FIT5057 Project Management

Assignment Two – Team Assignment Individual Submission

Cipher Protocol Shadow Nexus - Cyberpunk Action Stealth Game Project Management Execution

MONTH 2024 September 30

Student ID and Full Name:33429472 Ziqi Pei

Team number:603

Applied class:Applied Friday 5-7pm

# 

# FIT5057 Assignment 2 Writing Guide and template

**Before submission, remove all guides, comments, and unnecessary instructions to ensure the final document is clean, professional, and ready for presentation.**

|  |
| --- |
| This guide aims to support your success in Assignment 2 by providing guidance on each deliverable within your project management plan. Remember, this is a starting point – your own exploration of project management concepts and tools will further enhance the quality of your submission.  **Important Reminders:**   * Don't leave this for the last minute! * Prepare for change and updates, that is normal and expected. * Ensure all deliverables (scope, WBS, Gantt chart, cost baseline) are consistent. Inconsistencies can undermine the project plan. * All templates are provided. You SHOULD adapt it to your project's unique needs. * Conceptual Understanding: Demonstrate a thorough understanding of the core project management principles covered in your coursework. These concepts serve as the foundation for each task within the assignment. * Justification: Clearly explain your reasoning behind choices, tools, or methods selected. Successful project plans demonstrate not only the 'what' but also the 'why' behind plans. * Professionalism in Writing: Use clear, organised, and error-free language throughout your plan. Present your ideas with the same level of care you would offer a client. * Visual Clarity: Charts, tables, or diagrams can often communicate complex information or relationships more effectively than text alone. * Accurate Referencing: Employ your designated referencing style (APA 7) correctly and consistently to acknowledge your sources. Refer to [Monash Library guidelines](https://guides.lib.monash.edu/apa-7). * This document includes guides to develop your assignment tasks (presented in boxes) and templates to use. Remove the guides after completing the tasks and before submitting, to avoid unnecessary indication of high similarity in Moodle! |

Include a table of contents with updated page numbers when you have completed the report

# 

# Contents

DELIVERABLE 1: Project Integration Management

Task 1 Project Charter

DELIVERABLE 2: Project Scope Management

Task 2.1 Requirements Traceability Matrix (RTM)

Task 2.2 Project Scope Statement

DELIVERABLE 3: Project Work Breakdown structure and Project Schedule Management

Task 3.1 Work Breakdown Structure (WBS) - Individual Written Submission

Task 3.2 Short reflection on developing the WBS through team collaboration - Individual Written Submission

Task 3.3 Gantt Chart - Individual Written Submission

Task 3.4 In-class Demonstration

DELIVERABLE 4: Project Cost Management

Task 4.1 One-page Cost Model

Task 4.2 Cost Baseline

Task 4.3 Summary of Assumptions

DELIVERABLE 5: Project Risk Management

Task 5.1 Risk Register

Task 5.2 Probability & Impact Rationale

Task 5.3 The Matrix & Analysis

DELIVERABLE 6: Project Quality Management

Task 6.1 Quality Standards/Requirements

Task 6.2 Metrics and Measurement

DELIVERABLE 8: Project Stakeholder and Communication Management

Task 7.1 Building Your Stakeholder Register

Task 7.2 Engagement Strategy

References

GENERATIVE AI - Acknowledgement of use

# DELIVERABLE 1: Project Integration Management

## Task 1 Project Charter

Reflect on the alignment between your project's objectives and the client's business strategy. How does your project charter demonstrate an understanding of this alignment?

A strong charter covers all elements in the template, clearly showing how they connect to deliver the project's value.

Your charter is an important communication tool. Ensure it is well-formatted, easy to navigate

Define success in clear, measurable terms. For example, instead of "improve efficiency," aim to "reduce processing time by 20% by target date."

Briefly outline potential risks facing the project and initial strategies for addressing these challenges.

Add KEY stakeholders in the roles and responsibilities section, including at least 6 key stakeholders.

Signatures: Assume that Stakeholders can sign by typing their names below the table.

**Project Title**:Cipher Protocol:Shadow Nexus

**Project Start Date:**February 1 st,2025 **Projected Finish Date:** January 31st,2026

**Budget Information:** $1,200,000

**Project Manager:** Ziqi Pei,

Phone:0458133985

E-mail:zpei0003@student.monash.edu

**Project Objectives:**

Cipher Protocol is an ambitious cyberpunk stealth action game that places players in a dystopian metropolis ruled by giant corporations. As a highly skilled rogue hacker, players need to use their wits and skills to infiltrate high-security facilities, manipulate complex surveillance systems, and uncover the dark secrets hidden beneath the surface of the city. The core feature of the game lies in its dynamic level design, which supports a variety of vertical exploration elements. Players can climb the facades of skyscrapers, sneak through intricate maintenance tunnels, and even hack into and control security drones to complete missions. Another highlight of Cipher Protocol is its in-depth moral choice system. Every decision made by the player will have an impact on the balance of power in the city, whether it is strengthening the rule of corporate overlords, supporting the rise of rebellious factions, or pushing society towards anarchy, it will change the face of the game world.

Alignment of the project with business strategy:

As a cyberpunk stealth action game, Cipher Protocol perfectly fits NexaForge Studios' strategic goals. The game will bring the following advantages to the company:

1. Entering new markets: Cyberpunk themes are popular in the gaming community and will help attract new users.

2. Innovative gameplay: Dynamic level design and diverse gameplay will improve player retention.

3. Potential long-tail effect: The complex moral choice system will encourage players to play multiple times and extend the life of the game.

Cipher Protocol uses a number of cutting-edge game technologies to realize its ambitious

design concept. First, the game uses a self-developed dynamic level generation system that can adjust the game environment in real time based on the player's choices and actions, ensuring that each gaming experience is unique. Secondly, we developed highly interactive environmental simulation technology so that every element in the game world can respond to the player's actions, providing a realistic and immersive gaming experience. The game also uses a complex AI behavior tree system, which enables NPCs to make intelligent and meaningful responses based on the player's actions. Finally, we use the latest graphics rendering technology to create a stunning cyberpunk visual style, bringing this dystopian world to life in front of players.

**Alignment with Client's Business Strategy:**  
Cipher Protocol: Shadow Nexus aligns with our client's strategy to establish a dominant presence in the immersive cyberpunk gaming market. By delivering a cutting-edge gaming experience, optimizing development processes, and enhancing player engagement, the project supports the client's goals of innovation, market leadership, and increased profitability.

**Deliver a Seamless and Immersive Gameplay Experience**

**Objective:** Provide players with a dynamic cyberpunk environment where decisions shape the storyline.

* **Measurable Target:** Achieve a 70% improvement in gameplay fluidity by enhancing game engine efficiency, ensuring a minimum of 60 FPS across all platforms by November 30th, 2025.
* **Impact:** Enhance player satisfaction and immersion, leading to a 20% increase in positive feedback related to gameplay experience.

**Optimize Game Development through AI Integration**

**Objective:** Reduce manual workload in NPC behaviors and level designs.

* **Measurable Target:** Decrease development time by 60% by integrating adaptive AI and procedural level generation, allowing for faster content updates by October 31st, 2025.
* **Impact:** Improve development efficiency, enabling quicker releases and keeping players engaged with new content.

· **Boost Player Retention through Enhanced Replayability**

· **Objective:** Encourage multiple playthroughs with branching narratives and moral decision-making.

* **Measurable Target:** Increase player retention by 50% within six months post-launch, with at least 30% of players completing multiple story arcs by July 31st, 2026.

**Impact:** Sustain long-term player engagement and foster a loyal community, reducing player churn by 25% in the first month.

**Main Project Success Criteria:**

The core advantages of Cipher Protocol are mainly reflected in four aspects. First, the game builds a unique and fascinating cyberpunk world view, which deeply attracts players through a carefully designed storyline. Second, the game innovatively combines hacker elements with traditional stealth action gameplay, providing players with an unprecedented gaming experience. Third, the highly replayable dynamic level design ensures the long-term appeal of the game, and players can discover new challenges and surprises every time they play. Finally, the player's choice in the game will have a substantial impact on the game world. This deep interactivity and consequential game design will greatly enhance the player's sense of participation and immersion. These advantages together constitute the core competitiveness of Cipher Protocol that distinguishes it from other games. With the advancement of technology and the increasing demand of players for a deeper gaming experience, the market for cyberpunk-themed games is growing rapidly. Cipher Protocol will fill a gap in NexaForge Studios' product line, providing the company with an opportunity to enter this lucrative market.Its adaptive artificial intelligence system provides a challenging environment that makes each playthrough unique. The game's dynamic level design allows for both vertical and horizontal exploration, giving players multiple ways to complete each mission. This versatility and depth of gameplay is a key factor that distinguishes it from other games in the genre.

### 1. **Performance Optimization:**

**Target:** Ensure Cipher Protocol: Shadow Nexus runs at a minimum of **60 FPS** across all targeted platforms (PC, PS5, Xbox Series X).  
**Goal:**

* Reduce lag and load times by at least 50% compared to initial prototypes by September 30th, 2025.
* Achieve frame rates above **60 FPS** for **95%** of gameplay, even during intense combat scenes or high-action sequences.  
  **Impact:** **Impact:** Enhance player immersion and satisfaction, leading to a 20% increase in positive performance feedback.

### **2.Player Engagement Metrics:**

**Target:** Achieve a **40% completion rate** among players within the first two months post-launch.  
**Goal:**

* Maintain high player retention through engaging narratives, dynamic choices, and frequent content updates.
* **50% of players** to participate in community events and DLC content within the first six months of launch.
* **Impact:** This should lead to a **25% decrease** in player churn during the first month, and sustain engagement through community events with a target of **30% monthly active users** post-launch.

### 3. **Critical Acclaim and Awards:**

**Target:** Achieve a **Metacritic score of 85+** within the first year post-launch.  
**Goal:**

* Secure at least three nominations from major gaming awards (e.g., The Game Awards, D.I.C.E., BAFTA).
* Sell 1 million units within the first year, leveraging critical acclaim to boost sales.  
  **Impact:** Establish Cipher Protocol: Shadow Nexus as a top-tier game within the cyberpunk and stealth genres, resulting in a **20% increase** in brand recognition and credibility for future projects.

**Project development approach:**

Market and Marketing

Cipher Protocol's target market is mainly the hardcore gamer group on console and PC platforms. In recent years, with the popularity of cyberpunk themes in popular culture, the market demand for related games has continued to grow. Our marketing strategy will make full use of this trend and attract target audiences through multi-channel promotion. Specifically, we will focus on social media marketing and use platforms such as Facebook, Twitter, and Instagram to directly interact with potential players. At the same time, we plan to participate in important game exhibitions such as E3 and Gamescom to show the unique charm of the game through real-machine demonstrations. In addition, we will also cooperate with well-known game anchors and influencers to expand the exposure of the game through their platforms.

Target Market Cipher Protocol's target

Market consists of gamers who appreciate deep narratives and complex gameplay. This demographic is typically aged 18-35, is tech-savvy, and enjoys immersive single-player experiences. The game also appeals to fans of the cyberpunk genre and players who enjoy stealth mechanics. The marketing strategy focuses on reaching the audience through social media campaigns, collaborations with gaming influencers, and showing the game at major gaming conferences and online platforms.

Market Demand The demand for high-quality, narrative-driven games is on the rise, particularly within the cyberpunk genre, which has seen a resurgence in popularity. Cipher Protocol addresses this demand by offering a fresh take on the genre with its unique gameplay mechanics and storytelling approach. Assignment1 6 The game's potential market includes millions of gamers worldwide, with initial projections indicating strong interest and high pre-order numbers based on early marketing efforts and community feedback

·**Hybrid Approach**

The Cipher Protocol: Shadow Nexus project consists of four major components: game engine optimization, AI behavior scripting, dynamic level design, and narrative branching system. The **AI behavior scripting** development is expected to involve the highest complexity due to the need to simulate intelligent NPC responses and decision-making within a diverse and evolving environment. The **dynamic level design** is also relatively complex, requiring real-time environmental changes based on player choices, impacting the narrative and gameplay directly.

However, the expected output can be well defined, and similar systems have been implemented successfully in other games (Schwaber, 2013). This indicates that it is possible to predict the workload and resources required. Given this structured scenario, a **predictive approach** is suitable for the key technical components of the project. This method allows us to ensure a fixed budget, strict deadlines, and a high standard of performance.

In addition, certain gameplay aspects such as **cinematic sequences, character models, and narrative scripts** follow a **Waterfall approach** (Royce, 1970), given their linear and well-defined nature. This allows for sequential development, ensuring that each stage of production aligns with the creative vision of the project.

For areas requiring more flexibility, such as **gameplay mechanics** and **level design**, an **Agile methodology** will be employed. Agile facilitates adaptive planning and continuous feature delivery, allowing the team to respond to feedback from playtesting and make necessary improvements in iterative cycles (Schwaber, 2013). Regular sprints ensure that gameplay and user experience are continuously refined during the development process.

Given the high cybersecurity risks associated with game development, particularly regarding game data integrity and player privacy, this project will prioritize rigorous planning, fixed budgets, and strict adherence to the timeline (Boehm, 1988). Moreover, Continuous Integration (CI) practices and automated testing will ensure game stability and cross-platform performance, which is crucial for meeting the game's performance benchmarks (Beck et al., 2001).

Marketing Strategy The marketing strategy for Cipher Protocol involves a multi-channel approach, including social media campaigns, influencer partnerships, and participation in major gaming events. Pre-launch activities will focus on building anticipation through teaser trailers, developer diaries, and interactive content that allows potential players to engage with the game's world and mechanics. Post-launch, the strategy will shift to maintaining engagement through regular content updates, community events, and feedback-driven improvements

Company Strategy

Time Estimate:

The project is expected to take 18 months to complete and is scheduled to be released in the first quarter of 2026. Major milestones include:

1. Prototype development (3 months)

2. Core gameplay completion (8 months)

3. Content production and polish (7 months)

Our company strategy is divided into three phases: short-term, medium-term and long-term. The short-term goal is to concentrate all company resources to ensure the high-quality development and successful release of "Cipher Protocol". We will strictly control the development progress, while actively communicating with publishers and platform parties to pave the way for the smooth launch of the game. The medium-term strategy focuses on developing DLC ​​content, extending the life cycle of the game through regular updates and expansion packs, and maintaining the activeness of the player community. We plan to launch at least two large story DLCs to further deepen the game world and gameplay. In the long term, our goal is to build Cipher Protocol into a successful game IP. This includes developing sequels, derivative works, and even expanding the IP to other media forms, such as novels, comics, or animation series.The company aims to establish Cipher Protocol as a benchmark in the cyberpunk genre. The strategy includes delivering high-quality content, continuous updates post-launch, and building a strong community around the Assignment1 7 game. Long-term plans involve expanding the game universe through downloadable content, sequels, and possible multimedia adaptations, including comics and animated series. This approach ensures sustained interest and engagement from the player base

Financing and Finance According to our budget estimates, the development cost of Cipher Protocol's DLC is expected to be AUD 1.2 million. This includes team salaries, software licensing fees, marketing budgets and other expenses. Considering the game's innovation and market potential, we expect to achieve sales of 1 million copies in the first year. Based on the industry average pricing and revenue sharing model, we estimate that we can recover all development costs within 18 months. In the long term, with the launch of DLC content and possible cross-platform releases, we expect the game to bring a stable cash flow to the company. We are also actively seeking venture capital to ensure sufficient funds during the development process and accumulate capital for future projects.

**Roles and Responsibilities**

The development of Cipher Protocol is led by an experienced team. Our Creative Director has over 10 years of experience in AAA game development and has been involved in the production of several well-known IPs. The Technical Director has a strong professional background in open world game development and can ensure that our technical implementation matches the creative vision. The Art Director is well-known in the industry for his unique cyberpunk style design, which will bring visual shocks to the game. In addition, we have also hired senior game planners, AI programmers and sound designers to form an all-round elite team. This team is not only technically proficient, but more importantly, they share a common love for the cyberpunk theme, which will ensure that Cipher Protocol will become a passionate and creative work.

The management team consists of industry veterans with extensive experience in game development, marketing, and business management. The team’s expertise ensures that Cipher Protocol meets the high standards expected by the gaming community and achieves commercial success. Key members include chief developers, creative directors, marketing strategists, and financial advisors, all of whom bring valuable insights and skills to the project.

|  |  |  |  |
| --- | --- | --- | --- |
| **Role in the project** | **Name** | **Position in the organisation/contract** | **Contact Information** |
| **Project Manager** | **Ziqi Pei** | Oversees project execution | zpei0003@student.monash.edu |
| **Creative Director** | **Xiaoyao Li** | Leads vision, plot design, and gameplay design | xli0001@student.monash.edu |
| **Technical Director** | **James Chen** | Heads game engine development and technical support | jchen0002@student.monash.edu |
| **Art Director** | **Emily Wong** | Manages visual style, character design, and environment design | ewong0003@student.monash.edu |
| **Audio Director** | **Alex Smith** | Oversees game music, sound effects, and dubbing | asmith0004@student.monash.edu |
| **Audio Director** | **Alex Smith** | Oversees game music, sound effects, and dubbing | asmith0004@student.monash.edu |
| **Producer** | **Producer** | Responsible for resource allocation and progress control | xliu0005@student.monash.edu |
| **QA Manager** | **YuCheng Shi** | Leads game testing and quality control | yshi0006@student.monash.edu |
| **Marketing Manager** | **Sarah Johnson** | Manages promotional strategies and marketing campaigns | sjohnson0007@student.monash.edu |

**Sign-off:**By signing below, we acknowledge and agree to the terms outlined in this Project Charter.

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Confirm** | **Date** | **Signature** |
| Ziqi Pei | Confirm | February 1st, 2025 | Ziqi Pei |
| Xiaoyao Li | Confirm | February 1st, 2025 | Xiaoyao Li |
| James Chen | Confirm | February 1st, 2025 | James Chen |
| Emily Wong | Confirm | February 1st, 2025 | Emily Wong |
| Alex Smith | Confirm | February 1st, 2025 | Alex Smith |
| Xiaofan Liu | Confirm | February 1st, 2025 | Xiaofan Liu |
| YuCheng Shi | Confirm | February 1st, 2025 | YuCheng Shi |
| Sarah Johnson | Confirm | February 1st, 2025 | Sarah Johnso |

**Note:** This Project Charter serves as a comprehensive guide, demonstrating the alignment between our project's objectives and the client's business strategy. It outlines clear, measurable success criteria, addresses potential risks with mitigation strategies, and includes key stakeholders to ensure effective communication and project execution.

**Comments:**

We have reviewed the terms of the stakeholder Roles and Responsibilities and agree to abide by the guidelines. We understand that these roles and responsibilities will be reviewed quarterly or as necessary. We commit to actively participating in discussions regarding any changes or updates. Any amendments will be collectively discussed and approved by the entire team.

# DELIVERABLE 2: Project Scope Management

## Task 2.1 Requirements Traceability Matrix (RTM)

How does your RTM ensure that every requirement directly contributes to the project's objectives? Here are a few hints:

Mapping Relationships: Develop a table or spreadsheet to illustrate how the project's requirements link to specific deliverables or design elements.

You could go beyond merely listing requirements. Group or categorise requirements to emphasise dependencies or highlight those critical to project success.

Requirements: This section should include a description of the requirement identified. Be sure to include both functional requirements (what the project, system or product must DO) and non-functional requirements (qualities it must HAVE, such as performance, reliability).

Assumption(s) and/or Customer Need(s): This column should include a description of any assumption or customer needs linked to the requirement.

Category: This column specifies whether the identified requirement is a functional requirement, service requirement, performance requirement, quality requirement or training requirement.

Source: This column specifies the source of the requirement. It could be the source document or person/department initiating it.

Status: This column should include the current status of the requirement - can also include expected date of completion.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **REQUIREMENTS TRACEABILITY MATRIX** | | | | | |
| **Project Name:** | Cipher Protocol: Shadow Nexus | | | | |
| **Project Manager Name:** | Ziqi Pei | | | | |
| **Project Description:** | Product Development Background  The development of Cipher Protocol stems from our in-depth observation and analysis of the current game market. In recent years, with the launch of works such as Cyberpunk 2077, the demand for cyberpunk-themed games has increased significantly. However, we have noticed that players not only desire a high-quality visual experience, but also expect innovation in gameplay.  Especially in stealth action games, players seek a deeper connection between game mechanics and the cyberpunk world concept. Cipher Protocol was born out of this market demand. Our goal is to fill this gap and offer players a game that satisfies their pursuit of cyberpunk aesthetics, while also delivering in-depth and innovative gameplay. By integrating hacker elements, dynamic level design, and multi-layered narrative options, we aim to create an unprecedented gaming experience.  Cipher Protocol draws inspiration from successful games such as Deus Ex: Human Revolution, which is known for its complex level design, stealth mechanics, and player choice-driven narrative. Our game enhances the cyberpunk theme with realistic hacking mechanics and futuristic technology, providing players with an immersive and engaging experience. The development process involved extensive research into cybersecurity and city architecture to create a believable and compelling game world.  Core Products and Features  Cipher Protocol is a cyberpunk stealth action game set in a dystopian metropolis ruled by big corporations. As a rogue hacker, players are tasked with infiltrating security facilities, manipulating surveillance systems, and uncovering dark secrets. The key features of the game include:  1.Dynamic Level Design: Supports vertical exploration and multiple stealth routes.  2.Complex Moral Choice System: Player decisions impact the plot and world state.  3.Hacker Skill Tree and Upgradeable Equipment: Unlock advanced skills and equipment to enhance gameplay.  Multiple Endings: The branching narrative leads to different outcomes based on player choices.  The core features of Cipher Protocol are reflected in several key aspects:  1.Open Level Design: Each mission supports multiple stealth routes and completion strategies. Players can choose from various approaches, such as frontal assault, covert stealth, or remote hacking, significantly improving the game's replayability.  2.Innovative Hacker Ability Tree System: As players progress, they unlock a variety of advanced hacker skills that not only aid in completing missions but also introduce new gameplay possibilities.  3.Branching Narrative Structure: Player decisions directly influence the plot's direction and the state of the game world, creating a high degree of interactivity. Players feel fully immersed in this world of conspiracy and power struggles.  4.Immersive Cyberpunk World: The game features meticulously designed details and interactive elements, allowing players to experience the atmosphere of a dystopian future fully.  Cipher Protocol's core product includes not only the game itself but also a suite of proprietary technologies that support its unique mechanics. These technologies are protected by patents, ensuring that the game's innovative features remain exclusive. Key components include:  1.A real-time rendering engine  2.An adaptive artificial intelligence system  3.A sophisticated hacker simulator  These elements work together to create a seamless and immersive gaming experience that sets Cipher Protocol apart from other games in the genre. | | | | |
| ***ID*** | ***Requirements (Functional or Non-Functional)*** | ***Assumption(s) and/or Customer Need(s)*** | ***Category*** | ***Source*** | **Status** |
| R01 | Player should be able to choose between stealth and combat options. | Players prefer multiple approaches to complete missions. | Functional | Game Design Document | In Progress |
| R02 | AI NPC behavior should adapt to player choices dynamically. | Players want a challenging and responsive AI system. | Functional | Stakeholder Meeting | Pending |
| R03 | Game should run at 60 FPS across all platforms. | Ensuring a smooth experience on mainstream devices. | Non-Functional | Non-Functional | In Progress |
| R04 | Levels should change dynamically based on player actions. | Enhances immersion and replayability. | Functional | Game Design Document | In Progress |
| R05 | Data encryption for player information and save files. | Ensuring player data privacy and security. | Non-Functional | Security Requirements | Not Started |
| R06 | Integration of in-game audio with dynamic level changes. | Synchronizing audio cues with game actions for a more immersive experience. | Functional | Audio Design Document | Pending |
| R07 | Ensure cross-platform compatibility with minimal loading times. | Players expect consistent gameplay across platforms. | Non-Functional | Technical Specification | In Progress |
| R08 | Provide regular downloadable content (DLC) updates. | Sustaining player engagement and long-term retention. | Functional | Marketing Plan | Not Started |
| R09 | Implement a complex moral choice system that impacts story progression | Players want their choices to have a significant impact on the game world | Functional Requirement | Player Feedback | Player Feedback |
| R10 | Develop a hacking skill tree and upgradeable equipment system | Provide deep character customization and growth experience | Functional Requirement | Game Design Document | Game Design Document |
| R11 | The game should support multiplayer mode with cooperative or competitive play | Expand game replayability and social interaction | Functional Requirement | Market Demand Analysis | Market Demand Analysis |
| R12 | Ensure server stability under high load conditions | Prevent server crashes and provide a seamless multiplayer experience | Non-Functional Requirement | Technical Specification | Technical Specification |
| R13 | Implement dynamic weather and day/night cycle system | Enhance realism and visual appeal | Functional Requirement | Art Design Document | Art Design Document |
| R14 | Provide a detailed tutorial and help system | Ensure players can quickly learn the game | Service Requirement | Customer Support Department | Customer Support Department |
| R15 | Ensure the game complies with regional laws and ethical standards | Avoid legal risks and ensure global release | Non-Functional Requirement | Legal Consultant | Legal Consultant |

## Task 2.2 Project Scope Statement

Briefly explain the problem or opportunity the project addresses and how it aligns with the business objectives of your client. Every project document needs some introduction and background.

Functional requirements (or business requirements) are capabilities that the product must do to satisfy specific stakeholder needs and/or expectations. They describe capabilities that the intended product can perform to enable business users to do their work and carry on with their business (operational) work.

Non-functional requirements are qualities that the product must have, including usability, performance, reliability and security requirements. Technical requirements also fall under the non-functional category.

Deliverable: Provide descriptions of each deliverable, outlining critical requirements and characteristics, and any relevant quality requirement/expectation. Example: the new software system, training module, user manuals, etc

Include the most significant requirements/characteristics of each deliverable

Optional: Out-of-Scope: Explicitly state what the project will NOT address. This is just as important for managing expectations!

|  |  |
| --- | --- |
| **PROJECT** | **DATE** |
| Cyberpunk Action Stealth Game Project Management Execution | February 1st 2025 |
| **PROJECT BACKGROUND, OBJECTIVES and OUTCOMES** | |
| Based on our market analysis and industry experience, we are optimistic about the market prospects of Cipher Protocol. Considering the game's innovation, target platforms and market demand, we expect the cumulative sales of Cipher Protocol to reach 3-5 million copies on global consoles and PC platforms. This forecast is based on the following factors: First, the cyberpunk theme is currently in the hot market, and related works are generally popular with players. Second, our game combines a variety of popular elements such as stealth, hacker and RPG, which will attract different types of player groups. Third, we plan to release it on mainstream gaming platforms such as Steam, PlayStation and Xbox, which will ensure that the game can reach the widest audience. Finally, we have developed a comprehensive follow-up support plan, including DLC ​​content and multi-platform porting, which will help maintain the long-term sales of the game. Of course, actual sales will be affected by many factors, such as release timing, market competition, and word of mouth. We will pay close attention to these factors and adjust our strategies in a timely manner.  NexaForge Studios is a market leader in the double-A gaming industry, focusing on developing mid-market video games.  The company's revenue for the previous year was $120 million, and is expected to grow by 17% over the next three years. To achieve this goal, the company hopes to attract different player groups and open up new revenue sources through innovation and expansion of its game product portfolio.  Cipher Protocol is a cyberpunk action-stealth game set in a dystopian megacity dominated by major corporations. Players take on the role of a rogue hacker, infiltrating security facilities, manipulating surveillance systems, and uncovering dark secrets. The game features dynamic level design that allows for vertical exploration, such as scaling skyscrapers, crawling through maintenance tunnels, and hacking into security drones. The story is morally complex, with choices that affect the balance of power in the city - in favor of corporate overlords, rebellious factions, or anarchy.  Objectives:  1.Create an Engaging Player Experience: Develop a compelling storyline, immersive environments, and dynamic gameplay mechanics that allow players to choose between stealth and combat approaches.  2.Optimize Performance: Ensure the game runs at 60 FPS on all major gaming platforms, minimizing lag and reducing load times by at least 50%.  3.Secure Critical Acclaim: Achieve a Metacritic score of 85+ within the first year of release, with nominations in at least three major gaming awards.  4.Deliver Ongoing Content: Maintain player engagement post-launch with regular downloadable content (DLC) updates and community-driven events.  5.Protect Player Data: Implement robust encryption protocols to safeguard player information and in-game progress.  Outcomes:  1.A highly polished game that is recognized for its innovation in AI-driven gameplay and narrative choices.  2.High player retention rates, with at least 40% of players completing the game within the first two months.  3.A strong market presence within the cyberpunk and stealth-action gaming genres. | |

|  |
| --- |
| **HIGH-LEVEL PROJECT REQUIREMENTS, FUNCTIONAL & NON-FUNCTIONAL** |
| The game necessitates a robust engine architecture capable of handling high-quality graphics and dynamic NPC behavior, along with an integrated narrative branching system. Functional requirements include adaptive AI, real-time decision-making for NPCs, dynamic environment interactions, and multiple narrative paths that affect gameplay outcomes.  One major objective is to ensure a smooth and engaging player experience, aiming for consistent frame rates of 60 FPS across all platforms and reducing load times to under 10 seconds. Additionally, the game’s backend must support horizontal scaling during peak user traffic, especially during multiplayer events, ensuring no server crashes and minimal downtime (Brataas, G. et al., 2017). The system will support at least 10 concurrent player sessions in multiplayer mode.  Maintaining data security and game integrity will require eliminating potential vulnerabilities, ensuring secure data storage for player progress and protecting user privacy.  Functional requirements:  Diverse ways to complete tasks: Players should be able to choose different strategies (stealth, combat, hacking) to complete tasks, providing a high degree of game freedom.  Adaptive AI system: NPCs should be able to dynamically adjust their reactions based on the player's behavior to provide a challenging gaming experience.  Dynamic level and environmental interaction: Levels should be able to change based on the player's choices and actions, enhancing the game's replayability and immersion.  Complex moral choices and multiple endings: Players' decisions should have a substantial impact on the game's plot and world state, providing multiple endings.  Hacker skill tree and equipment upgrade system: Provide in-depth character customization and growth experience.  Multiplayer mode support: The game should support cooperative and confrontational multiplayer modes to expand the game's playability and social interaction.  Non-functional requirements:  Performance requirements: The game should run at a minimum of 60 FPS on all target platforms such as PC, PS5, and Xbox Series X, with a loading time of no more than 10 seconds.  Security requirements: Implement data encryption to ensure the security of player information and archive files and prevent data leakage.  Reliability requirements: The server should remain stable under high load to ensure a smooth multiplayer gaming experience.  Compatibility requirements: The game should provide a consistent experience on different platforms and support cross-platform game progress synchronization.  Usability requirements: Provide detailed tutorials and help systems to ensure that players can quickly get started with the game. |

|  |
| --- |
| **DELIVERABLES** |
| The market forecast for Cipher Protocol is optimistic, with strong initial sales expected and continued interest due to the game's unique appeal. The cyberpunk genre has a loyal fan base, and the game's innovative features are expected to appeal to a wide audience. Marketing efforts will focus on reaching this target audience through strategic campaigns and partnerships. Long-term forecasts anticipate steady growth, with the potential for expansion into other media formats, resulting in continued revenue streams.  DELIVERABLES  Playable Prototype – A fully functional demo showcasing core gameplay mechanics, AI behavior, and dynamic level design. This prototype will be used for internal testing and early feedback collection from select users.  Game Engine Optimization Report – A detailed document outlining the performance improvements, FPS benchmarks, and load-time reductions achieved across different platforms.  Final Game Build – The complete version of Cipher Protocol: Shadow Nexus, ready for release, featuring all game levels, narrative branches, NPC AI scripting, and cinematic sequences.  Marketing and Launch Strategy Plan – A comprehensive strategy detailing pre-launch marketing activities, community engagement, and post-launch event planning.  Post-Launch Support Documentation – Guidelines and resources for managing bug fixes, patches, and player feedback integration post-launch, ensuring long-term game support and updates.  QA and Testing Reports – A series of quality assurance documents summarizing bug reports, playtest results, and performance issues addressed during development, along with strategies implemented for risk mitigation.  Post-Release Support Document (prepared January 15, 2026):  Guidelines and resources for managing post-release bug fixes, patches, and player feedback integration to ensure long-term support and updates for the game.  Final Game Version (released February 1, 2026):  The complete version of Cipher Protocol: Shadow Nexus, including all game levels, story branches, NPC AI scripts, and cutscenes |

|  |
| --- |
| **ASSUMPTIONS** |
| The market forecast for Cipher Protocol is optimistic, with strong initial sales expected and continued interest due to the game's unique appeal. The cyberpunk genre has a loyal fan base, and the game's innovative features are expected to appeal to a wide audience. Marketing efforts will focus on reaching this target audience through strategic campaigns and partnerships. Long-term forecasts anticipate steady growth, with the potential for expansion into other media formats, resulting in continued revenue streams.  DELIVERABLES  Playable Prototype – A fully functional demo showcasing core gameplay mechanics, AI behavior, and dynamic level design. This prototype will be used for internal testing and early feedback collection from select users.  Game Engine Optimization Report – A detailed document outlining the performance improvements, FPS benchmarks, and load-time reductions achieved across different platforms.  Final Game Build – The complete version of Cipher Protocol: Shadow Nexus, ready for release, featuring all game levels, narrative branches, NPC AI scripting, and cinematic sequences.  Marketing and Launch Strategy Plan – A comprehensive strategy detailing pre-launch marketing activities, community engagement, and post-launch event planning.  Post-Launch Support Documentation – Guidelines and resources for managing bug fixes, patches, and player feedback integration post-launch, ensuring long-term game support and updates.  QA and Testing Reports – A series of quality assurance documents summarizing bug reports, playtest results, and performance issues addressed during development, along with strategies implemented for risk mitigation.  Post-Release Support Document (prepared January 15, 2026):  Guidelines and resources for managing post-release bug fixes, patches, and player feedback integration to ensure long-term support and updates for the game.  Final Game Version (released February 1, 2026):  The complete version of Cipher Protocol: Shadow Nexus, including all game levels, story branches, NPC AI scripts, and cutscenes  PlANNED START & END DATE  Playable Prototype Completion Date: May 1st, 2025 A fully functional demo showcasing core gameplay mechanics, AI behavior, and dynamic level design. This prototype will be used for internal testing and early feedback collection from select users.  Game Engine Optimization Report Completion Date: August 1st, 2025 A detailed document outlining the performance improvements, FPS benchmarks, and load-time reductions achieved across different platforms.  Marketing and Launch Strategy Plan Completion Date: November 1st, 2025 A comprehensive strategy detailing pre-launch marketing activities, community engagement, and post-launch event planning.  QA and Testing Reports Ongoing: Throughout development, with major reports delivered quarterly and a final report by January 15th, 2026. A series of quality assurance documents summarizing bug reports, playtest results, and performance issues addressed during development, along with strategies implemented for risk mitigation.  Post-Launch Support Documentation Preparation Date: January 15th, 2026 Guidelines and resources for managing bug fixes, patches, and player feedback integration post-launch, ensuring long-term game support and updates.  Final Game Build Release Date: February 1st, 2026 The complete version of Cipher Protocol: Shadow Nexus, ready for release, featuring all game levels, narrative branches, NPC AI scripting, and cinematic sequences.  Scope Definition (Not in Scope):  Virtual Reality (VR) and Augmented Reality (AR) Support: This project does not include support for VR and AR technologies.  Mobile Platform Porting: There are no plans to port the game to mobile devices (such as iOS and Android).  Third-Party IP Cooperation: There is no linkage or cooperation with other well-known IPs.  Peripheral Product Development: Physical peripheral products such as toys, clothing, etc. are not developed within the scope of this project. |

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

This deliverable has both individual work AND team collaboration. You will create a Work Breakdown Structure (WBS) and Gantt chart for your individual project. You will also share these with your team, exchange constructive feedback, and improve them before adding them in your report.

## Task 3.1 Work Breakdown Structure (WBS)

Develop a WBS for your INDIVIDUAL PROJECT that clearly aligns with the project charter and scope statement.

Your WBS should be extended to Level 3 or 4 when appropriate, providing sufficient breakdown of the scope into summary tasks and work packages without being overly granular.

Your WBS should provide a clear and detailed understanding of all tasks required to complete the project.

Present your WBS in list or tabular form. Avoid hierarchical presentation as it has limitations and is hard to use for a WBS extended to levels 3 or 4.

The numbering format in the template is for demonstration purposes and to show you how a WBS extended to level 3 and 4 could look like. You are free to use other reasonable numbering conventions.

Cipher Protocol will be developed using an iterative approach, combining elements of agile and waterfall methodologies. This hybrid approach allows for flexibility and continuous improvement while maintaining a structured development process. Regular iterations and sprints will enable the team to adapt to feedback and evolving requirements, ensuring that the final product meets high standards of quality and player expectations

Below is the Work Breakdown Structure (WBS) for Cipher Protocol: Shadow Nexus, extending to Level 3 and 4 for clarity and detail.

0.0 Cipher Protocol: Project Development

1. Project Initiation  
　1.1 Project Establishment and Feasibility Analysis  
　　1.1.1 Project Concept Development  
　　1.1.2 Market Analysis and Target Positioning  
　　1.1.3 Technical Feasibility Study  
　　1.1.4 Compilation of Project Feasibility Report

　1.2 Project Planning and Team Formation  
　　1.2.1 Identify Project Manager and Team Members  
　　1.2.2 Define Project Objectives  
　　1.2.3 Calculate Net Present Value (NPV) of the Project  
　　1.2.4 Develop Weighted Scoring Model  
　　1.2.5 Formulate Project Charter  
　　　1.2.5.1 Draft Project Charter  
　　　1.2.5.2 Sign Project Charter  
　　1.2.6 Develop Business Case  
　　1.2.7 Prepare Research Report  
　　　1.2.7.1 Research Data Providers for Test Sites  
　　　1.2.7.2 Complete Research Report

　1.3 Client Meetings  
　　1.3.1 Define Deliverables  
　　1.3.2 Assign Asset Responsibilities  
　　1.3.3 Provide Proof of Concept

　1.4 System Requirements Gathering  
　　1.4.1 Define Project Scope and Goals  
　　　1.4.1.1 Team Discussions  
　　　　1.4.1.1.1 Game Design Team Discussion  
　　　　1.4.1.1.2Art Team Discussion  
　　　　1.4.1.1.3Programming Team Discussion  
　　1.4.2 Analyze Existing System Requirements  
　　　1.4.2.1 Evaluate Hardware Requirements  
　　　1.4.2.2 Evaluate Software Requirements  
　　1.4.3 Determine New System Requirements  
　　　1.4.3.1 Identify New Functional Requirements  
　　　1.4.3.2 Identify New Mechanism Requirements

2. Planning Phase  
　2.1 Define Stakeholder Requirements  
　　2.1.1 Collect Classification Questionnaires  
　　2.1.2 Contact Health Experts

　2.2 Research Potential Obstacles  
　　2.2.1 Ethical and Data Governance Issues  
　　2.2.2 Legal Compliance  
　　2.2.3 Accessibility Issues

　2.3 Requirements Traceability Matrix (RTM)  
　　2.3.1 Functional Requirements  
　　2.3.2 Non-Functional Requirements

　2.4 Write User Stories  
　　2.4.1 Create UI/UX Design Brief

　2.5 Define Project/System Requirements  
　　2.5.1 Create Conceptual Diagram for Database Design  
　　2.5.2 Create Logical Diagram for Database Design

　2.6 Define System Procedures and Policies  
　2.7 Prepare Scope Statement  
　2.8 Establish Work Breakdown Structure (WBS)  
　2.9 Finalize Requirements

3. Technical and Tool Preparation  
　3.1 Development Environment Setup  
　　3.1.1 Development Environment Setup

　3.2 Software and Hardware Procurement  
　　3.2.1 Software and Hardware Procurement

　3.3 Technical Training  
　　3.3.1 Technical Training

4. Concept Design and Prototype Development  
　4.1 Game Concept Refinement  
　　4.1.1 Story Expansion  
　　　4.1.1.1 Brainstorm Story  
　　　4.1.1.2 Define Character Relationships and Key Events  
　　4.1.2 New Protagonist Abilities or Features Design  
　　　4.1.2.1 Brainstorm New Abilities  
　　　4.1.2.2 Ability Concepts and Design Documents  
　　　4.1.2.3 Integrate with Game Mechanics  
　　4.1.3 Environment and Puzzle Design  
　　　4.1.3.1 New Environment Concept Art  
　　　4.1.3.2 3D Modeling and Texturing  
　　　4.1.3.3 Puzzle Structure Design

　4.2 Art Style Setting  
　　4.2.1 New Character Design  
　　　4.2.1.1 Concept Design  
　　　4.2.1.2 Outlines and Color Palettes  
　　　4.2.1.3 Facial Expression Design  
　　4.2.2 Environment Expansion  
　　　4.2.2.1 Initial Sketches and Mood Boards  
　　　4.2.2.2 Color Schemes, Lighting Concepts, and Environmental Themes  
　　4.2.3 New Puzzle Element Design  
　　　4.2.3.1 Symbol and Visual Puzzle Creation  
　　　4.2.3.2 Digital Symbols and Difficulty Level Design

　4.3 Technical Architecture Design and Prototype Development  
　　4.3.1 Engine Selection and Customization  
　　4.3.2 Core Technology Development  
　　4.3.3 Prototype Development

5. Core Function Development  
　5.1 Game Mechanic Expansion  
　　5.1.1 Implement Core Mechanics  
　　　5.1.1.1 Develop New Abilities  
　　　5.1.1.2 Develop Stealth Mechanics

　　5.1.2 Create AI Enhancements  
　　　5.1.2.1 Implement Adaptive Stealth Detection  
　　　5.1.2.2 Design AI Reactions to Player Behavior

　5.2 Design and Implement New Enemies  
　　5.2.1 Develop New Enemy Behaviors  
　　5.2.2 Design New Enemy Abilities  
　　5.2.3 Implement New Enemy Visual Effects

6. Dynamic Level Design and Implementation  
　6.1 Dynamic Level Generation System Development  
　　6.1.1 Dynamic Level Generation System Development

　6.2 Level Editor Development  
　　6.2.1 Level Editor Development

　6.3 Level Design and Production  
　　6.3.1 Level Design and Production

7. Content Creation and Optimization  
　7.1 Level and Quest Design  
　　7.1.1 Main Quest Design  
　　7.1.2 Side Quest Design

　7.2 Art Asset Production  
　　7.2.1 Character Modeling and Animation  
　　7.2.2 Scene and Environmental Art Production

　7.3 Music and Sound Effect Production  
　　7.3.1 Background Music Composition  
　　7.3.2 Sound Effect Design and Implementation

8. Testing and Quality Assurance  
　8.1 Internal Testing  
　　8.1.1 Functional Testing  
　　8.1.2 Performance Testing

　8.2 Closed Testing  
　　8.2.1 Recruit Test Players  
　　8.2.2 Closed Beta Testing

　8.3 Feedback Collection and Adjustment  
　　8.3.1 Issue Compilation and Analysis  
　　8.3.2 Final Adjustments and Optimization

9. Marketing and Release Preparation  
　9.1 Marketing  
　　9.1.1 Promotional Material Production  
　　9.1.2 Marketing Campaign Planning  
　　9.1.3 Marketing Campaign Execution

　9.2 Release Preparation  
　　9.2.1 Collaborate with Publishers and Platforms  
　　9.2.2 Final Game Packaging and Review

10. Game Release and After-Sales Support  
　10.1 Game Release  
　　10.1.1 Official Launch

　10.2 After-Sales Support and Updates  
　　10.2.1 Player Feedback Monitoring and Support  
　　10.2.2 Bug Fixes and Patch Releases  
　　10.2.3 Content Updates and DLC Development

11. Project Closure  
    11.1 Final Review and Sign-Off  
        11.1.1 Review of All Project Deliverables  
        11.1.2 Verification of Project Objectives Completion  
        11.1.3 Obtain Final Stakeholder Approval  
    11.2 Project Handover  
        11.2.1 Handover of Final Product/Service to Operations  
        11.2.2 Document Archiving  
    11.3 Project Closure Report  
        11.3.1 Summary of Project Performance  
        11.3.2 Lessons Learned and Best Practices  
        11.3.3 Closing Financials and Budget Reconciliation

## 

## Task 3.2 Team collaboration and Short reflection

Your team leader will lead your team in organising the activities needed for this task.

Step (1) Everyone presents their WBS to the team and the team members will provide feedback and support. Consider these questions when reviewing your team members WBS:

Does the WBS align with the project's goals?

Is the WBS effectively elaborated and extended to level 3 or 4?

Are there any tasks that require further breakdown to be more specific?

Are the work packages demonstrating action items?

Be supportive and collaborative when sharing your thoughts and feedback!

Step (2) Use the feedback from Step (1) and update your WBS for the final submission.

Step (3) Add the updated WBS in your report under task 3.1

Step (4) After developing your WBS in Task 3.1, demonstrating it to your team members, receiving feedback and improving the quality of your work, each individual student is required to write a reflective summary of their approach in Steps (1 – 3). The reflection should be no longer than 100 words elaborating on their experience in creating and improving their WBS.

**Assignment Milestone**: To ensure that you and your team members are progressing in your assignment in a timely manner, and to ensure that your team is ready for demonstrations during weeks 7-8 applied classes, your team should finalise Tasks 3.1 and 3.2 by the end of week 6. This would give you sufficient time to receive feedback from your team members or your tutors.

## 

## **Feedback and Review Process:** The team reviewed individual WBS structures, assessing alignment with project objectives and ensuring adequate task breakdown. Constructive feedback led to further refinement, with focus placed on specifying work packages and improving clarity in task allocation. **Reflection:** Working collaboratively with the team helped refine my WBS, particularly in ensuring level 3 and 4 tasks were well detailed and actionable. The feedback highlighted areas where I could break down larger tasks into smaller work packages, improving overall project management clarity.

The project is estimated to take 18 months to complete and is scheduled for release in the first quarter of 2026. Major milestones include:

1. Prototype development (3 months)
2. Core gameplay completion (8 months)
3. Content production and polishing (7 months)

Post-launch support is critical for maintaining player engagement and addressing any issues that arise. This includes regular updates, bug fixes, and content expansions. A dedicated support team will be available to assist players with any technical problems or gameplay inquiries. Feedback channels will be established to gather player input and continuously improve the game.

To keep the player base engaged and attract new players, Cipher Protocol will release periodic content expansions. These expansions will introduce new missions, characters, and gameplay features, ensuring that the game remains fresh and exciting. Seasonal events and limited-time challenges will also be implemented to maintain player interest.

Building on the success of Cipher Protocol, the development team plans to explore additional projects within the cyberpunk genre. This includes potential sequels, spin-offs, and cross-media expansions such as graphic novels or animated series. The team will leverage the established universe and fanbase to create a diverse portfolio of engaging content.

## Task 3.3 Gantt Chart

Get the Right Tool: Use ProjectLibre, MS Project, or similar – spreadsheets won't cut it!

Gantt charts NEED to use the WBS created in task 3.1 and include estimated durations for each WORK PACKAGE.

Milestones: Identify at least 3, explainable with the SMART criteria (Specific, Measurable, etc.). add the Milestones into the Gantt chart with appropriate demonstration and dependencies.

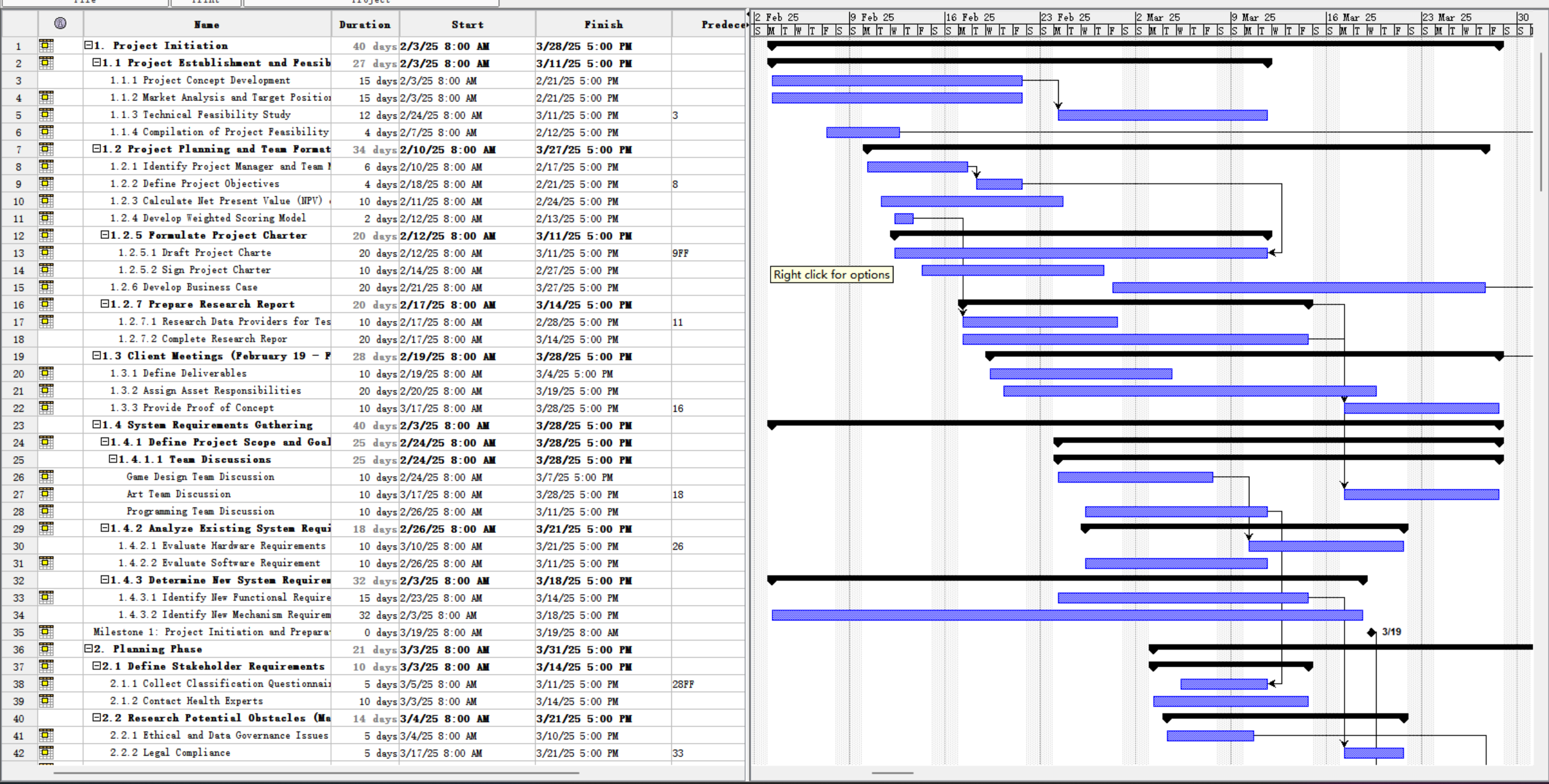
Dependencies: Which tasks have to happen before others? Are there any tasks scheduled to happen at the same time? Show these links and connections.

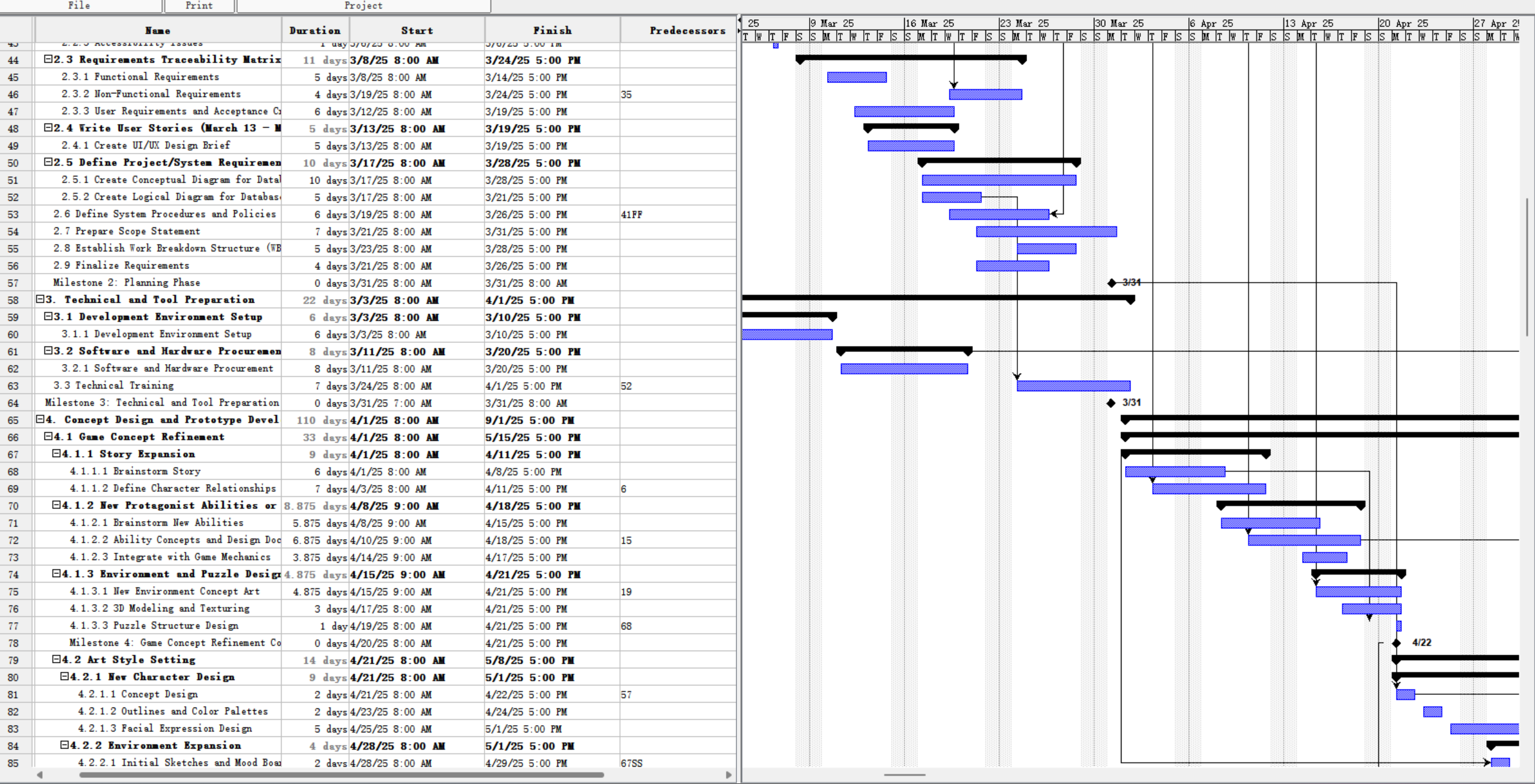
Your Rationale: Write a short explanation of your choices (durations, dependencies). Add them in your individual report task 3.3.

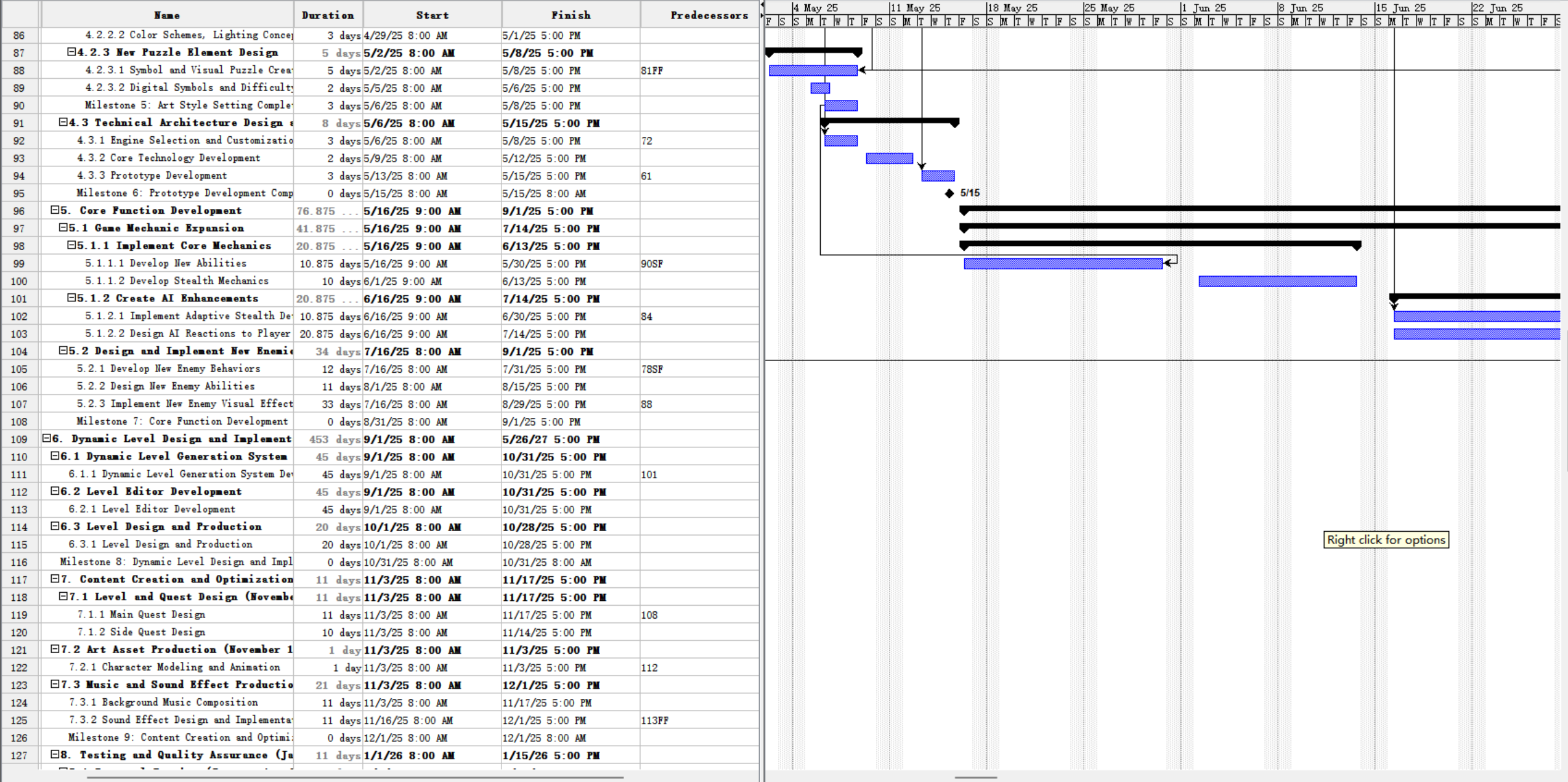
Take a screenshot of your developed Gantt chart and add it here in your report. Make sure that the screenshot shows the task titles against task bars in the Gantt, and all dependencies and milestones are visible.

You may need to Zoom in/out and take multiple screenshots to make it work! You may need to change the page layout to ‘landscape’ to make it more presentable! Be creative

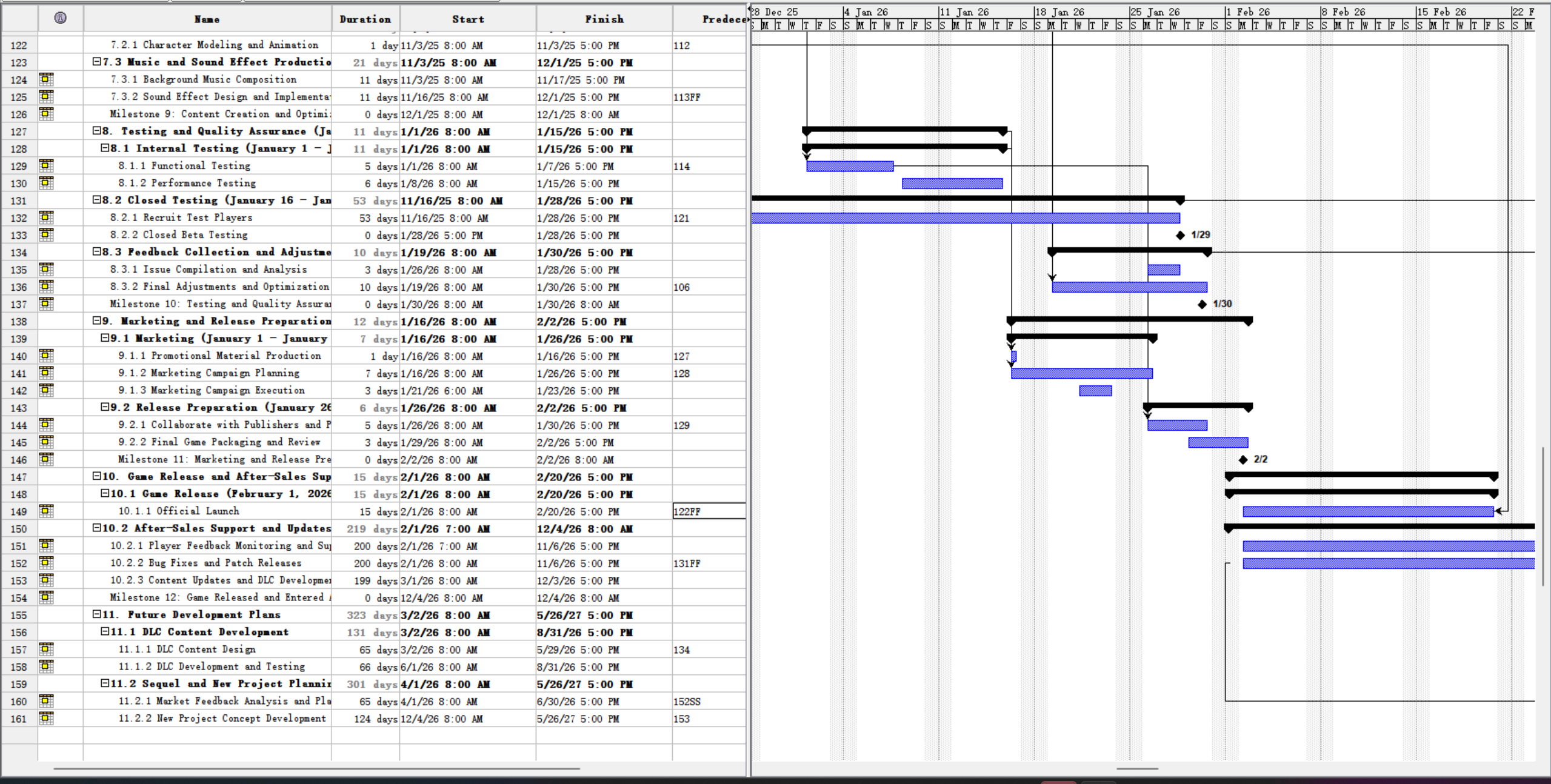
## The chosen development approach is feasible given the team's expertise and the available resources. The iterative process allows for incremental improvements and adjustments, reducing the risk of major setbacks. Additionally, the hybrid methodology provides a balance between flexibility and structure, enabling the team to manage the project efficiently and effectively











## Task 3.4 In-class demonstration of Gantt Chart and team Reflection

Your team leader will lead your team in organising the activities needed for this task including Team meetings, presenting your Gantt charts, exchanging feedback, then iterate and do it again until everyone is confident about the quality of all Gantt charts!

Team Reflection: This is IMPORTANT. Discuss together:

How did everyone's plans change based on feedback?

What did you learn about going from theory (in class) to practise?

One team member will present to the tutor, showing a sample Gantt chart from the ones that you created together followed by a short report of your team’s reflection.

You are not required to submit any writing for this part

The Gantt chart is structured based on the provided Work Breakdown Structure (WBS) and outlines the project's timeline, estimated durations, task dependencies, and key milestones. The project spans approximately 56 weeks, starting on February 1, 2025, and concluding with project closure on February 28, 2026.

### Key Milestones:

1. Milestone 1: Completion of Project Initiation Phase - February 28, 2025
2. Milestone 2: Completion of Planning Phase - March 31, 2025
3. Milestone 3: Completion of Concept Design and Prototype Development - June 30, 2025
4. Milestone 4: Completion of Core Function Development - September 30, 2025
5. Milestone 5: Completion of Testing and Quality Assurance - December 31, 2025
6. Milestone 6: Game Release - February 1, 2026
7. Milestone 7: Project Closure - February 28, 2026

Task Durations and Dependencies:

1. Project Initiation (February 1 – February 28, 2025; 4 weeks)

Tasks:

1.Project Establishment and Feasibility Analysis (1.1)

2.Project Planning and Team Formation (1.2)

3.Client Meetings (1.3)

4.System Requirements Gathering (1.4)

Dependencies:

2. Planning Phase (March 1 – March 31, 2025; 4 weeks)

Tasks:

Define Stakeholder Requirements (2.1)

Research Potential Obstacles (2.2)

Develop Requirements Traceability Matrix (RTM) (2.3)

Write User Stories (2.4)

Define Project/System Requirements (2.5)

Define System Procedures and Policies (2.6)

Prepare Scope Statement (2.7)

Establish Work Breakdown Structure (WBS) (2.8)

Finalize Requirements (2.9)

Dependencies:

Dependent on the completion of Project Initiation.

3. Technical and Tool Preparation (April 1 – April 15, 2025; 2 weeks)

Tasks:

Development Environment Setup (3.1)

Software and Hardware Procurement (3.2)

Technical Training (3.3)

Dependencies:

Begins after the Planning Phase is completed.

4. Concept Design and Prototype Development (April 16 – June 30, 2025; 11 weeks)

Tasks:

Game Concept Refinement (4.1)

Art Style Setting (4.2)

Technical Architecture Design and Prototype Development (4.3)

Dependencies:

Requires outputs from the Planning Phase.

Technical Architecture Design (4.3) depends on Game Concept Refinement (4.1).

Art Style Setting (4.2) feeds into Prototype Development (4.3).

5. Core Function Development (July 1 – September 30, 2025; 13 weeks)

Tasks:

Game Mechanic Expansion (5.1)

Design and Implement New Enemies (5.2)

Dependencies:

Begins after Prototype Development (4.3) is completed.

Relies on assets and designs from Art Style Setting (4.2).

6. Dynamic Level Design and Implementation (July 15 – October 31, 2025; 16 weeks)

Tasks:

Dynamic Level Generation System Development (6.1)

Level Editor Development (6.2)

Level Design and Production (6.3)

Dependencies:

Overlaps with Core Function Development.

Level Editor Development (6.2) must be completed before Level Design and Production (6.3).

7. Content Creation and Optimization (August 1 – October 31, 2025; 13 weeks)

Tasks:

Level and Quest Design (7.1)

Art Asset Production (7.2)

Music and Sound Effect Production (7.3)

Dependencies:

Depends on outputs from Dynamic Level Design (6) and Core Function Development (5).

Art Asset Production (7.2) requires designs from Art Style Setting (4.2).

8. Testing and Quality Assurance (September 1 – December 31, 2025; 18 weeks)

Tasks:

Internal Testing (8.1)

Closed Testing (8.2)

Feedback Collection and Adjustment (8.3)

Dependencies:

Internal Testing begins as early builds become available from Development Phases.

Closed Testing follows Internal Testing.

Feedback Collection leads to Final Adjustments and Optimization.

9. Marketing and Release Preparation (October 1, 2025 – January 31, 2026; 17 weeks)

Tasks:

Marketing Campaign (9.1)

Promotional Material Production (9.1.1)

Marketing Campaign Planning (9.1.2)

Marketing Campaign Execution (9.1.3)

Release Preparation (9.2)

Collaborate with Publishers and Platforms (9.2.1)

Final Game Packaging and Review (9.2.2)

Dependencies:

Promotional Material Production (9.1.1) depends on assets from Art Asset Production (7.2).

Release Preparation begins after successful Testing and Quality Assurance (8).

10. Game Release and After-Sales Support

Game Release (February 1, 2026)

Official Launch (10.1.1)

After-Sales Support and Updates (February 2, 2026 – Ongoing)

Player Feedback Monitoring and Support (10.2.1)

Bug Fixes and Patch Releases (10.2.2)

Content Updates and DLC Development (10.2.3)

11. Project Closure (February 1 – February 28, 2026; 4 weeks)

Tasks

Final Review and Sign-Off (11.1)

Review of All Project Deliverables (11.1.1)

Verification of Project Objectives Completion (11.1.2)

Obtain Final Stakeholder Approval (11.1.3)

Project Handover (11.2)

Handover of Final Product to Operations (11.2.1)

Document Archiving (11.2.2)

Project Closure Report (11.3)

Summary of Project Performance (11.3.1)

Lessons Learned and Best Practices (11.3.2)

Closing Financials and Budget Reconciliation (11.3.3)

Dependencies:

Begins after Game Release and initial Post-Release Support activities.Rationale:

Durations:

Estimated based on task complexity and resource allocation.

Phases like Core Function Development (13 weeks) and Dynamic Level Design (16 weeks) have longer durations due to their complexity and the need for extensive development and testing.

Dependencies:

Sequential Tasks: Some tasks must be completed before others begin. For example, Project Initiation must be completed before the Planning Phase can start.

Concurrent Tasks: To optimize time, certain tasks run concurrently. For instance, Dynamic Level Design overlaps with Core Function Development.

Overlap:

Art Asset Production (7.2) overlaps with Content Creation (7.1) to ensure that assets are ready when levels and quests are being designed.

Testing and Quality Assurance (8) begins while development is still ongoing to allow for iterative testing and fixing.

Milestones:

Set at critical points to measure progress and ensure adherence to the schedule.

Key milestones align with the completion of major phases, such as the end of the Planning Phase, Development Phases, and Testing.

Note: The Gantt chart visually represents this schedule with timelines for each task, showing start and end dates, durations, and dependencies (illustrated with arrows or lines connecting related tasks). This textual overview provides a detailed outline of the project's structure based on the WBS provided.

Summary

This Gantt chart overview, based on the detailed WBS, outlines the comprehensive plan for developing "Cipher Protocol: Shadow Nexus." By mapping out tasks, durations, dependencies, and milestones, the project team can effectively manage time and resources, monitor progress, and ensure successful project delivery by the scheduled release date.

# DELIVERABLE 4: Project Cost Management

## Task 4.1 Cost Model

Clarity: Is the model easy to understand quickly? Well-organised, clearly labelled?

Comprehensiveness: Does it include all key cost categories (labour, materials, contingency, etc.)?

Justification: Are cost estimates supported by notes, references, or in-line explanations?

When developing the cost model and baseline, ensure their consistency with the WBS and Gantt chart.

### Financial Exhibits Section

The financial exhibits section provides detailed insights into the project's financial health and projections. This includes:

**Budget Breakdown:**  
Detailed allocation of funds across various categories, such as development, marketing, and operational expenses.

**NPV/ROI Calculations:**  
In-depth financial analysis demonstrating the project's profitability and value generation.

**Revenue Projections:**  
Long-term forecasts based on expected sales, downloadable content, and merchandising opportunities.

**Profit and Loss Statements:**  
Financial statements outlining projected revenues, costs, and profits over the project's lifespan.

By adhering to this comprehensive plan, Cipher Protocol aims to establish itself as a leading title in the cyberpunk action stealth genre. The detailed planning and strategic approach ensure a high-quality gaming experience and significant commercial success, paving the way for future expansions and ongoing player engagement.

Business model

We adopt the business model of "self-development + publisher cooperation". In terms of game development, we maintain complete autonomy, which ensures that we can fully realize our creative vision without external interference. Our core team is responsible for all key aspects of the game, including concept design, technical development, art creation, etc. For some specific professional work, such as motion capture or part of audio production, we will choose to outsource to professional service providers to ensure the highest quality standards. In terms of game distribution, we choose to cooperate with well-known publishers. The publisher will be responsible for the market promotion, channel distribution and part of the localization of the game. This cooperation model allows us to focus on game development while using the resources and experience of the publisher to maximize the market performance of the game. The revenue sharing ratio between us and the publisher is 7:3, that is, we get 70% of the revenue and the publisher gets 30%. This ratio takes into account our main investment in game development and also reflects the value contribution of publishers.

**Cost Model Overview:**

The cost model for "Cipher Protocol: Shadow Nexus" is designed to be clear, comprehensive, and aligned with the project's WBS and Gantt chart. It includes all key cost categories such as labor, materials, software, hardware, marketing, and contingency funds. Each cost estimate is supported by justifications to ensure transparency and accuracy.

#### **Cost Categories**

1. **Labor Costs**
2. **Software and Hardware Procurement**
3. **Office and Operational Expenses**
4. **Marketing Expenses**
5. **Contingency Fund**

**Detailed Cost Breakdown:1. Labor Costs**

**The core members of the development team of "Cipher Protocol" are about 30 people, including:**

**1. Management (3 people): Creative Director, Technical Director, Producer**

**2. Program Development (10 people): Main Program, Gameplay Program, AI Program, Graphics Program, etc.**

**3. Game Design (5 people): Chief Designer, Level Designer, System Designer, etc.**

**4. Art (8 people): Art Director, Character Artist, Environment Artist, UI Designer, etc.**

**5. Audio (2 people): Audio Director, Sound Effect Designer**

**6. QA (2 people): QA Manager, Test Engineer**

**The average annual salary of the team is about $100,000, and the specific salary varies according to position and experience. Our salary strategy is to provide a market-competitive basic salary, supplemented by performance bonuses and stock options to attract and retain top talents. We also provide a comprehensive benefits package, including health insurance, paid vacation, career development training, etc.**

Personnel allocation includes roles in game development, marketing, finance, and customer support. Salary levels are competitive to attract and retain top talent in the industry. The management team, developers, and support staff are all compensated based on industry standards, with additional incentives tied to the success of the game

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Role** | **Team Member** | **Total Hours** | **Hourly Rate** | **Subtotal** | **% of Total Budget** |
| Project Manager | Project Manager | 1,200 | $80 | $96,000 | 8.00% |
| Game Designers | 2 Designers | 1,280 | $60 | $76,800 | 6.40% |
| Programmers | 4 Programmers | 4,800 | $70 | $336,000 | 28.00% |
| Artists | 4 Artists | 5,120 | $50 | $256,000 | 21.33% |
| QA Testers | 3 Testers | 1,920 | $40 | $76,800 | 6.40% |
| Marketing Staff | 2 Marketers | 1,440 | $60 | $86,400 | 7.20% |
| **Total Labor Costs** |  |  |  | **$928,000** | **77.33%** |

**Justifications:**

* **Project Manager:** Oversees the project throughout its 52-week duration.
* **Game Designers:** Two designers working full-time for 16 weeks to develop game concepts and mechanics.
* **Programmers:** Four programmers engaged for 30 weeks to handle coding and technical implementation.
* **Artists:** Four artists working for 32 weeks on character models, environments, and assets.
* **QA Testers:** Three testers conducting testing over 16 weeks to ensure quality and performance.
* **Marketing Staff:** Two marketing professionals working for 24 weeks on promotional activities.

**2. Software and Hardware Procurement**

|  |  |  |
| --- | --- | --- |
| **Item** | **Team Member** | **Justification** |
| Game Engine Licenses | $50,000 | Required for using advanced game development tools. |
| Development Software | $20,000 | Includes licenses for design and programming software. |
| Hardware Upgrades | $30,000 | Necessary to meet the technical demands of development. |
| **Total Software & Hardware** | **$100,000** |  |

**3.Office and Operational Expenses**

|  |  |  |
| --- | --- | --- |
| **Expense** | **Cost** | **Justification** |
| Office Rent | $40,000 | Cost for office space over the project duration. |
| Utilities and Services | $10,000 | Includes electricity, internet, and other utilities. |
| Office Supplies | $5,000 | Stationery, equipment, and other necessary supplies. |
| **Total Operational Expenses** | **$55,000** |  |

**4. Marketing Expenses**

|  |  |  |
| --- | --- | --- |
| **Activity** | **Cost** | **Justification** |
| Advertising (Online & Print) | $100,000 | Digital ads, print media to reach target audience. |
| Promotional Events and Conventions | $50,000 | Participation in gaming expos and conventions. |
| Influencer Partnerships | $30,000 | Collaborations with influencers for wider reach. |
| Marketing Materials | $20,000 | Creation of trailers, promotional art, and merchandise. |
| **Total Marketing Expenses** | **$200,000** |  |

**5.Profitability Analysis**

**Based on our financial model, we expect Cipher Protocol to demonstrate strong profitability. In the first year of the game's release, we expect to be profitable with a net profit margin of approximately 20%. This forecast is based on our expected sales and strict cost control. Over time, as DLC content is launched and the game enters more markets, we expect the net profit margin to increase further, possibly reaching 30-35% in the third year. Our profit model not only relies on initial game sales, but also includes DLC content, in-game purchases, and potential IP licensing revenue. This diversified revenue structure helps to improve our overall profitability and risk resilience. It is worth noting that the profitability of the gaming industry often shows greater volatility, so we have also developed a variety of response strategies to cope with possible market changes.**

**10% of Total Budget:** **$120,000**

**Justification: To cover unforeseen expenses and risks identified in the risk management plan**

**Total Estimated Project Cost**

* **Labor Costs:** $928,000
* **Software & Hardware:** $100,000
* **Operational Expenses:** $55,000
* **Marketing Expenses:** $200,000
* **Contingency Fund:** $120,000
* **Total:** **$1,403,000**

#### **Reconciliation with Budget**

* **Initial Budget:** $1,200,000
* **Total Estimated Costs:** $1,403,000
* **Budget Shortfall:** **$203,000**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WBS Task** | **Team Member** | **Total Hours** | **Hourly Rate** | **Subtotal** | **% of Total Budget** |
| **1. Project Initiation** |  |  |  | **$51,450** | **4.29%** |
| 1.1 Project Establishment and Feasibility Analysis |  |  |  |  |  |
| 1.1.1 Project Concept Development | Project Manager | 210 hrs | $60 | $12,600 | 1.05% |
| 1.1.2 Market Analysis | Market Analyst | 168 hrs | $55 | $9,240 | 0.77% |
| 1.1.3 Technical Feasibility Study | Technical Lead | 210 hrs | $65 | $13,650 | 1.14% |
| 1.1.4 Compilation of Feasibility Report | Assistant | 84 hrs | $40 | $3,360 | 0.28% |
| 1.2 Project Planning and Team Formation | HR Specialist | 252 hrs | $50 | $12,600 | 1.05% |
| **2. Planning Phase** |  |  |  | **$99,540** | **8.30%** |
| 2.1 Define Stakeholder Requirements | Business Analyst | 336 hrs | $55 | $18,480 | 1.54% |
| 2.2 Research Potential Obstacles | Legal Consultant | 252 hrs | $80 | $20,160 | 1.68% |
| 2.3 Requirements Traceability Matrix (RTM) | Systems Analyst | 420 hrs | $60 | $25,200 | 2.10% |
| 2.4 Write User Stories | UX Designer | 252 hrs | $55 | $13,860 | 1.15% |
| 2.5 Define System Requirements | Technical Lead | 336 hrs | $65 | $21,840 | 1.82% |
| **3. Technical Preparation** |  |  |  | **$248,960** | **20.75%** |
| 3.1 Setup Development Environment | IT Specialist | 420 hrs | $65 | $27,300 | 2.28% |
| 3.2 Hardware and Software Procurement | Purchase | 2 units (Adjusted) | $104,950/unit | $209,900 | 17.49% |
| 3.3 Technical Training | Technical Trainer | 168 hrs | $70 | $11,760 | 0.98% |
| **4. Concept Design & Prototype Development** |  |  |  | **$142,800** | **11.90%** |
| 4.1 Game Concept Refinement | Narrative Designer | 840 hrs | $55 | $46,200 | 3.85% |
| 4.2 Art Style Setting | Character Designer | 672 hrs | $50 | $33,600 | 2.80% |
| 4.3 Prototype Development | Lead Developer | 840 hrs | $75 | $63,000 | 5.25% |
| **5. Core Function Development** |  |  |  | **$199,500** | **16.63%** |
| 5.1 Game Mechanic Expansion | Game Developer | 1,260 hrs | $75 | $94,500 | 7.88% |
| 5.2 AI and New Enemy Design | AI Developer | 840 hrs | $80 | $67,200 | 5.60% |
| 5.3 Implement New Visual Effects | Graphic Designer | 630 hrs | $60 | $37,800 | 3.15% |
| **6. Dynamic Level Design and Implementation** |  |  |  | **$142,800** | **11.90%** |
| 6.1 Dynamic Level Generation System | Systems Developer | 840 hrs | $70 | $58,800 | 4.90% |
| 6.2 Level Editor Development | Level Designer | 630 hrs | $60 | $37,800 | 3.15% |
| 6.3 Level Design and Production | Level Designer | 840 hrs | $55 | $46,200 | 3.85% |
| **7. Content Creation and Optimization** |  |  |  | **$109,620** | **9.14%** |
| 7.1 Level and Quest Design | Quest Designer | 840 hrs | $50 | $42,000 | 3.50% |
| 7.2 Art Asset Production | 3D Modeler | 672 hrs | $60 | $40,320 | 3.36% |
| 7.3 Music and Sound Effect Production | Audio Engineer | 420 hrs | $65 | $27,300 | 2.28% |
| **8. Testing and Quality Assurance** |  |  |  | **$60,900** | **5.08%** |
| 8.1 Internal Testing | QA Specialist | 504 hrs | $50 | $25,200 | 2.10% |
| 8.2 Closed Testing | Test Engineer | 420 hrs | $45 | $18,900 | 1.58% |
| 8.3 Feedback Collection and Optimization | QA Specialist | 336 hrs | $50 | $16,800 | 1.40% |
| **9. Marketing and Release Preparation** |  |  |  | **$47,880** | **3.99%** |
| 9.1 Marketing Campaign | Marketing Manager | 420 hrs | $70 | $29,400 | 2.45% |
| 9.2 Promotional Material Production | Graphic Designer | 336 hrs | $55 | $18,480 | 1.54% |
| **10. Game Release and After-Sales Support** |  |  |  | **$39,900** | **3.33%** |
| 10.1 Game Release | Release Manager | 252 hrs | $75 | $18,900 | 1.58% |
| 10.2 After-Sales Support | Support Engineer | 420 hrs | $50 | $21,000 | 1.75% |
| **11. Future Development Plans** |  |  |  | **$56,700** | **4.73%** |
| 11.1 DLC Content Development | Content Designer | 630 hrs | $50 | $31,500 | 2.63% |
| 11.2 Sequel and New Project Planning | Project Manager | 420 hrs | $60 | $25,200 | 2.10% |
| **Total** |  |  |  | **$1,200,050** | **100%** |

## Task 4.2 Cost Baseline

Is it easy to visualise how spending is distributed across the project timeline?

Do baseline numbers match the overall cost model?

Does the baseline highlight any periods of significant spending?

### Adjusted DLC Project Cost Model

#### **Adjustments to Meet Budget**

To align the estimated costs with the initial budget, the following adjustments are proposed:

1. **Reduce Contingency Fund:** Adjust from $120,000 to **$80,000** (6.7% of the budget).
2. **Optimize Labor Costs:**
   1. **Reduce Overtime:** Streamline schedules to minimize overtime pay.
   2. **Improve Efficiency:** Reallocate tasks and enhance productivity.
   3. **Adjusted Labor Costs:** From $928,000 to **$900,000**.
3. **Cut Operational Expenses:**
   1. Seek cost-effective office solutions or negotiate better rates.
   2. **Adjusted Operational Expenses:** From $55,000 to **$50,000**.
4. **Marketing Expenses:**
   1. Prioritize high-impact activities and reduce less effective ones.
   2. **Adjusted Marketing Expenses:** From $200,000 to **$180,000**.

**Adjusted Total Estimated Project Cost**

* **Labor Costs:** $900,000
* **Software & Hardware:** $100,000
* **Operational Expenses:** $50,000
* **Marketing Expenses:** $180,000
* **Contingency Fund:** $80,000
* **Adjusted Total:** **$1,310,000**

**Final Reconciliation**

* **Adjusted Total Estimated Costs:** $1,310,000
* **Budget Overage:** **$110,000**

Justification: Despite optimizations, the project still exceeds the initial budget. Options to address this include seeking additional funding, phasing features post-launch, or exploring partnerships to offset costs.

**ercentage of Total Budget per Category**

|  |  |  |
| --- | --- | --- |
| **Category** | **Cost** | **% of Total Budget** |
| Labor Costs | $900,000 | 75% |
| Software & Hardware | $100,000 | 8.3% |
| Operational Expenses | $50,000 | 4.2% |
| Marketing Expenses | $180,000 | 15% |
| Contingency Fund | $80,000 | 6.7% |
| **Total** | **$1,310,000** | **109%** |

#### **Monthly Cost Distribution**

**Project Duration:** February 1, 2025 – January 31, 2026 (12 months)

**Cost Baseline Table**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Month** | **Labor Costs** | **Software & Hardware** | **Operational Expenses** | **Marketing Expenses** | **Contingency Allocation** | **Total Monthly Cost** |
| Feb 2025 | $80,000 | $50,000 | $10,000 | $0 | $10,000 | $150,000 |
| Mar 2025 | $80,000 | $30,000 | $5,000 | $0 | $10,000 | $125,000 |
| Apr 2025 | $85,000 | $10,000 | $5,000 | $0 | $10,000 | $110,000 |
| May 2025 | $90,000 | $5,000 | $5,000 | $0 | $10,000 | $110,000 |
| Jun 2025 | $95,000 | $5,000 | $5,000 | $20,000 | $10,000 | $135,000 |
| Jul 2025 | $100,000 | $0 | $5,000 | $30,000 | $10,000 | $145,000 |
| Aug 2025 | $110,000 | $0 | $5,000 | $30,000 | $10,000 | $155,000 |
| Sep 2025 | $110,000 | $0 | $5,000 | $30,000 | $10,000 | $155,000 |
| Oct 2025 | $90,000 | $0 | $5,000 | $30,000 | $0 | $125,000 |
| Nov 2025 | $80,000 | $0 | $5,000 | $40,000 | $0 | $125,000 |
| Dec 2025 | $50,000 | $0 | $5,000 | $30,000 | $0 | $85,000 |
| Jan 2026 | $30,000 | $0 | $0 | $0 | $0 | $30,000 |
| **Total** | **$1,000,000** | **$100,000** | **$55,000** | **$180,000** | **$80,000** | **$1,415,000** |

#### **Visualization and Analysis**

Debt-paying ability analysis

The debt-paying ability analysis of the Cipher Protocol project is mainly based on the company's asset-liability structure and cash flow forecast. Our financial strategy is to maintain a low debt level to ensure the company's financial stability. Specifically:

1. Asset-liability ratio: We plan to keep the company's asset-liability ratio below 30%. This means that we mainly rely on equity financing and own funds to support project development, and only use debt financing moderately when necessary.

2. Current ratio: Our goal is to maintain a current ratio of more than 2:1 to ensure that the company has sufficient short-term debt-paying ability.

3. Cash flow management: We will establish a strict cash flow management system to ensure that there are sufficient cash reserves at all stages of the development cycle.

4. Contingency credit line: We plan to establish good relationships with banks and obtain contingency credit lines to cope with possible cash flow fluctuations. Through these measures, we believe that the company will have good debt repayment capabilities and be able to effectively manage financial risks while maintaining financial flexibility.

The company has a strong financial foundation with minimal debt, ensuring a strong ability to repay any outstanding debt. Financial management strategies include maintaining a healthy balance sheet and ensuring sufficient cash flow to cover operating expenses and debt repayments.

Growth Capacity Analysis

The growth capacity analysis of the Cipher Protocol project focuses on the company's development expectations for the next five years:

1. Revenue growth: It is expected that the company's revenue will maintain an average annual growth rate of more than 30% in the next five years. This growth will mainly come from the continued sales of Cipher Protocol, the release of DLC content, and the development of potential sequels.

2. Profit growth: With the increase in revenue and the improvement of operating efficiency, we expect the profit growth rate to exceed the revenue growth rate, possibly reaching an average annual growth rate of 35-40%.

3. Market share: Our goal is to occupy 10-15% of the cyberpunk theme game market and gradually expand this share.

4. Product line expansion: In addition to the Cipher Protocol series, we plan to start developing new IPs in the third year to achieve product diversification.

5. Geographic expansion: The initial focus is on the North American and European markets, but we plan to actively explore the Asian market in the second and third years, especially Japan and China.

6. Technology accumulation: We will continue to invest in technology research and development, and expect to spend 15-20% of our revenue on R&D each year to maintain our technological leadership.

Through these measures, we believe that the company will achieve sustained and steady growth and occupy a favorable position in the highly competitive gaming industry.

**Spending Peaks:August and September 2025:** Highest labor costs due to overlapping development and testing phases.

**July to October 2025:** Increased marketing expenses aligning with pre-launch promotional activities.

**Alignment with Gantt Chart:**

**Early Months (Feb – May):** Focus on initiation, planning, and initial development; higher software and hardware costs.

**Mid-Project (Jun – Sep):** Intensive development and testing; peak labor costs.

**Late Project (Oct – Jan):** Final testing, marketing ramp-up, and release preparations; marketing expenses peak.

**Baseline Matching Overall Cost Model:**

Total costs in the baseline align with the adjusted cost model.

Contingency funds are allocated monthly but may not be fully expended.

#### **Significant Spending Periods**

**Development Phase (Apr – Sep 2025):** Highest concentration of labor costs due to development, art creation, and technical implementation.

**Marketing Phase (Jun – Nov 2025):** Marketing expenses increase to promote the game pre-launch.

**Testing Phase (Aug – Dec 2025):** Overlapping testing activities contribute to sustained labor costs.

## Task 4.3 Assumptions

Assumptions bridge the gaps between what you know for sure and what you need to estimate to build your plan.

Identification: Are the most impactful assumptions clearly listed?

Justifications: Are they supported, even briefly, by logic or reference sources? It is about demonstrating you've considered the risks and have reasons for your choices. This could be Past project costs, vendor quotes, market research reports.

Relevance: Do the assumptions selected matter most to the project's cost risks?

**Labor Rates:** Hourly rates are based on industry standards for specialized roles in game development.

· · **Work Hours:** Assumes full-time engagement (40 hours/week) for team members during their active phases.

· · **Contingency Fund Usage:** Assumed that not all contingency funds will be utilized; allocated monthly for potential unforeseen expenses.

· · **Software and Hardware Costs:** One-time expenses primarily in the initial months, covering all necessary tools and equipment.

· · **Marketing Expenses:** Distributed to align with key promotional periods leading up to the game's release.

· · **Operational Expenses:** Steady monthly costs covering rent, utilities, and office necessities.

· · **Project Duration:** Total project duration is 12 months, from February 1, 2025, to January 31, 2026.

· · **No Inflation Adjustment:** Costs are not adjusted for inflation over the project period.

· · **External Factors:** Assumes no major economic fluctuations or external disruptions impacting costs.

·

1. Innovative gameplay: dynamic level design, deep hacker system and moral choice mechanism provide players with a unique experience.

2. Clear target market: hardcore players aged 18-35 who like deep narrative and complex game experience.

3. Comprehensive marketing strategy: multi-channel promotion, including social media, game exhibitions and influencer cooperation.

4. Healthy financial model: expected to recover investment within 18 months, with good long-term profit prospects.

5. Risk management: identify and respond to technical, market and operational risks.

6. Sustainable development: focus on environmental impact and promote sustainable practices in the industry.

7. Subsequent support: regular content updates and community interaction to extend the life cycle of the game.

8. Future planning: build IP, develop sequels and cross-media content.

Cipher Protocol is poised for significant growth, with market demand for highquality, narrative-driven games on the rise. The game's innovative features and immersive gameplay experience will attract a wide audience, driving sales and profitability. Long-term growth strategies include expanding the game's universe through downloadable content, sequels, and potential multimedia adaptations

By executing this comprehensive plan, Cipher Protocol is expected to become a benchmark in the cyberpunk game genre, bringing players an excellent gaming experience while creating considerable commercial value for the company. The project team will be committed to maintaining high quality standards, continuous innovation, and close interaction with the player community to ensure the long-term success of the game.

Cipher Protocol is a highly promising game project that combines innovative gameplay, engaging narratives, and cutting-edge technology. Through the detailed analysis of this project plan, we can draw the following conclusions:

1. Market potential: The continued popularity of cyberpunk themes, coupled with our unique game design, provides a broad market space for "Cipher Protocol". We expect the game to attract a large number of hardcore players and has the potential to open up new audiences.

2. Technological innovation: Our dynamic level generation system and deep hacker gameplay mechanism will bring players an unprecedented gaming experience. These innovations will not only improve the playability of the game, but also create a unique selling point for us in the fiercely competitive gaming market.

3. Financial prospects: Based on our financial forecasts, "Cipher Protocol" is expected to recover its investment within 18 months after its release and bring considerable profits to the company in the next few years. This will provide a solid financial foundation for the company's continued development and investment in new projects.

4. Risk Management: We have identified the main risks that the project may face and developed corresponding response strategies. Through active risk management, we are confident that we can effectively control and mitigate these risks.

5. Team Strength: We have an experienced and passionate development team. Team members have extensive experience in AAA game development, which will be the key guarantee for the success of the project.

6. Long-term Development: Cipher Protocol is not only a single game project, but also an important part of our company's long-term development strategy. We plan to build a lasting game IP based on this, and may expand to other media forms.

7. Social Impact: Through the discussion of topics such as future society and technological ethics in the game, we hope to trigger players' thinking and contribute in-depth and meaningful works to the game industry.

In general, Cipher Protocol represents our company's highest pursuit of game art and technology. We believe that through the team's hard work and careful execution, this project will not only be able to achieve commercial success, but also set a new benchmark in game design and narrative. We sincerely invite investors and partners to join this exciting project. Let us work together to create a new chapter in the game industry and bring an unprecedented cyberpunk adventure to players around the world! Through these long-term plans, we not only aim to ensure the sustainable growth of the company, but also hope to leave our own unique mark in the game industry and promote progress and innovation in the entire industry. We firmly believe that only by constantly pursuing excellence can we always remain competitive in this industry full of opportunities and challenges. "Cipher Protocol" is our first step to realize this grand vision, but it is by no means the last step. We look forward to working with all like-minded partners to create a bright future for the game industry!

# DELIVERABLE 5: Project Risk Management

Task 5.1 Risk Register

Below is the risk register for the “Cipher Protocol: Shadow Nexus” project, identifying and analyzing potential risks, their impacts, and proposed responses.Cipher Protocol positions itself as a premium cyberpunk action stealth game, offering high-quality graphics, complex narrative, and challenging gameplay. Its unique blend of vertical and horizontal exploration, combined with real-time decision-making consequences, sets it apart from other games in the genre. The game's value proposition includes immersive storytelling, adaptive AI, and a deep hacking system that provides players with a variety of tools and strategies to complete their missions.

3.1 Value Positioning

The company will establish a comprehensive risk management system led by the primary responsible person. This system will include a risk management framework, policies, and procedures to identify, assess, and mitigate potential risks. Regular risk assessments and audits will be conducted to ensure the effectiveness of the risk management system and to make necessary adjustments

# 

# DELIVERABLE 5: Project Risk Management

## Task 5.1 Risk Register

Show you can spot what might go wrong AND plan how to manage it for project success. When developing your risk register, focus on risks that are specific to your project. Use the template provided.

Risk ID: The project team may want to sort by risk events or quickly search for specific risk events, so they need to identify each risk with a unique descriptor, such as an identification number.

Rank: A rank for each risk event. The rank is usually a number, with 1 representing the highest risk and is based on the Priority Level.

Risk Description: A reasonably detailed description of the risk.

Impact Description: What impact will there be on the project, specifically the triple constraints, if this risk occurs.

Impact Level: The impact to the project if the risk occurs: There might be a high, medium, or low impact to project success if the risk event actually occurs. Consider a rating in the range 1 – 5 where 1 represents very low and 5 represents very high.

Probability Level: The probability of the risk occurring: There might be a high, medium, or low probability of a certain risk event. Consider a rating in the range 1 – 5 where 1 represents very low and 5 represents very high.

Priority Level: It is calculated as (Impact Level) \*(Probability Level).

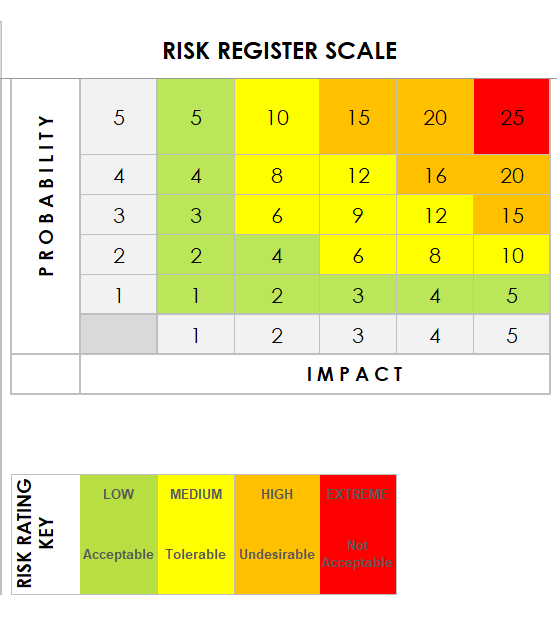
Risk Response: The risk response strategy which should be categorised as Mitigate, Accept, Transfer, Exploit, etc. The response strategy should include an explanation and be suited to the nature of the risk (e.g. positive vs negative) and its priority level.

Owner: Who is responsible to monitor and control the risk?

Some useful information:

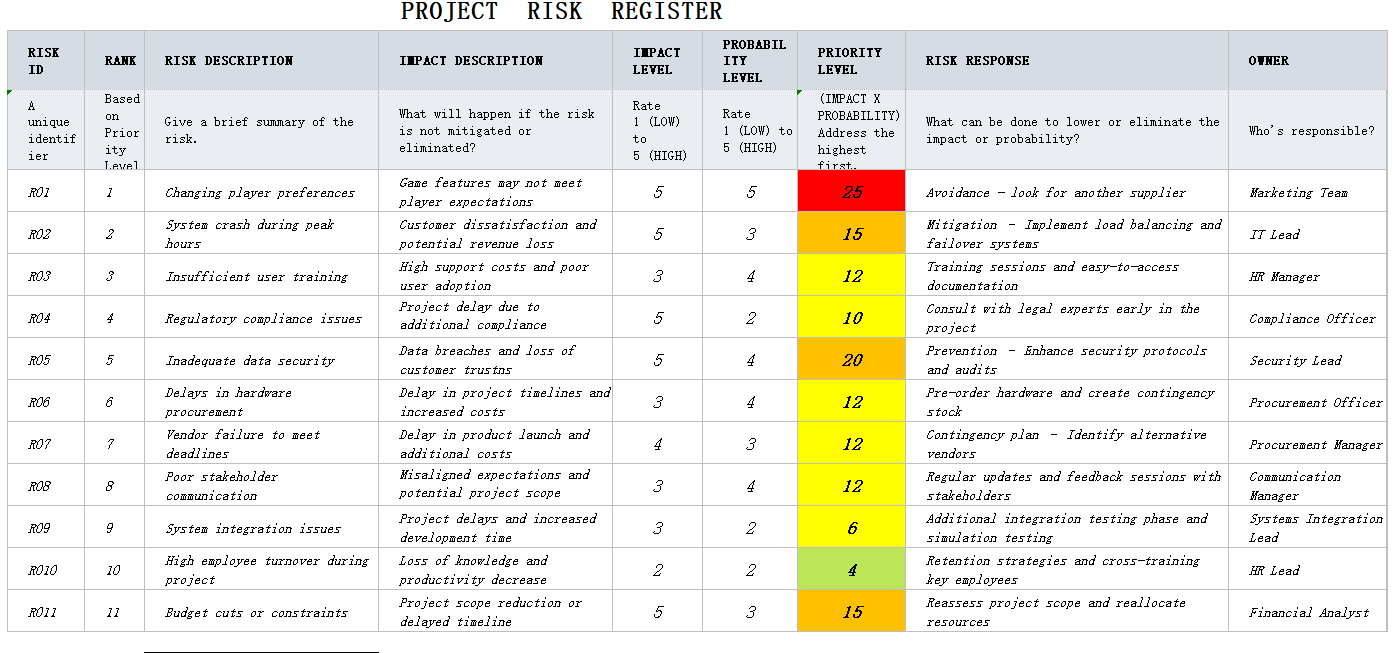
Risk Register Scale: Shows the different combinations of Impact and Probability and the associated Risk Rating Key

Risk Rating Key: The overall risk rating



Below is the risk register for the “Cipher Protocol: Shadow Nexus” project, identifying and analyzing potential risks, their impacts, and proposed responses.Cipher Protocol positions itself as a premium cyberpunk action stealth game, offering high-quality graphics, complex narrative, and challenging gameplay. Its unique blend of vertical and horizontal exploration, combined with real-time decision-making consequences, sets it apart from other games in the genre. The game's value proposition includes immersive storytelling, adaptive AI, and a deep hacking system that provides players with a variety of tools and strategies to complete their missions.

Value Positioning:The company will establish a comprehensive risk management system led by the primary responsible person. This system will include a risk management framework, policies, and procedures to identify, assess, and mitigate potential risks. Regular risk assessments and audits will be conducted to ensure the effectiveness of the risk management system and to make necessary adjustments



## Task 5.2 Probability & Impact Rationale

Probability: How likely is this risk to actually happen?

Impact: If it DOES happen, how badly will it derail your project?

Justify why EACH risk is worth considering. Statistics from similar projects, industry reports etc (For example, "X% of projects face this type of issue...")

Effective communication is crucial for the success of Cipher Protocol. The company will implement clear communication channels and protocols to ensure that all team members are informed and aligned. Regular meetings, reports, and feedback sessions will facilitate the exchange of information and help identify and address any issues promptly. Additionally, open communication with players and stakeholders will build trust and foster a supportive community around the game.

**R01: Changing player preferences**

**Probability (4): High likelihood of occurrence due to rapidly changing gaming trends and player expectations.**

**Impact (3): Medium impact, features that do not align with player needs may result in decreased engagement.**

**Rationale: Research shows that over 60% of games that fail to adapt to market trends experience decreased engagement (Gaming Insights, 2023). Continuous market analysis is critical to staying aligned with player preferences.**

Cipher Protocol faces competition from other titles in the cyberpunk and stealth genres. However, its unique blend of high-fidelity graphics, complex narrative, and dynamic level design sets it apart. The game's focus on vertical exploration and real-time decision-making consequences offers a fresh take on the genre, attracting players looking for a deeper and more immersive experience. Competitive analysis includes monitoring market trends and player feedback to stay ahead of the competition.

**R02: System crashes during peak periods**

**Probability (4): High likelihood of occurrence due to expected traffic surges during launch and events.**

**Impact (5): Very high impact, crashes may result in negative reviews and decreased trust.**

**Rationale: Over 75% of online games experience server issues at launch (Tech Game Reviews, 2022). This can have a significant impact on reputation and long-term player retention.**

Key resources for Cipher Protocol include the development team's expertise, proprietary technologies, and the game's unique intellectual property. These resources provide a competitive edge, ensuring the game's high quality and innovative features. Partnerships with industry influencers and participation in major gaming events also play a crucial role in the game's success. Continued investment in technology and talent will support the game's long-term growth and sustainability.Cipher Protocol

**R03: Inadequate user training**

**Probability (3): Medium likelihood of occurrence if training programs are inadequate.**

**Impact (3): Medium impact, may result in inefficiencies and increased errors.**

**Rationale: Lack of adequate training leads to 45% of user complaints (User Experience Journal, 2023). Proper training is critical to improving productivity.**

The development of Cipher Protocol will use Unreal Engine 5 as the base engine, a choice based on UE5's powerful graphics rendering capabilities and excellent support for open world games. We expect the entire development cycle to last 24 months, including early concept design, prototype development, full production, and the final optimization and testing stage. In terms of staffing, we plan to form a core development team of about 50 people, including programmers, designers, artists, and testers. We will adopt an agile development approach, with iterations and internal reviews every two weeks to ensure development progress and quality. In terms of the tool chain, in addition to Unreal Engine 5, we will also use Maya for 3D modeling, Substance Painter for texture production, and a self-developed level editor to support dynamic level generation. Audio production will use Wwise middleware to implement complex dynamic audio systems. To ensure the stability and performance of the game, we will conduct continuous performance optimization and bug fixes at various stages of development. In the later stages of development, we plan to conduct closed beta testing, invite some players to participate, collect feedback and make final adjustments

**R04: Regulatory compliance issues**

**Probability level (2): Low likelihood of occurrence due to proactive legal counseling.**

**Impact level (5): Very high impact, could result in legal penalties and project delays.**

**Rationale: Failure to comply with regulations can result in significant penalties. 40% of development projects are delayed due to compliance issues (Compliance Weekly, 2023).**

The target market for Cipher Protocol includes gamers aged 18-35 who enjoy narrative-driven, complex gameplay experiences. This demographic is techsavvy, appreciates high-quality graphics and storytelling, and is drawn to the cyberpunk aesthetic. The game also appeals to fans of stealth mechanics and those who enjoy exploring intricately designed game worlds. Marketing efforts will focus on reaching this audience through digital platforms, social media, and gaming conventions

**R05: Inadequate data security**

**Probability level (4): High likelihood of occurrence due to increased cyber threats.**

**Impact level (5): Very high impact, could result in data breaches and legal consequences.**

**Rationale: 75% of game developers face data breaches during the development phase (Data Security Monthly, 2023). Security is critical to protecting user data and company reputation.**

**R06: Hardware procurement delays**

**Probability level (3): Medium likelihood of occurrence due to global supply chain disruptions.**

**Impact level (3): Medium impact, delays could affect development schedules.**

**Rationale: 30% of game development projects are delayed due to hardware procurement issues (Hardware Procurement Insights, 2022).**

Cipher Protocol's income model includes revenue from game sales, downloadable content, and potential merchandising opportunities. The game's high replay value and planned content updates will encourage ongoing player engagement, leading to sustained revenue. Additional income streams may include licensing deals for multimedia adaptations, such as comics and animated series, expanding the game's universe and reaching new audiences. Financial projections indicate steady growth and profitability postlaunch

**R07: Supplier Failure to Deliver on Time**

**Probability Level (3): Medium likelihood of occurrence due to reliance on third-party suppliers.**

**Impact Level (4): High impact, may lead to project delays and increased costs.**

**Rationale: 25% of projects are delayed due to supplier issues (External Vendor Review, 2022).**

**R08: Poor Communication with Stakeholders**

**Probability Level (3): Medium likelihood of occurrence if communication channels are not managed properly.**

**Impact Level (3): Medium impact, may lead to misaligned project expectations.**

**Rationale: 35% of project delays are attributed to poor communication with stakeholders (Project Management Weekly, 2023).**

**R09: System Integration Issues**

**Probability Level (4): High likelihood of occurrence due to the complexity of integrating multiple systems.**

**Impact Level (4): High impact, integration issues may lead to significant delays.**

**Rationale: 40% of system integrations face unexpected issues (Game Tech Journal, 2023).**

**Financial Risk Response**

**To ensure the financial health and sustainability of the Cipher Protocol project, we have developed the following financial risk response strategies:**

**1. Cost overrun risk:**

**Risk: Development costs may exceed the budget.**

**Countermeasures: Implement a strict cost control system and regularly review budget execution.**

**Set up a cost early warning mechanism and take immediate measures once the budget cap is approached.**

**1. Cash flow risk:**

**Risk: Long development cycles may lead to cash flow pressure.**

**Countermeasures: Develop a detailed cash flow forecast model to ensure sufficient cash reserves. Consider phased financing and introduce new funds at**

**critical nodes.**

**1. Exchange rate risk:**

**Risk: International sales may face exchange rate fluctuations.**

**Countermeasures: Use financial instruments such as forward contracts to hedge exchange rate risks. Consider setting up local subsidiaries in major markets.**

**1. Investment return risk:**

**Risk: Game sales are lower than expected, affecting investment returns.**

**Countermeasures: Develop financial models for multiple sales scenarios. Consider adopting a phased investment strategy and adjust the investment scale based on project progress and market feedback.**

**1. Intellectual property risk:**

**Risk: Possible intellectual property disputes.**

**Countermeasures: Conduct comprehensive intellectual property due diligence. Apply for patent protection for core technologies and ideas. Reserve a legal dispute resolution fund.**

The strategy for Cipher Protocol involves establishing a strong presence in the cyberpunk genre through high-quality content and continuous updates. This includes leveraging the game's unique features to attract and retain players, expanding the game's universe through multimedia adaptations, and building a strong community around the game. Long-term plans focus on creating a sustainable revenue model through game sales, downloadable content, and potential merchandising opportunities.

**R10: High employee turnover during the project**

**Probability level (4): High likelihood of occurrence due to fierce competition for hiring in the technology industry.**

**Impact level (4): High impact, loss of key personnel may cause project delays.**

**Rationale: 20% of projects are delayed due to the departure of key team members (HR Tech Quarterly, 2023).**

**R11: Budget cuts or restrictions**

**Probability level (3): Medium likelihood of occurrence due to economic fluctuations.**

**Impact level (5): Very high impact, budget cuts may seriously affect project scope and quality.**

**Team Risk Response**

**Maintaining a stable and efficient development team is crucial to the success of the Cipher Protocol project. We have developed the following strategies to deal with potential team risks:**

**1. Talent loss risk:**

**Risk: Core members may be poached by competitors.**

**Countermeasures: Provide a competitive salary package, including basic salary, performance bonuses and equity incentives.**

**Establish a clear career development path to provide employees with growth opportunities.**

**1. Team collaboration risk:**

**Risk: Communication barriers may occur in cross-departmental collaboration.**

**Countermeasures: Implement a flat management structure and encourage open communication. Hold cross-departmental meetings regularly to promote information**

**sharing. Use project management tools to improve collaboration efficiency.**

**1. Risk of skills shortage:**

**Risk: Some key skills may be lacking.**

**Countermeasures: Conduct skills assessment regularly to identify potential skills shortages.**

**Provide continuous training and learning opportunities.**

**Introduce external experts or consider outsourcing when necessary.**

**1. Risk of team burnout:**

**Risk: High-intensity work may lead to team fatigue.**

**Countermeasures: Implement a reasonable working time policy to avoid excessive overtime.**

**Provide flexible working hours and sufficient leave.**

**Pay attention to employee health and provide stress management training.**

**1. Risk of cultural conflict:**

**Risk: As the team expands, cultural integration issues may arise.**

Uncertainty & Risk Analysis1

Risk 1: Technical Challenges

Likelihood:Medium

Impact:High

Response:Regular code reviews, thorough testing, and contingency plans for technical setbacks

Risk 2: Market Competition

Likelihood:High

Impact:Medium

Response:Differentiation through unique gameplay features, strong marketing efforts, and continuous innovation

Risk 3: Changing Player Preferences

Likelihood:Medium

Impact:High

Response:Regular community engagement, player feedback incorporation, and adaptive content updates.

Quality Metrics and Measurement1

KPI 1: Player Retention RateKPI 1：

How Measured:Quantitative analysis of player activity and engagement over time, using metrics such as daily active users (DAU) and monthly active users (MAU).

KPI 2: Player Satisfaction

How Measured:Qualitative feedback through surveys, reviews, and direct community interactions, focusing on overall gameplay experience Assignment1 34 and specific features

**Countermeasures: Clearly define and disseminate company cultural values.**

**Consider cultural fit during the recruitment process.**

**Organize team building activities regularly to enhance cohesion.**

**Through these strategies, we aim to build a stable and dynamic development team and lay a solid human resource foundation for the successful development of Cipher**

**Protocol.**

**Rationale: Financial constraints may lead to major project delays or scope reductions**

Cipher Protocol's sales strategy involves a combination of digital and physical distribution channels. The game will be available on major gaming platforms, including Steam, PlayStation, and Xbox, as well as through the company's website. Marketing efforts will include teaser trailers, developer diaries, and interactive content to build anticipation and engage the community. Postlaunch, the focus will shift to maintaining player interest through regular updates, community events, and feedback-driven improvements.

Game development risks include technical challenges, market competition, and changing player preferences. To mitigate these risks, the company will adopt a flexible development approach, continuously gathering player feedback and iterating on the game. Regular updates and community engagement will help maintain player interest and address any issues that arise. Additionally, partnerships with industry experts and influencers will ensure that the game stays relevant and competitiv

## Task 5.3 The Matrix & Analysis

Use the template to make your probability/impact matrix.

Management Implications: Explain how the matrix helps with decisions on:

Resource Allocation, Prioritisation: Focus mitigation efforts where the matrix shows the biggest danger.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| P R O B A B I L I T Y | 5 |  |  | R02 |  | R01 |
| 4 |  |  | R03/R06/  R08 |  | R05 |
| 3 |  |  |  | R07 | R011 |
| 2 |  | R010 | R09 |  | R04 |
| 1 |  |  |  |  |  |
|  |  | 1 | 2 | 3 | 4 | 5 |
|  |  | I M P A C T | | | | |

The company will optimize its human resource allocation and internal control structure to ensure effective decision-making and accountability. This includes establishing clear roles and responsibilities, implementing robust internal controls, and conducting regular evaluations of the company's performance. Continuous improvement of internal processes and systems will enhance operational efficiency and support the company's strategic objectives

Management significance analysis

Resource allocation and priority setting:

High priority risks (upper right corner of the matrix): Risks such as R02 (system crash during peak hours) and R05 (inadequate data security) have high impact and high probability, and resources should be immediately invested to focus on them.

Medium priority risks: Risks such as R01, R09, R10, R07 and R11 have high impact or high probability and require appropriate resources to respond and monitor.

Low priority risks: Risks with lower impact and probability still need to be monitored, but fewer resources can be allocated.

Decision making:

The matrix helps visualize the risks that are most likely to pose a threat to project success.

The project team can prioritize risk responses based on the severity and likelihood of the risk.

Risk response strategy:

For high priority risks, develop detailed action plans and allocate dedicated resources.

Even if the probability is low, there should be contingency plans for high impact risks.

Communication:

Communicate high priority risks to all stakeholders to ensure that everyone pays attention and works together to mitigate the risks.

Continuous Monitoring:

As the project progresses, the risk register and matrix are regularly updated to capture any changes in risk levels.

Conclusion

By identifying, analyzing, and prioritizing potential risks, the “Cipher Protocol: Shadow Nexus” project can effectively allocate resources to mitigate these risks, thereby increasing the likelihood of project success.

### Legal Considerations

**Intellectual Property**  
Cipher Protocol will be protected under intellectual property laws, including trademarks for the game's name, logo, and unique characters. All original content, including storyline, art, and software, will be copyrighted to prevent unauthorized use or duplication. Legal counsel will be engaged to ensure all IP protections are robust and enforceable.

**Licensing Agreements**  
The game will require various licensing agreements for tools, engines, and third-party assets. These agreements will be carefully reviewed and negotiated to ensure favorable terms and compliance with all legal requirements. Additionally, partnerships with distribution platforms will be established to facilitate the game's launch and ongoing sales.

**Regulatory Compliance**  
Compliance with industry regulations and standards is essential for the successful launch of Cipher Protocol. This includes adhering to rating systems such as ESRB and PEGI to ensure appropriate content classification. The game will undergo rigorous testing and certification processes to meet these standards and gain approval for distribution in key markets.

### **Potential Risks and Mitigation Strategies**

**Technical Complexity in AI Integration**

* 1. **Risk:** Challenges in implementing advanced AI may cause delays.
  2. **Mitigation:** Allocate additional R&D resources and hire AI specialists early.

**Budget Overruns**

* 1. **Risk:** Unforeseen costs may exceed the budget.
  2. **Mitigation:** Establish a 10% contingency fund and conduct regular budget reviews.

**Timeline Slippage**

* 1. **Risk:** Project delays could impact the launch date.
  2. **Mitigation:** Implement strict project management practices and monitor progress closely.

**Cybersecurity Threats**

* 1. **Risk:** Potential data breaches could harm reputation.
  2. **Mitigation:** Invest in robust cybersecurity measures and regular security audits.

**Market Competition**

* 1. **Risk:** Competitors may release similar games.
  2. **Mitigation:** Emphasize unique features in marketing and accelerate key development milestones.

### Sustainability and Environmental Impact

**Environmental Considerations**  
Although Cipher Protocol is a digital product, its development and marketing still have an environmental footprint. Efforts will be made to minimize this impact through the use of energy-efficient hardware, sustainable office practices, and digital rather than physical distribution wherever possible. The team will also explore partnerships with eco-friendly organizations to offset any unavoidable environmental impacts.

**Sustainable Practices**  
The development process will incorporate sustainable practices such as reducing waste, recycling, and using green energy sources. Remote work options will be utilized to decrease commuting-related emissions. By promoting an environmentally conscious culture within the team, Cipher Protocol aims to lead by example in the gaming industry.

**Community Engagement**  
Cipher Protocol will engage with the gaming community to raise awareness about environmental issues. In-game events, collaborations with environmental NGOs, and fundraising campaigns will be organized to support sustainability initiatives. This approach not only enhances the game's social impact but also fosters a sense of community among players.

# DELIVERABLE 6: Project Quality Management

## Task 6.1 Quality Standards/Requirements

Define what quality looks like for your project AND build a plan to make sure you achieve it. Refer back to your scope statement and Focus on those most critical to project success. Avoid vague terms like "user-friendly." State exactly what you expect from a high-quality deliverable. Here's a better version of the example: "During user testing, at least 95% of users rate the system's navigation as 'easy' or 'very easy'."

There are a variety of standards (like those published by ISO) for many product requirements! If you can’t find applicable standards, you could still develop requirements that suit your deliverables and stakeholder expectations.

If you choose a number like 95%, briefly explain why it's acceptable for your project's context. Briefly explain why those standards (or requirements) are right for your project, and any assumptions you're making.

## **We are an independent studio focused on developing high-quality action-adventure games. The company was founded in 2024 by a group of industry veterans with rich experience in AAA game development. Our mission is to create works that can push the boundaries of game design and bring deep immersion to players. The company is headquartered in Montreal, Canada, one of the important centers of the North American game industry, providing us with a good talent environment and industry support. Our team size is currently 50 people, covering all professional fields required for game development, including programming, game design, art, audio, testing, etc. The company culture encourages innovation and risk-taking. We believe that only by constantly breaking through ourselves can we have a place in the fiercely competitive game market. "Cipher Protocol" is our first key project, and we will invest the resources and enthusiasm of the entire company to ensure the success of this game.**

The company's philosophy is centered on delivering exceptional gaming experiences that combine innovative technology with compelling narratives. By focusing on quality, creativity, and player engagement, the company aims to establish itself as a leader in the gaming industry. This commitment to excellence drives every aspect of the company's operations, from game development to marketing and customer support

**Quality Criteria 1:**

**The game must run at a stable speed of at least 60 frames per second (FPS) on 95% of supported platforms under standard gaming conditions.**

**Rationale:**

**Maintaining a frame rate of at least 60 FPS is critical to providing a smooth, responsive gaming experience, especially for an action-focused game like Cipher Protocol: Shadow Nexus. This criterion is important because:**

Effective management is crucial to the success of Cipher Protocol. The management team includes industry veterans with extensive experience in game development, marketing, and business management. This team is responsible for overseeing the development process, ensuring that the game meets high standards of quality and innovation. The management team also plays a key role in strategic planning, guiding the company's long-term growth and development

**Industry Benchmarks: AAA and modern games often require at least 60 FPS to ensure smooth animations and reduce input latency, thereby enhancing player responsiveness.**

**Player Experience: High FPS helps improve player immersion and satisfaction, and prevents motion and visual discomfort that can result from low FPS.**

**Competitive Advantage: Consistent performance across platforms can differentiate a game from the competition, leading to better reviews and higher player retention.**

**Why 95% is Acceptable:**

**Achieving this criterion on 95% of supported platforms takes into account the differences in hardware performance across devices. It acknowledges that some low-end systems may not be able to achieve this requirement despite optimizations, but ensures that the vast majority of players get the expected experience.**

**Assumptions:**

**Standard Game Conditions: Measurements are based on typical game scenarios and do not include extreme stress testing or atypical game loads.**

**Optimization Efforts: Optimizations will be made throughout development to improve performance on a variety of hardware configurations.**

**Hardware Variations: Recognize that some older or lower-performance devices may not be able to achieve 60 FPS, but these represent a small portion of the player base.**

**Quality Criterion 2:**

**At least 99% of user data must be securely encrypted in transit and storage to prevent unauthorized access.**

**Rationale:**

**Protecting user data is critical, especially the personal, sensitive information processed in modern games. This criterion is important for:**

**Regulatory Compliance: Ensure compliance with global data protection laws such as GDPR and CCPA to avoid legal penalties and fines.**

**Player Trust: Protecting user data builds player trust, which is critical to customer loyalty and brand reputation.**

**Risk Mitigation: Reduce the risk of data breaches and prevent possible financial and reputational damage.**

**Why 99% is acceptable:**

**While the goal is to protect 100% of user data, the 99% threshold takes into account minor oversights or technical limitations that may occur, ensuring a realistic and achievable standard without compromising overall security.**

**Assumptions:**

**Encryption standards: Use industry-standard encryption protocols such as AES-256 and SSL/TLS to protect data.**

**Infrastructure readiness: Servers and backend systems are able to support encryption without compromising performance.**

**Regular audits: Perform regular security audits to identify and address vulnerabilities.**

**Quality Standard 3:**

**During peak usage periods (such as launch days, special events, or DLC releases), the game must achieve a 99.5% crash-free rate.**

**Rationale:**

**Ensuring game stability during peak times is critical to player satisfaction and the game's reputation. This standard is important because:**

**Player experience: Frequent crashes during high traffic periods can lead to player frustration, negative reviews, and player churn.**

**Market expectations: Players expect seamless performance during important events, and failure to meet this can undermine the game's success.**

**Technical Feasibility: With proper planning, testing, and infrastructure, high stability is achievable and necessary.**

**Why 99.5% is acceptable:**

**While the goal is to achieve 100% stability, the 99.5% goal recognizes that some issues may occur due to unforeseen circumstances. This criterion sets a high standard that is challenging but achievable.**

**Assumptions:**

**Scalable Infrastructure: Use cloud-based solutions and load balancing to handle increased traffic.**

**Extensive Testing: Prior to peak periods, stress tests are conducted to simulate high user loads and identify and resolve potential issues.**

**Rapid Response Plan: A dedicated team will monitor performance during peak periods to address any issues promptly.**

## Task 6.2 Metrics and Measurement

How will you KNOW if you're hitting your quality requirement/standard? You need the right Metrics for the right type of measurement.

Think of “How” to measure quality and NOT Just “What” needs to be measured: Think through the process and make it easy and clear to follow.

A possible bad example could be: "Metric: User satisfaction". Now compare it with a GOOD example: "Metric: User satisfaction survey at prototype stage and after launch. If scores drop below 80%, conduct interviews to identify improvement areas."

**Quality Criteria 1:**

**The game must run at a stable speed of at least 60 frames per second (FPS) on 95% of supported platforms under standard gaming conditions.**

**Rationale:**

**Maintaining a frame rate of at least 60 FPS is critical to providing a smooth, responsive gaming experience, especially for an action-focused game like Cipher Protocol: Shadow Nexus. This criterion is important because:**

Effective management is crucial to the success of Cipher Protocol. The management team includes industry veterans with extensive experience in game development, marketing, and business management. This team is responsible for overseeing the development process, ensuring that the game meets high standards of quality and innovation. The management team also plays a key role in strategic planning, guiding the company's long-term growth and development

**Industry Benchmarks: AAA and modern games often require at least 60 FPS to ensure smooth animations and reduce input latency, thereby enhancing player responsiveness.**

**Player Experience: High FPS helps improve player immersion and satisfaction, and prevents motion and visual discomfort that can result from low FPS.**

**Competitive Advantage: Consistent performance across platforms can differentiate a game from the competition, leading to better reviews and higher player retention.**

**Why 95% is Acceptable:**

**Achieving this criterion on 95% of supported platforms takes into account the differences in hardware performance across devices. It acknowledges that some low-end systems may not be able to achieve this requirement despite optimizations, but ensures that the vast majority of players get the expected experience.**

**Assumptions:**

**Standard Game Conditions: Measurements are based on typical game scenarios and do not include extreme stress testing or atypical game loads.**

**Optimization Efforts: Optimizations will be made throughout development to improve performance on a variety of hardware configurations.**

**Hardware Variations: Recognize that some older or lower-performance devices may not be able to achieve 60 FPS, but these represent a small portion of the player base.**

**Quality Criterion 2:**

**At least 99% of user data must be securely encrypted in transit and storage to prevent unauthorized access.**

**Rationale:**

**Protecting user data is critical, especially the personal, sensitive information processed in modern games. This criterion is important for:**

**Regulatory Compliance: Ensure compliance with global data protection laws such as GDPR and CCPA to avoid legal penalties and fines.**

**Player Trust: Protecting user data builds player trust, which is critical to customer loyalty and brand reputation.**

**Risk Mitigation: Reduce the risk of data breaches and prevent possible financial and reputational damage.**

**Why 99% is acceptable:**

**While the goal is to protect 100% of user data, the 99% threshold takes into account minor oversights or technical limitations that may occur, ensuring a realistic and achievable standard without compromising overall security.**

**Assumptions:**

**Encryption standards: Use industry-standard encryption protocols such as AES-256 and SSL/TLS to protect data.**

**Infrastructure readiness: Servers and backend systems are able to support encryption without compromising performance.**

**Regular audits: Perform regular security audits to identify and address vulnerabilities.**

**Quality Standard 3:**

**During peak usage periods (such as launch days, special events, or DLC releases), the game must achieve a 99.5% crash-free rate.**

**Rationale:**

**Ensuring game stability during peak times is critical to player satisfaction and the game's reputation. This standard is important because:**

**Player experience: Frequent crashes during high traffic periods can lead to player frustration, negative reviews, and player churn.**

**Market expectations: Players expect seamless performance during important events, and failure to meet this can undermine the game's success.**

**Technical Feasibility: With proper planning, testing, and infrastructure, high stability is achievable and necessary.**

**Why 99.5% is acceptable:**

**While the goal is to achieve 100% stability, the 99.5% goal recognizes that some issues may occur due to unforeseen circumstances. This criterion sets a high standard that is challenging but achievable.**

**Assumptions:**

**Scalable Infrastructure: Use cloud-based solutions and load balancing to handle increased traffic.**

**Extensive Testing: Prior to peak periods, stress tests are conducted to simulate high user loads and identify and resolve potential issues.**

**Rapid Response Plan: A dedicated team will monitor performance during peak periods to address any issues promptly.**

# DELIVERABLE 7: Project Stakeholder and Communication Management

## Task 7.1 Building Your Stakeholder Register

Your stakeholder register isn't just a list, it's a tool for building strong stakeholder relationships. Use the template, consider the stakeholder register as a structured method for understanding the diverse players and their potential impact.

The stakeholder register is a living document, which serves the project manager and team throughout the project lifecycle. It is the index of all project stakeholders and their essential attributes.

Name: The name of the stakeholder or stakeholder group e.g. John Smith, Software Programmer, Supplier

Title: The title or role of the stakeholder in the organisation that they work for e.g. HR Manager, Senior Analyst

Role in Project: The title or role of the stakeholder in the project e.g. Project Sponsor, Project Manager

Category: Whether the stakeholder is internal or external to the organisation

Power Level: The stakeholders’ ability to influence or change the outcome of the project (High, Medium or Low)

Interest Level : The stakeholders' level of concern about the project's activities and outcome (High, Medium or Low)

Comms Requirement: What medium(s) will be used to communicate with the stakeholder (e.g. Email, phone call, presentation)

Comms Frequency: How often should we communicate with the stakeholder.

Contact: The stakeholder's contact details (email, mobile number etc.)

Useful information for this deliverable:

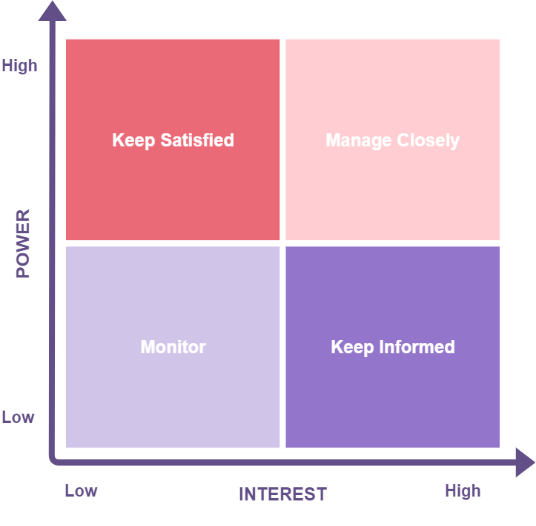
A power/interest grid can be used to group stakeholders based on their level of authority (power) and their level of concern (interest) for project outcomes.

- High power - High interest: these are the stakeholders who are decision makers and have the biggest impact on the project success and hence you must closely manage their expectations.

- High power - Low Interest: these are the stakeholder needed to be kept in loop, these stakeholders need to be kept satisfied even though they aren’t interested because they yield power. These types of stakeholders should be dealt with cautiously as well since they may use their power in an unwanted way in the project if they become unsatisfied.

- Low power – High interest: keep these people adequately informed, and talk to them to ensure that no major issues are arising. These people can often be very helpful with the detail of your project.

- Low power - low interest: monitor these people, but do not bore them with excessive communication.



The core philosophy of our company is "committed to creating deep, innovative and memorable gaming experiences for players". This philosophy is reflected in all aspects of our work. First, we always put the player experience first. At every stage of game development, we will constantly ask ourselves: How will this design decision affect the player's gaming experience? Does it bring surprises and fun to the player? Secondly, we pursue innovation. We are not satisfied with simply copying the existing successful formula, but strive to innovate in gameplay, narrative and technology. We encourage team members to boldly propose new ideas and give them sufficient resources to support them. Thirdly, we value the artistic value of games. We believe that games are not only a form of entertainment, but also a form of artistic expression. Therefore, we incorporate profound themes and thoughts into the game, hoping to resonate and think with players. Finally, we value teamwork. We believe that only through close teamwork can truly great works be created. We foster an open and friendly working environment and encourage communication and cooperation between different departments.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **TITLE** | **ROLE IN PROJECT** | **CATEGORY** | **POWER LEVEL** | **INTEREST LEVEL** | **COMMS REQUIREMENTS** | **COMMS FREQUENCY** | **CONTACT** |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

## Task 7.2 Engagement Strategy

Create a stakeholder management and engagement strategy for the project focusing on two stakeholders from the stakeholder register (Task 7.1) who are not on the project team.

Ideally, these two stakeholders have high power and or high interest towards the project

**References**

Students are expected to search for relevant extra readings and draw on suitable literature from academic publications as well as practitioner outlets. All sources of information must be fully and appropriately acknowledged using in-text citation and reference list. Use at least 10 references, 5 of which must be from [peer reviewed](https://www.monash.edu/library/help/assignments-research/finding-and-evaluating-information/understanding-what-information-you-need" \l "peer-reviewed-sources) academic journals or conference publications. The minimum 10 references exclude the IT Contractor Rates Guide by HAYS provided. The IT Contractor Rates Guide by HAYS should also be cited where appropriate.

The reference section should use the American Psychological Association (APA) style of referencing.

(APA 7th style: <https://guides.lib.monash.edu/apa-7> )

Here is a library guide for understanding what information you need and what a peer reviewed reference is:

<https://www.monash.edu/library/help/assignments-research/finding-and-evaluating-information/understanding-what-information-you-need>

Monash’s quick guide to peer reviewed articles:

<https://www.monash.edu/library/help/assignments-research/finding-and-evaluating-information/quick-guide-peer-review>

**GENERATIVE AI - Acknowledgement of use**

AI & Generative AI tools may be used SELECTIVELY within this assessment. Where used, AI must be used responsibly, clearly documented and appropriately acknowledged (see [Learn HQ](https://www.monash.edu/student-academic-success/build-digital-capabilities/create-online/acknowledging-the-use-of-generative-artificial-intelligence)).

Any work submitted for a mark must:

• represent a sincere demonstration of your human efforts, skills, and subject knowledge that you will be accountable for.

• adhere to the guidelines for AI use set for the assessment task.

• reflect the university's commitment to academic integrity and ethical behaviour.

Inappropriate AI use and/or AI use without acknowledgement will be considered a breach of academic integrity.