option | Equipment | Feature | Price |
| Option 1 | Intel Core i9 - 12900ks | 24 threads, 16 Cores | \$ 499.00 |
| | Gigabyte Z790 Eagle AX LGA1700 ATX Desktop Motherboard | LGA1700, Smart Fan 6, Wi-Fi 6E | \$ 339.00 |
| | MICROSOFT WINDOWS 11 HOME OEM - DVD 64-bit | Windows 11, 64 bit | \$ 179.00 |
| | G.Skill Trident Z5 RGB 48GB (2 x 24GB) DDR5 7200MHz CL36 RAM - Black | RGB 48GB, 7200MHz CL36 RAM | \$ 349.00 |
| | Kingston SKC3000D/2048G KC3000 2TB PCIe 4.0 NVMe M.2 SSD | 2TB storage space | \$ 249.00 |
| | PNY GeForce RTX 4080 Super Verto 16GB OC Edition GDDR6X Triple Fan Graphics Card | RTX 4080 SUPER, 16GB, GDDR6X | \$ 1,599.00 |
| | Thermalright Aqua Elite 360 V2 AIO Liquid CPU Cooler - Black | ARGB, 2600RPM, Intel/AMD | \$ 139.00 |
| | Deepcool CH560 Black E-ATX Case | Tempered Glass, Pre-Installed Fans | \$ 149.00 |
| | Corsair RM850e ATX 3.0 850W 80 PLUS GOLD Fully Modular Power Supply | 850 Watt | \$ 172.00 |
| | MSI MAG 275QF 27" WQHD Rapid IPS 180Hz 0.5ms Adaptive-Sync Gaming Monitor | 180Hz, 27 inch, AI vision technology | \$ 269.00 |
| | Fantech GO WK894 Wireless Office Keyboard and Mouse Combo | Wireless, Anti-Splash, Full Size KB | \$ 25.00 |
| | Total | | \$ 3,968.00 |
| Option 2 | AMD Ryzen 9 7900x 12 Cores 24 Threads 5.6Hz Processor | 24 threads, 12 cores | \$ 597.00 |
| | Thermalright Frozen Warframe 360 Black Argb AIO Liquid Cooler - Black | 360mm, IPS LCD Resolution, AMD/Intel | \$ 179.00 |
| | ASRock X670E PG Lightning AM5 DDR5 ATX Motherboard | AM5, 4xDDR5, Realtek 2.5G LAN | \$ 369.00 |
| | G.Skill Trident Z5 RGB 64GB (2x32GB) 6000MHz C30 DDR5 Desktop RAM - Black | 64GB(2x32GB), DDR5, 6000MHz | \$ 359.00 |
| | Kingston KC3000 2TB PCIe 4.0 NVMe M.2 SSD | 2TB, 7000MB/s Read, 7000MB/s Write | \$ 249.00 |
| | PNY GeForce RTX 4080 Super 16GB VERTO Overclocked Triple Fan DLSS 3 GDDR6X Graphics Card | RTX 4080 SUPER, 16GB, GDDR6X | \$ 1,599.00 |
| | MSI MAG Forge 320R AIRFLOW Mid-Tower Case | Tempered Glass, ARGB Fans LED Switch | \$ 99.00 |
| | Corsair RM850x SHIFT 850W 80+Gold Full Modular ATX Power Supply | 850W, 80+Gold, Full Modular | \$ 192.00 |
| | Microsoft Windows 11 Home - OEM DVD 64-bit English (1 Pack) | Windows 11, 1 Pack, 64-bit | \$ 179.00 |
| | MSI MAG 275QF 27" WQHD Rapid IPS 180Hz 0.5ms Adaptive-Sync Gaming Monitor | 180Hz 0.5ms Adaptive-Sync | \$ 269.00 |
| | Fantech GO WK894 Wireless Office Keyboard and Mouse Combo | Wireless, Anti-Splash, Full Size KB | \$ 25.00 |
| | Total | | \$ 4,116.00 |