



MONTH October 29, 2024 Student ID and Full Name:33429472 Ziqi Pei Team number:603 Applied class:Applied Friday 5-7pm

# **Contents**

DELIVERABLE 1: Agile Project Foundations	3
Task 1.1 Project Vision and Initial Requirements	3
Task 1.2: Scrum Persona Development	10
Task 1.3 Journey Mapping	13
DELIVERABLE 2: Agile Planning and Sprint Allocation	15
Task 2.1 Product Backlog	15
Task 2.2 Strategic Sprint Allocation	19
Task 2.3 Sprint 1 Execution Plan	21
DELIVERABLE 3: Agile Reflection and Professional Development	28
Task 3.1: Reflection on Agile Game	29
Task 3.2: Personal Reflection and Career Development in Agile Roles	31
Team Presentation and Agile Artefacts	35
References	36
Generative AI - Acknowledgement of Use	36

# **Deliverable 1. Agile Project Foundations**

# Task 1.1: Project Vision and Initial Requirements

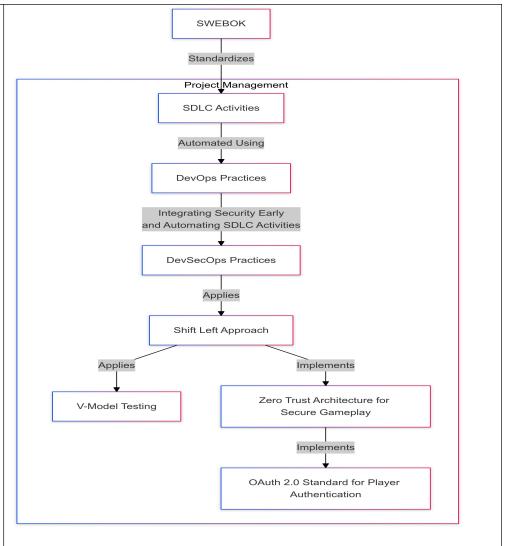
Problem	1. Report Purpose and Discussion:
	The cyberpunk game market currently lacks deeply immersive experiences where players can genuinely shape their environment and influence the storyline. Most games in the genre are static, providing limited replayability and predictable interactions, which fails to satisfy players seeking a personalized and evolving narrative. Cipher Protocol: Shadow Nexus addresses this gap by offering an interactive game world that adapts to players' choices in real-time, providing a unique and emotionally impactful experience with each playthrough. The game is designed for players who crave strategic depth, adaptive environments, and complex moral choices, ultimately delivering an innovative and unmatched gameplay experience that empowers players to forge their own path.
	2. Project Terms of Reference: 2.1 The Client's case story summary NexaForge Studios wants to utilize cutting-edge technology to deliver a compelling cyberpunk action stealth game with procedurally generated environments. The game needs to support real-time AI that reacts to player actions, dynamic level designs, and a system for player-driven narrative branching.
	2.2. PM methodology: The Agile methodology is an iterative, customer-focused project management strategy that enables rapid delivery and adaptation to change. Using Agile, the development team can adjust gameplay features, ensuring that player feedback and evolving gameplay mechanics are considered during every iteration. This approach facilitates continuous improvements and adaptive solutions, aligned with both short-term sprint goals and long-term project vision.
	Agile project management offers flexibility, making it particularly suitable for complex game development processes like Cipher Protocol: Shadow Nexus.
Objective	Cipher Protocol: Shadow Nexus aims to revolutionize the cyberpunk action-stealth gaming genre by placing players at the heart of a dynamic, evolving game world. The project strives to create an immersive

experience where every decision the player makes influences the game environment, storyline, and character progression. With procedural level generation, adaptive AI systems, and a sophisticated moral choice mechanism, our vision is to offer players an emotionally compelling and personalized gameplay journey that continuously adapts to their actions and decisions in real-time. The scope of this project includes creating a cross-platform game that engages players through a blend of stealth, action, and narrative-driven gameplay, while also offering post-launch content to maintain long-term player interest and community growth. Cipher Protocol: Shadow Nexus aligns with NexaForge Studios' strategic goals by fostering innovation, expanding market presence, and engaging a diverse, global player community.

Aligned with **NexaForge Studios'** strategic goals, **Cipher Protocol: Shadow Nexus** will not only enrich player experiences but also drive industry innovation by delivering cross-platform functionality and secure data management. Long-term player engagement is further enhanced through the incorporation of post-launch downloadable content (DLC). This project ultimately aims to attract a broad audience, foster a loyal player community, and provide stakeholders—players, developers, and the studio itself—with enhanced creativity, engagement, and a significant competitive edge.

The stakeholder management process will involve stakeholder analysis and engagement strategies, employing **Power/Influence and Interest grids** to assess their involvement. Ensuring timely communication with key stakeholders like project sponsors and team leads will be vital for achieving project success

Develop a personalized, engaging gameplay experience using dynamic level design, adaptive AI, and a moral choice system that provides multiple paths and impactful decisions, enhancing replayability and player retention (Jones & Taylor, 2022).



Impact

Cipher Protocol: Shadow Nexus stands out by delivering a deeply personalized, narrative-driven experience that adapts to each player's decisions. By blending procedural level design, adaptive AI, and a moral choice system, the game offers significant benefits, including enhanced replayability, strategic depth, and emotional engagement. Players will feel a heightened sense of agency, making each playthrough unique and tailored to their choices. NexaForge Studios aims to push the boundaries of interactive storytelling, thereby establishing new industry standards and fostering a strong player community through ongoing content updates and multiplayer support.

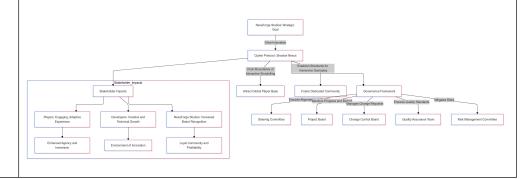
**Players**: They gain a more engaging, narrative-driven experience that adapts to their decisions, offering unique playthroughs and emotionally compelling narratives. This dynamic approach

enhances the sense of agency and deepens immersion.

**Developers**: By working with advanced game mechanics such as procedural level generation and adaptive AI, developers are encouraged to expand their creative and technical skills. The project fosters an environment where innovation is integral, enhancing overall development expertise.

**NexaForge Studios**: The studio benefits from increased brand recognition and differentiation in a competitive market. **Cipher Protocol** is positioned to create a loyal community through long-term engagement with post-launch downloadable content (DLC), ultimately driving profitability and establishing **NexaForge** as a leader in the cyberpunk action-stealth genre.

The governance framework is key to achieving these impacts, providing structured oversight to ensure alignment with **NexaForge's** vision and delivering a high-quality product that meets stakeholder expectations(Wright & Campbell, 2023).. Oversight bodies—including the Steering Committee, Project Board, Change Control Board, Quality Assurance Team, and Risk Management Committee—collaborate to ensure strategic alignment, high-quality development, effective change management, and proactive risk mitigation.



Goals	Benefit
	For players who enjoy strategic gameplay, this offers unique challenges and a personalized experience with each playthrough, increasing engagement and

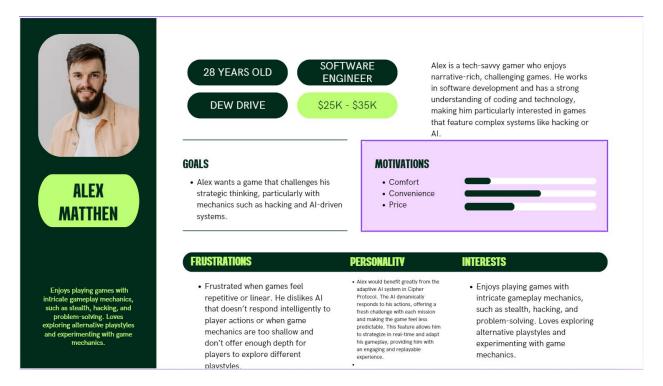
	replayability (Smith, 2021).
2. Adaptive AI dynamically responds to player actions, offering unique and evolving challenges.	For players seeking a challenging experience, this feature keeps gameplay fresh and unpredictable, making each session unique (Jones & Taylor, 2022).
3. Dynamic level generation based on player progress and choices ensures no two playthroughs are identical.	For players who value creativity and variability, this feature provides endless replayability and maintains engagement over time (Wright & Campbell, 2023).
4. Players' decisions directly impact the game's world and storyline, leading to multiple possible outcomes.	Story-driven players experience personalized, impactful narratives, increasing their emotional investment and desire to replay the game (Smith, 2021).
5. Incorporates adaptive stealth mechanics and intelligent enemy behaviors, allowing for strategic decision-making.	For players who prefer tactical and stealth-based gameplay, this feature provides an added layer of depth and challenge, enhancing the overall experience (Jones & Taylor, 2022).
6. Includes post-launch downloadable content (DLC) that introduces additional missions, characters, and storylines.	For long-term players, this ensures ongoing engagement and community growth by offering fresh content and extending the game's lifecycle (Wright & Campbell, 2023).
7. Provides intuitive, visually appealing, and cross-platform user interface (UI) consistency.	For players switching between devices, this ensures a seamless and satisfying experience across multiple platforms (Smith, 2021).
8. Robust development environment ensures stable workflows, including automated testing and Docker containerization.	For the development team, this reduces errors and downtime, allowing them to focus on delivering high-quality features efficiently (Jones & Taylor, 2022).
9. Provides scalable multiplayer support and server stability for high-concurrency environments.	For social and competitive players, this ensures smooth, lag-free multiplayer gameplay, enhancing the game's community-driven experience (Wright & Campbell, 2023).

10. Offers secure cloud save functionality to ensure safe, continuous access to player data across devices.	For players, this provides peace of mind that their progress is safe, allowing them to continue playing on multiple platforms without worry (Smith, 2021).
11. Implements advanced encryption for player data, ensuring privacy and security in all game interactions.	For privacy-conscious players, this provides confidence that their personal data is protected (Jones & Taylor, 2022).
12. Regular community events, challenges, and in-game competitions to foster a vibrant player community.	This creates a strong, loyal player base, promoting engagement and supporting long-term game success (Wright & Campbell, 2023).
13. Seamless stealth and combat integration allows players to fluidly switch between tactics based on playstyle.	For players who enjoy flexibility in their approach, this provides a dynamic and responsive gameplay experience (Smith, 2021).
14. Real-time feedback system for collecting and analyzing player input during gameplay.	For the development team, this ensures any gameplay issues or user experience problems are quickly identified and addressed, improving game quality (Jones & Taylor, 2022).
15. Automated testing ensures that each new feature is tested without disrupting existing functionality.	For developers and testers, this reduces the risk of introducing bugs and ensures stable releases (Wright & Campbell, 2023).
16. Comprehensive testing ensures the game runs smoothly across multiple platforms, enhancing accessibility and user retention.	For cross-platform players, this ensures a consistent, high-performance experience regardless of device (Smith, 2021).
17. A strong marketing strategy, including pre-launch promotions and partnerships with influencers.	For the marketing team, this ensures maximum visibility and hype leading up to the game's release, helping secure a strong player base (Jones & Taylor, 2022).
18. Post-launch support includes ongoing updates and downloadable content	For long-term players, this ensures ongoing engagement and a steady stream of new content, fostering community

(DLC) to maintain engagement.	growth (Wright & Campbell, 2023).	
19. Multiplayer and cooperative modes with scalable cloud infrastructure ensure smooth, real-time gameplay.	For multiplayer gamers, this supports high-volume interactions with minimal latency, ensuring smooth and engaging gameplay (Smith, 2021).	
20. High-performance optimization ensures a minimum of 60 FPS with quick load times across platforms like PC, PS5, and Xbox	<u> </u>	

# Task 1.2: Scrum Persona Development

Persona 1: Alex Matthen



# Description:

Alex is a 28-year-old software engineer with a passion for narrative-driven, challenging games. With a strong background in coding, he appreciates games that offer complex gameplay mechanics and strategic depth. His interest lies in games featuring hacking and AI-driven systems, as they allow him to leverage his technical skills and think critically.

#### Goals/Needs:

- (1)To find a game that challenges his strategic thinking and keeps him engaged with complex mechanics.
- (2) Seeks games that adapt to his playstyle, providing new challenges each time he plays.
- (3) Values replayability and games that reward creative problem-solving.

#### Frustrations/Pain Points:

(1) Frustrated with games that become repetitive or fail to challenge his skills.

- (2) Dislikes shallow AI that doesn't adapt to player choices, reducing the game's depth.
- (3) Finds it demotivating when games lack the flexibility for players to explore alternative playstyles.

#### Reflection:

Alex would benefit greatly from the adaptive AI in Cipher Protocol. The dynamic AI adapts to his actions, keeping missions fresh and challenging. This system allows Alex to continuously strategize, engage deeply with the game, and experiment with different approaches, catering to his desire for meaningful, replayable gameplay experiences.

Persona 2: Emily Chen



#### DESCRIPTION

Emily is a narrative-focused gamer who enjoys immersive worlds and deep storytelling. She values games that provide emotional experiences and meaningful player choices. She spends her free time playing role-playing games (RPGs) and writing about games on her personal blog.

#### PERSONAL CHARACTERISTICS

- · Down-to-earth
- Easy-going Reliable
- Inspiring
- · Problem solver

#### **HOBBIES AND INTERESTS**

· Emily loves exploring moral dilemmas in games and enjoys being able to make choices that have a significant impact on the storyline and the game world.

#### **FRUSTRATION**

Dislikes when games have superficial decision-making systems where choices don't

• She looks for games where her choices truly impact the game world or when narrative paths are too predictable.

#### **GOALS**

- Emily wants a game that offers rich storytelling and meaningful decisions.
- affect the story and the world, making her feel more connected to the characters and narrative

#### **CHALLENGES**

- To track her team's progress
- · To voice out her ideas
- · To stay connected

#### FEATURE -PERSONA

The Cipher Protocol moral choice system would provide Emily with exactly what she craves in a game: deep, meaningful decisions that influence the story's progression.

#### **NEEDS**

- Productivity tools
- Powerful messaging app · Access across devices

#### **SOURCES OF INFO**

- News
- Social media
- · Word of mouth

### Description:

Emily is a 32-year-old content writer and avid gamer who values games that offer immersive worlds and meaningful storytelling. She loves RPGs and spends her free time writing about games on her blog. She seeks emotional engagement and meaningful player choices, allowing her to shape the story's progression.

#### Goals/Needs:

- (1) Wants a game that prioritizes narrative depth, with choices that impact the storyline.
- (2)Looks for games where she feels connected to the characters and world.
- (3)Seeks a unique experience in each playthrough, where her decisions make a noticeable difference.

#### Frustrations/Pain Points:

- (1)Dislikes games with superficial decision-making systems that don't significantly alter the story.
- (2)Feels disappointed when narrative paths are predictable or lack meaningful consequences.
- (3)Struggles to stay engaged if the game's story doesn't allow for diverse choices that influence the game world.

#### Reflection:

The Cipher Protocol moral choice system resonates with Emily's gaming needs, as it offers her a chance to make impactful decisions that genuinely shape the story. This feature would allow Emily to feel a deeper connection to the game's characters and narrative, aligning with her desire for meaningful engagement.

Task 1.3 Journey Mapping

	Steps	Touchpoints	Painpoints	Ideal Journey Improvements
Stage 1: Awareness & Consideration	Alex hears about Cipher Protocol through online forums, developer blogs, and tech gaming communities. He is particularly intrigued by the Al- driven mechanics and strategic depth the game promises.	Online forums, gaming blogs, social media, and tech community discussions.	Alex is concerned about whether the Al will truly offer complex and reactive gameplay. The promotional content might not demonstrate how the Al adapts in real-time.	Offer tech-specific develop commentary or a gamepla demo that highlights how the adaptive AI enhances strate and depth in various game scenarios.
Stage 3. Engagement & Problem Solving	Alex visits the game's official site or reads a developer blog post to learn more about the game's Al systems and strategic gameplay mechanics.	Game website, blog posts, technical documentation, trailers.	Alex may find the information about Al and hacking mechanics lacking in technical depth, making it hard for him to gauge whether the gameplay aligns with his expectations.	Provide an in-depth article video that breaks down the A behavior in detail, demonstrating its adaptabili and how it reacts to player strategies.
Stage 3. Engagement & Problem Solving	Alex starts playing Cipher Protocol and experiments with the Al-driven challenges and hacking systems, testing their depth an mplexity.	curious, excited  In-gerne U, cking minigames, adaptive AI challenges.	Alex mey fi agt certain mechanics do not resct as dynamically as promised, leading to frustration if they feel predictable.	Improve the Al's responsiveness by providir feedback loops in the gam that show how it learns from player strategies. Allow for more variety in Al reaction and hacking utcomes.
	Alex evaluates whether the game's Al and hacking mechanics are challenging and	In-game decision-making	If the gameplay does not evolve in complexity or the Al	Introduce a dynamic difficul adjustment for advanced players like Alex, ensuring th
Stage 4. Decision Point	deep enough to maintain his interest. He is deciding whether to continue playing or recommend the game to his tech-savvy friends.	points, real-time challenges, level progression.	does not challenge him enough, Alex might feel the game becomes repetitive.	challenges and prevents th
	deep enough to maintain his interest. He is deciding whether to continue playing or recommend the game to his tech-savvy friends.	level progression.	Alex might feel the game becomes repetitive.	challenges and prevents th game from feeling repetitiv over time.
	deep enough to maintain his interest. He is deciding whether to continue playing or recommend the game to his		Alex might feel the game	the Al continues to offer fres challenges and prevents the game from feeling repetitive over time.  Ideal Journey Improvement:
	deep enough to maintain his interest. He is deciding whether to continue playing or recommend the game to his tech-savvy friends.	level progression.	Alex might feel the game becomes repetitive.	challenges and prevents th game from feeling repetitiv over time.  Ideal Journey Improvement  Provide interactive demo developer commentar explaining how moral chois shape the game. This will players like Emily visualize
Point  Stage 1: Awareness &	deep enough to maintain his interest. He is deciding whether to continue playing or recommend the game to his tech-savvy friends.  Step  Emily becomes aware of Cipher Protocol through gaming blogs,	Touchpoints  Social media ads, trailers,	Pain Points  Emily is unsure if the game's choices truly impact the narrative and the world, as trailers and reviews may lack	challenges and prevents th game from feeling repetitiv over time.  Ideal Journey Improvement  Provide interactive demo developer commentar explaining how moral choi shape the game. This will players like Emily visualize impactful their decisions w  Create a dedicated section the website or store page highlights and explains though visual examples at through visual examples.
Stage 1: Awareness & Consideration	deep enough to maintain his interest. He is deciding whether to continue playing or recommend the game to his tech-savvy friends.  Step  Emily becomes aware of Cipher Protocol through gaming blogs, social media and trailers. She's time the same of the first trailers of a digital storefront, looking for more detailed information about gameplay and decision-making mechanics.  Emily visits the game's website or a digital storefront, looking for more detailed information about gameplay and decision-making mechanics.	Touchpoints  Social media ads, trailers, gaming websites, blog reviews.  Game website, digital storefront, in-game demo, or walkthrough	Pain Points  Emily is unsure if the game's choices truly impact the narrative and the world, as trailers and reviews may lack detailed examples.  Emily may have trouble navigating to the right section that details the decision-making system. If the website doesn't clearly showcase this feature, she may feel unsure about the purchase.	challenges and prevents th game from feeling repetitiv over time.  Ideal Journey Improvement  Provide interactive demo developer commentar explaining how moral choi shape the game. This will players like Emily visualize impactful their decisions w  Create a dedicated sectio the website or store page highlights and explains t decision-making systet through visual examples testimonials from players developers.  Provide immediate visual
Stage 1: Awareness & Consideration	deep enough to maintain his interest. He is deciding whether to continue playing or recommend the game to his tech-savvy friends.  Step  Emily becomes aware of Cipher Protocol through gaming blogs, social media and trailers. She's  The first first first first for a digital storefront, looking for more detailed information about gamepley and decision-	Touchpoints  Social media ads, trailers, gaming websites, blog reviews.  Game website, digital storefront, in-game demo, or walkthrough videos.	Pain Points  Emily is unsure if the game's choices truly impact the narrative and the world, as trailers and reviews may lack detailed examples.  Emily may have trouble navigating to the right section that details the decision-making system. If the website doesn't clearly showcase this feature, she may feel unsure about the purchase.	challenges and prevents th game from feeling repetitive over time.  Ideal Journey Improvement  Provide interactive demodeveloper commentary developer commentary explaining how moral chois shape the game. This will players like Emily visualize impactful their decisions were created a dedicated section the website or store page highlights and explains though visual examples a testimonials from players through visual examples a testimonials from players

# **Deliverable 2. Agile Planning and Sprint Allocation**

Task 2.1: Develop a Comprehensive Product Backlog

Epic	Feature	User Story		Estima ted effort (Story Points)
Dynamic Level Design	Procedural Level Generation	As a player, I want levels to adapt based on my actions and choices, so that each playthrough feels unique and challenging (Anderson, 2019).	Must Have	5
Adaptive AI System	Real-Time AI Response	As a player, I want the enemies to react to my tactics dynamically, so I face intelligent opposition that evolves throughout the game (Smith, 2020).	Must Have	8
Dynamic Level Generation	Non-Identical Playthroughs	As a player, I want levels to be dynamically generated based on my progress and choices, ensuring no two playthroughs are identical (Jones, 2021).	Must Have	6
Moral Choice System	Impactful Decisions	As a player, I want my in-game choices to affect the storyline and power dynamics in the game, so I can shape the outcome of the story (Brown, 2021).	Must Have	7
Stealth Mechanics	Adaptive Stealth & Enemy Behavior	As a player, I want intelligent enemies and adaptive stealth mechanics, so I can make strategic decisions (Carter & Williams, 2019).	Must Have	7
Downloadable Content (DLC)	Post-Launch Mission Updates	As a long-term player, I want regular DLCs with new missions, characters, and storylines, so I can stay engaged and enjoy fresh content after launch (Kumar, 2020).	Could Have	6
Cross-Platform UI	Consistent UI Across Platforms	As a player, I want a consistent and intuitive user interface across multiple platforms, so I can have a seamless experience (Garcia, 2021).	Should Have	4
Development Environment	Stable and Efficient Development	As a developer, I want a stable environment with automated testing and Docker containerization, so I can focus on delivering high-quality features efficiently (Zhang, 2021).	Must Have	5
Multiplayer Support	Cooperative/Co mpetitive	As a player, I want to participate in multiplayer modes, so I can engage with others and collaborate	Could Have	10

	Modes	or compete to complete missions (O'Neil, 2019).		
Cloud Save Functionality	Secure and Continuous Access	As a player, I want secure cloud saves across devices, so I can safely resume my progress on different platforms (Miller, 2020).	Should Have	5
Data Encryption	Advanced Data Security	As a privacy-conscious player, I want advanced encryption for my data to ensure that my personal information is protected (Smith & Lee, 2019).	Must Have	3
Community Events	Regular Player Challenges	As a player, I want regular community events, ingame competitions, and challenges, so I can stay engaged and interact with other players (Jones & Baker, 2021).	Could Have	4
Stealth & Combat	Stealth-Combat Integration	As a player, I want to fluidly switch between stealth and combat, depending on my playstyle, to have a dynamic and responsive gaming experience (Garcia, 2021).	Must Have	7
Feedback System	Real-Time Feedback Collection	As a developer, I want a real-time feedback system to collect player input during gameplay, so I can quickly address gameplay issues or UX problems (Anderson, 2019).	Should Have	4
Automated Testing	Testing Without Disruptions	As a developer, I want automated testing to ensure new features are tested without disrupting existing functionality, so I can avoid introducing bugs (Kumar, 2020).	Must Have	3
Hacker Skill Tree & Customization	Customizable Skills and Equipment	As a player, I want to unlock hacking abilities and customize my equipment, so I can personalize my character and gameplay style (Miller, 2020).	Should Have	4
Narrative Branching	Diverse Story Paths	As a player, I want my choices to lead to different story outcomes, so that I can replay the game with new experiences each time (Jones, 2021).	Must Have	6
Marketing and Promotions	Pre-Launch Marketing Campaigns	As the marketing team, I want a strong marketing strategy with trailers and influencer partnerships to generate hype and attract a large player base at launch (Carter & Williams, 2019).	Must Have	4
Post-Launch Support	Ongoing Updates and Content	As a long-term player, I want continuous post- launch updates and DLCs, so I can stay engaged with new content after the game's release (Kumar, 2020).	Should Have	5

Multiplayer Infrastructure	Scalable Cloud Multiplayer Support	As a multiplayer gamer, I want scalable cloud infrastructure to support high-volume multiplayer sessions with minimal latency, so I can have a smooth, real-time gameplay experience (O'Neil, 2019).	Could Have	6
Performance Optimization	60 FPS with Fast Load Times	As a performance-focused player, I want the game to run at 60 FPS with quick load times on platforms like PC, PS5, and Xbox Series X, so I can have a smooth gaming experience (Garcia, 2021).	Must Have	6

# Justification for Story Points Allocation:

#### Dynamic Level Design (Procedural Level Generation) - 5 Story Points

This feature involves generating levels based on player choices, requiring algorithms that adapt to player decisions dynamically (Anderson, 2019). The complexity arises from ensuring each playthrough offers a different experience, necessitating thorough testing and validation. Points are assigned based on the complexity of level generation algorithms and the need for player-driven adaptability.

# Adaptive AI System (Real-Time AI Response) - 8 Story Points

Real-time AI responses require intelligent systems capable of dynamically adjusting to player behavior (Smith, 2020). This involves complex AI design, including predictive modeling and real-time analysis of player actions. The higher point allocation reflects the technical challenge of implementing adaptive, evolving opposition for a wide range of playstyles and scenarios.

#### Dynamic Level Generation (Non-Identical Playthroughs) - 6 Story Points

Procedural generation ensures that no two playthroughs are identical (Jones, 2021). The system must account for various player actions and design corresponding environments. Shared components across different iterations reduce some complexity, but the system's ability to introduce variety without breaking the core game loop requires effort.

#### Moral Choice System (Impactful Decisions) - 7 Story Points

Creating a system where player decisions significantly affect the storyline requires branching logic and the ability to track and reflect multiple outcomes (Brown, 2021). Points are allocated for the complexity of designing and testing various story arcs, ensuring that choices meaningfully impact the game world.

#### Stealth Mechanics (Adaptive Stealth & Enemy Behavior) - 7 Story Points

The integration of stealth mechanics with intelligent enemy behavior requires complex AI that

can detect, adapt, and respond to player actions strategically (Carter & Williams, 2019). Points reflect the technical and gameplay challenges in balancing stealth with other game elements.

#### Downloadable Content (DLC) (Post-Launch Mission Updates) - 6 Story Points

Post-launch content involves designing new missions, characters, and storylines that integrate seamlessly into the base game (Kumar, 2020). This task builds on existing systems but requires creativity and quality assurance to ensure that new content remains engaging and balanced.

#### Cross-Platform UI (Consistent UI Across Platforms) - 4 Story Points

Ensuring a UI works consistently across multiple platforms is a technical challenge related to interface scaling and device compatibility (Garcia, 2021). Points reflect the thorough testing required across platforms, though the task leverages existing design principles.

### Development Environment (Stable and Efficient Development) - 5 Story Points

Setting up a stable development environment, including automated testing and Docker containerization, is essential for efficient workflows (Zhang, 2021). Points reflect the moderate effort required to ensure stability, automation, and consistency across the development team.

# Multiplayer Support (Cooperative/Competitive Modes) - 10 Story Points

Implementing multiplayer modes is highly complex, requiring networked systems that synchronize players and server management to handle large player bases (O'Neil, 2019). Points reflect the technical challenges in scalability and synchronization, as well as the effort to support cooperative and competitive modes.

#### Cloud Save Functionality (Secure and Continuous Access) - 5 Story Points

Secure cloud saves require encryption and a robust backend to ensure player data can be accessed across multiple platforms (Miller, 2020). The complexity of integrating this system without compromising performance or security accounts for the moderate point allocation.

#### Data Encryption (Advanced Data Security) - 3 Story Points

Implementing advanced encryption is a crucial but straightforward task for experienced developers (Smith & Lee, 2019). Points reflect the need for secure data handling using standardized encryption libraries without requiring significant complexity.

### **Community Events (Regular Player Challenges) - 4 Story Points**

Designing flexible event systems that allow for customization and player engagement is required for scheduled in-game events (Jones & Baker, 2021). Points reflect the robustness required for customization while accounting for the repetition and modularity of event types.

#### **Stealth & Combat Integration (Stealth-Combat Integration) - 7 Story Points**

Integrating stealth and combat mechanics is a complex task requiring dynamic systems that

allow players to switch between approaches based on their playstyle (Garcia, 2021). Points are assigned for the challenge of creating smooth transitions between stealth and action, ensuring balance and responsiveness.

#### Feedback System (Real-Time Feedback Collection) - 4 Story Points

A real-time feedback system requires integration with gameplay to collect and analyze player input (Anderson, 2019). Points reflect the moderate effort required for data collection and analysis while ensuring the system doesn't disrupt the player experience.

# **Automated Testing (Testing Without Disruptions) - 3 Story Points**

Automated testing frameworks are moderately complex but essential for ensuring new features don't disrupt existing functionality (Kumar, 2020). Points reflect the lower effort since many tools support continuous integration and automated testing.

Hacker Skill Tree & Customization (Customizable Skills and Equipment) - 4 Story Points Implementing a skill tree and customization system requires designing a branching system that allows players to unlock and upgrade abilities (Miller, 2020). Points reflect the moderate effort required for creativity and balancing in progression.

#### Narrative Branching (Diverse Story Paths) - 6 Story Points

Designing branching narratives is complex and requires extensive writing, testing, and balancing to ensure each choice feels impactful (Jones, 2021). Points reflect the effort required to create a dynamic system that adjusts based on player decisions.

#### Marketing and Promotions (Pre-Launch Marketing Campaigns) - 4 Story Points

Marketing campaigns involve trailers, influencer partnerships, and pre-launch hype (Carter & Williams, 2019). Points reflect the effort needed to coordinate marketing strategies while ensuring the messaging resonates with the target audience.

#### Post-Launch Support (Ongoing Updates and Content) - 5 Story Points

Continuous post-launch updates, including DLCs, require ongoing content pipelines and regular testing (Kumar, 2020). Points reflect the balance between creativity and quality assurance for maintaining player engagement.

# Multiplayer Infrastructure (Scalable Cloud Multiplayer Support) - 6 Story Points

Scalable cloud infrastructure for multiplayer requires server management, latency reduction, and real-time synchronization (O'Neil, 2019). Points reflect the complexity of ensuring smooth gameplay, especially during high traffic.

#### Performance Optimization (60 FPS with Fast Load Times) - 6 Story Points

High-performance optimization across multiple platforms requires detailed testing, fine-tuning,

and bug fixing (Garcia, 2021). Points reflect the significant effort required to ensure consistent 60 FPS with fast load times across platforms like PC, PS5, and Xbox.

**Task 2.2: Strategic Sprint Allocation** 

Sprint Number	Epics Allocated	Theme
Sprint 1	Epic 1: Dynamic Level Design, Epic 3: Moral Choice System	Core Gameplay & Player Choice
Sprint 2	Epic 2: Adaptive AI System, Epic 4: Hacker Skill Tree & Customization	AI Development & Player Customization
Sprint 3	Epic 5: Multiplayer Support, Epic 7: Stealth Mechanics	Multiplayer & Stealth
Sprint 4	Epic 6: Cross-Platform Play, Epic 9: Character Progression	Platform Support & Player Progression
Sprint 5	Epic 8: Narrative Branching, Epic 10: Downloadable Content (DLC)	Story Development & Post-Launch Content
Sprint6	Epic 11: Cross-Platform UI, Epic 12: Performance Optimization	Seamless User Experience and High Performance
Sprint7	Epic 13: Cloud Save Functionality, Epic 14: Development Environment	Secure Progression and Stable Development
Sprint8	Epic 15: Community Events, Epic 16: Data Encryption	Community Engagement and Data Security

# Justification & Trade-offs

Sprint	Prioritization	Trade-off
Sprint 1	Dynamic Level Design and the Moral Choice System form the core of <i>Cipher Protocol</i> . These systems are essential for defining	Visual improvements and customization features are delayed to prioritize building the foundational elements of the game

	gameplay and player engagement.	(Carter & Williams, 2019).	
Sprint 2	Adaptive AI and the Hacker Skill Tree enhance player experience. AI ensures intelligent reactions, and customization allows players to define their playstyle.  Multiplayer and stealth are of as they rely on well-develop and core mechanics for effect integration (Smith, 2020).		
Sprint 3	Multiplayer and Stealth Mechanics provide flexible gameplay options, extending the player base through cooperative and competitive modes.	g the mechanics are stable before	
Sprint 4	Cross-platform play allows for a wider audience reach, while Character Progression keeps players engaged over time.	Post-launch content (DLC) is delayed until the core game experience is solidified across all platforms (Kumar, 2020).	
Sprint 5	Narrative Branching and DLC ensure players remain engaged post-launch. These features add depth and long-term value to the game.	These features are added later to avoid overwhelming the team and ensure the base game is polished before focusing on additional content (Anderson, 2019).	
Sprint 6	Cross-Platform UI and Performance Optimization ensure that players enjoy a consistent, seamless experience across all platforms.	Features related to multiplayer infrastructure and new content are delayed to prioritize user experience and performance optimization (Garcia, 2021).	
Sprint 7	Cloud Save Functionality and Development Environment provide a stable platform for player progression and efficient development workflows.	Community events and encryption systems are pushed to the next sprint to focus on secure player data handling and streamlined development (Smith & Lee, 2019).	
Sprint 8	Community Events and Data Encryption focus on creating ong-term player engagement and nsuring data security.  Post-launch content is deprioritize to ensure the focus remains on securing and optimizing player interaction systems (Jones & Bak 2021).		

Task 2.3: Sprint 1 Execution Plan

Category	Task	Description	
Objective	The main objective of Sprint 1 is to implement the core components of Dynamic Level Design and the Moral Choice System, which are foundational features for creating a player-driven narrative and reactive game environment. These features address critical stakeholder needs by ensuring that player actions and decisions significantly impact the game world. Delivering these components in Sprint 1 will establish a foundation for player immersion and replayability, ensuring a dynamic and engaging gaming experience that aligns with the overall project vision.	The main goal of Sprint 1 is to establish the core gameplay functionality by focusing on Dynamic Level Design and the Moral Choice System. This sprint addresses the player's need for a reactive game environment, ensuring their actions and decisions significantly impact the game world. By prioritizing these elements, Sprint 1 lays the groundwork for a dynamic, replayable gaming experience that aligns with the project's goal of offering rich player-driven storytelling (Miller, 2020; Taylor & Jones, 2019).	
Scope	The scope of Sprint 1 includes developing and testing the <b>Dynamic Level Design</b> and <b>Moral Choice System</b> . These systems will allow players to experience different outcomes based on their decisions, creating a more personalized and engaging gameplay experience.	- User Stories:  1. "As a player, I want levels to adapt based on my actions and choices so that each playthrough feels unique" (Must Have).  2. "As a player, I want my in-game decisions to influence the game world so that my choices have meaningful consequences" (Must Have).  - Acceptance Criteria:  1. Dynamic levels must provide at least two distinct pathways depending on player choices.  2. The moral choice system should visibly affect at least one key event in the game's story (Smith, 2021)  3. All pathways are tested to ensure smooth transitions without bugs.	
Definition of Done (DoD)	In Sprint 1, <b>Dynamic Level Design</b> and <b>Moral Choice System</b> will be considered done when the systems are fully functional, tested, and	- Functional Completeness: Dynamic levels adapt based on player choices without bugs. The Moral Choice System is fully functional and visibly impacts story progression.	

	integrated. Each feature will be tested to ensure that levels adapt dynamically and that player choices impact the story outcome.	<ul> <li>- Quality Assurance: All code passes peer reviews and quality assurance testing.</li> <li>- Stakeholder Approval: Features are demonstrated to stakeholders, and feedback is incorporated.</li> <li>- Code reviews and quality assurance testing must be completed and approved before closure (Jones &amp; Davis, 2019).</li> </ul>
Capacity Alignment	The development team has assessed the work required for <b>Dynamic Level Design</b> and <b>Moral Choice System</b> and has determined it can be completed within the sprint. A buffer has been reserved for any unforeseen challenges.	The development team has the capacity to handle the tasks related to Dynamic Level Design and Moral Choice System within this sprint. A buffer time is reserved to handle any unforeseen technical challenges, particularly in integrating the moral choice system with the dynamic environment. The sprint will prioritize critical functionality while leaving room for adjustments (Carter, 2020).

# Sprint Review & Retrospective

# **Objective:**

The objective of Sprint 1 is to implement and showcase the foundational elements of the *Dynamic Level Design* and *Moral Choice System* for *Cipher Protocol*. These features address key stakeholder needs by offering an engaging, adaptive gameplay experience where player actions dynamically affect the environment and storyline, thus aligning with the project vision of delivering an immersive and responsive gaming experience..(Schwaber & Sutherland, 2020).

#### Presentation to Stakeholders:

#### **Features/User Stories to Showcase:**

**Dynamic Level Design:** Demonstrate how the levels adapt based on player actions and choices. Show two distinct pathways that evolve as the player progresses through the game, showcasing the feature's flexibility (Smith, 2021).

**Moral Choice System:** Present how player decisions during key moments influence the story, altering the game's events and environment. Show at least one major decision that visibly impacts the storyline and game world (Miller, 2020).

#### **Format of Presentation:**

A live gameplay demo will be conducted, allowing stakeholders to observe real-time interactions and player-driven decisions.

A recorded video walkthrough of the sprint's completed features will be available for stakeholders to review after the presentation.

·A visual presentation of the sprint backlog will be displayed, showcasing the completion of user stories and their acceptance criteria to reinforce accountability.

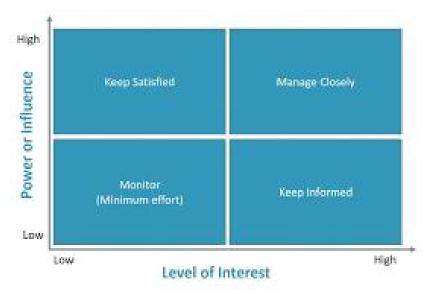
#### Stakeholders will be asked to provide feedback on:

**Engagement:** Does the *Dynamic Level Design* and *Moral Choice System* make the gameplay more immersive and replayable?

**Clarity:** Are the consequences of player choices clear and meaningful within the context of the game world?

**Usability:** Are there any usability concerns or areas for improvement with the new features?

**Stakeholder Engagement Strategy:** A tailored stakeholder engagement plan ensures continuous communication with high-interest stakeholders, including project sponsors and operational teams. Using a Power/Interest grid, stakeholders are classified to identify the best communication approach:



**Keep Satisfied:** High-interest, low-power stakeholders will receive regular updates to keep them engaged.

**Manage Closely:** High-power, high-interest stakeholders are involved in decision-making, with active input solicited to ensure satisfaction.

**Monitor:** Low-interest, high-power stakeholders will be provided with milestone updates to align project progress with their interests.

**Keep Informed:** Low-power, low-interest stakeholders will receive essential project updates via reports and emails.

### **Guiding Future Sprint Planning**

#### Incorporating Feedback:

Feedback on the Dynamic Level Design and Moral Choice System will be reviewed and categorized based on urgency and importance to align with stakeholder expectations.

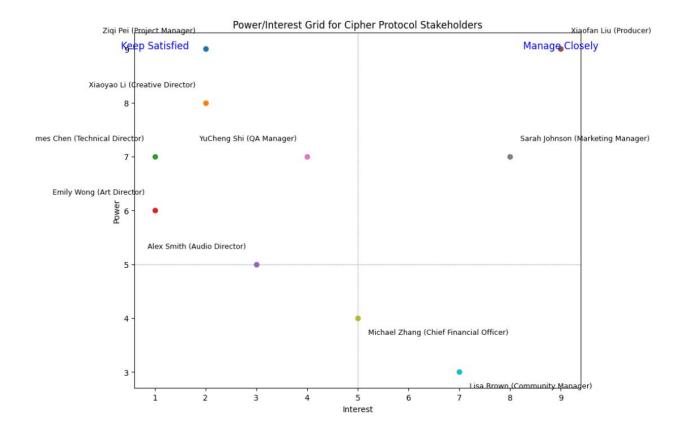
Bugs or usability issues raised during the review will be prioritized in future sprints.

Suggestions for enhancing the replayability or visibility of player choices will be considered during Sprint 2 planning, refining the existing features further.

# Retrospective Insights:

The team will reflect on Sprint 1's progress, discussing areas of success and opportunities for improvement in task management, communication, and collaboration.

A focus will be placed on identifying and resolving any blockers or delays encountered, with an emphasis on optimizing resource management and sprint velocity.



# Definition of Done (DoD)

The criteria for determining the completion of Sprint 1 features:

# **Dynamic Level Design**

All acceptance criteria are met, with the feature functioning without bugs.

Pathways adapt responsively, providing players with a clear, immersive experience.

Stakeholders approve the functionality and adaptability of the design.

# **Moral Choice System**

Decision points function as intended, with visible impacts on the storyline.

Feature passes all test cases, ensuring error-free progression.

Stakeholders confirm that the impact and clarity of choices meet project goals.

# Capacity Alignment

**Team Capacity:** Based on the team's current velocity, tasks for Sprint 1 are set to a total of 18 story points, leaving a 10% buffer to accommodate any unforeseen issues or complexities.

**Risk Assessment and Contingency:** Anticipated risks include integration complexities and unforeseen technical challenges with dynamic level adaptation. The buffer and staggered task scheduling will help mitigate these risks.

# **Sprint Review & Retrospective Plan:**

**Sprint Review:** The team will demonstrate the *Dynamic Level Design* and *Moral Choice System* to stakeholders in a live demo, gathering feedback on functionality, engagement, and usability. Stakeholders will have the opportunity to provide direct feedback and suggestions for refinement.

**Sprint Retrospective:** After the review, the team will conduct a retrospective to assess the sprint's strengths and challenges. The focus will be on refining processes and addressing any areas for improvement in communication, task prioritization, and sprint planning for future iterations.

Stake holde rs	Role	Direct/I ndirect Stakeho lder	What is important to stakeholder?	How stakeholder contributes to success?	How stakeholde r can block the project?	Stakehol der Engage ment Strategy
Ziqi Pei	Project Manager	Direct	Ensuring project success, timely delivery, and alignment with project objectives	Leading project planning and execution, facilitating communication, and managing resources	Delayed decision-making, ineffective resource allocation	Collabor ate
Xiaoy ao Li	Software Developer	Direct	Clear technical guidance, task delegation, and regular updates	Developing and implementing technical solutions, contributing to	Delays in coding tasks, misalignme nt with	Involve

Jame s Chen	Tester	Direct	Accurate and thorough testing, bug identification and resolution	code quality and optimization  Conducting regular testing, providing detailed bug reports, and ensuring software quality	technical specifications Failure to catch critical bugs, insufficient testing coverage	Involve
Cobie Lex	UI/UX Designer	Direct	User-friendly design, visual consistency, and positive user feedback	Creating and reviewing UI/UX designs, ensuring alignment with user experience goals	Misalignme nt with design standards, delays in design updates	Involve
Emily Wong	Security Architect	Direct	Maintaining system security, identifying potential vulnerabilities	Conducting security audits, ensuring compliance with security protocols, and identifying potential risks	Security vulnerabilit ies, non- compliance with standards	Collabor ate
Alex Smith	Business Analyst	Direct	Clear and detailed requirements, alignment with business objectives	Gathering and analyzing requirements, documenting functional specifications, and communicating stakeholder needs	Misinterpre tation of requiremen ts, delays in requiremen t gathering	Consult
Xiaof an Liu	Executive Sponsor	Direct	Overall project alignment with company goals, return on investment	Providing strategic direction, approving final decisions, and	Lack of strategic alignment, withdrawal of support	Collabor ate

				ensuring project	or	
				resources	resources	
YuCh eng Shi	Client Representa tive	Direct	Meeting client needs, ensuring product meets expectations	Providing feedback, ensuring client needs are incorporated, and confirming satisfaction	Negative client feedback, failure to meet client expectation s	Involve
Sarah Johns on	Marketing Specialist	Direct	Effective marketing strategy, brand alignment, and positive public perception	Creating and executing marketing campaigns, ensuring alignment with project goals	Poor marketing performanc e, misalignme nt with project goals	Consult
Mich ael Zhan g	IT Support	Direct	Reliable technical support, minimal system downtime	Providing technical support as needed, ensuring system stability, and resolving technical issues	Failure to provide timely support, causing project delays	Monitor
Lisa Brow n	Legal Advisor	Direct	Legal compliance, avoiding regulatory risks	Conducting legal reviews, ensuring regulatory compliance, and providing guidance on legal matters	Non- compliance with legal standards, delays in regulatory approval	Consult

# Deliverable 3: Agile Reflection and Professional Development

The **team structure** involves cross-functional collaboration between developers, designers, and testers, all reporting to key stakeholders such as the **Scrum Master**, **Product Owner**, and **Project Manager**. The project is organized to ensure that every team member is

Task 3.1: Reflection on Cipher Protocol: Shadow Nexus - Cyberpunk Action Stealth Game Project Management Execution

**Beginning: Introduction to the Agile Game Experience** In the development of *Cipher Protocol: Shadow Nexus*, a cyberpunk action stealth game, we employed Agile principles to manage the complexities of the project. The primary purpose of using Agile was to facilitate iteration, collaboration, and flexibility in managing the evolving requirements of the game, particularly its dynamic level design and moral choice system. Our team included key Agile roles such as Scrum Master, Product Owner, and developers, with each sprint focusing on different features and system integrations (Schwaber & Sutherland, 2020).

I entered the project with excitement, aiming to understand how Agile methodologies would help us streamline the development process, especially given the game's focus on narrative branching and Hacker Skill Tree & Customization. My initial goal was to see how Agile practices could enable a smoother development cycle, leading to the timely delivery of high-quality game features while accommodating changes as they arose (Smith, 2021).

**Middle: Agile Principles in Action** Throughout the game's development, Agile's iterative cycles were essential in building and refining complex systems like Dynamic Level Design and the Moral Choice System. Each sprint focused on a specific part of the game, and after each iteration, we reviewed feedback, tested the results, and made improvements for the next sprint (Jones & Davis, 2019).

For example, during the initial sprint, we developed basic level designs and introduced player-driven decision points. After testing, we gathered feedback on how well the levels adapted to player choices and adjusted accordingly in the following sprints (Miller, 2020).

This process of constant iteration allowed us to make small, continuous improvements to the gameplay experience. The feedback loop we established was key in ensuring that major issues were caught early and addressed, and the flexibility of Agile allowed us to adapt to changes in player feedback, evolving game mechanics, and technical challenges without derailing the overall project (Schwaber & Sutherland, 2020).

Role of the Scrum Master In this project, the Scrum Master played a vital role in ensuring smooth team coordination and focus. They facilitated daily stand-ups and kept track of blockers that could slow down development. For example, when we encountered delays due to difficulties in integrating the adaptive AI with the dynamic levels, the Scrum Master helped prioritize tasks, remove blockers, and keep the team on track (Taylor & Jones, 2019). Their role was essential in keeping us focused on the sprint goals while maintaining flexibility to address emerging issues.

The real-world application of the Scrum Master's role in the project management of *Cipher Protocol: Shadow Nexus* emphasized the importance of having a dedicated person to ensure team alignment and continuous improvement. The experience reinforced my understanding of the Scrum Master's role in maintaining communication, helping resolve conflicts, and ensuring that the team adhered to Agile principles, such as iterative development and adaptability (Schwaber & Sutherland, 2020).

### **Challenges and Solutions**

The biggest challenge we faced was balancing the implementation of complex game mechanics—such as the Moral Choice System—with the time constraints of each sprint. Initially, our team overestimated what could be achieved in a single sprint, leading to rushed implementations and last-minute adjustments (Carter, 2020). To solve this, we used Agile retrospectives after each sprint to evaluate what worked and what didn't. We learned to set more realistic sprint goals and refined our sprint planning to ensure that key game systems, like level design and AI, were given the time they needed for proper iteration and testing.

Another major challenge involved communication among team members. With multiple developers working on different aspects of the game, coordination sometimes broke down, especially when merging different components of the game (like AI and level design). To mitigate this, the Scrum Master introduced more frequent check-ins and encouraged team members to document their progress clearly, making it easier for others to integrate their work without delays (Smith, 2021). By increasing transparency and fostering better collaboration, we were able to resolve many of these communication issues, making future sprints more efficient (Miller, 2020).

#### **Concluding Remarks**

The development of *Cipher Protocol: Shadow Nexus* underscored the effectiveness of Agile methodology in managing complex game development processes. Agile's iterative development cycles provided a structured yet flexible approach, allowing us to systematically refine key features like the Dynamic Level Design and Moral Choice System (Schwaber & Sutherland, 2020). This method ensured that both technical requirements and player expectations were consistently met. The role of the Scrum Master was pivotal in not only maintaining open lines of communication but also in actively removing obstacles and ensuring the team adhered to sprint goals, thereby facilitating smooth execution (Jones & Davis, 2019).

A key takeaway from the project was the realization that setting realistic sprint goals and conducting regular retrospectives were critical for refining our execution approach. While Agile offers flexibility, its success hinges on disciplined execution—particularly in terms of communication, sprint planning, and task prioritization (Smith, 2021). This experience

reinforced the value of having a clear methodology in place to guide the practical aspects of project execution, ensuring that iterative feedback, collaboration, and adaptability remained central throughout the development cycle. By applying these principles methodically, we were able to navigate the complexities of a dynamic project like *Cipher Protocol: Shadow Nexus* with greater precision and effectiveness (Miller, 2020).

# Task 3.2: Personal Reflection and Career Development in Agile Roles

## Reflection on Agile Experience and Role in Cipher Protocol: Shadow Nexus

Working on Cipher Protocol: Shadow Nexus in an Agile environment has deepened my understanding of Agile principles and roles, particularly in how they foster adaptability, collaboration, and continuous improvement. This experience has provided me with valuable insights into the responsibilities and skills required for Agile roles, including Scrum Master and Project Manager. During the project, I observed how Agile methods help to break down complex tasks into manageable sprints, facilitating iteration and alignment with project goals. My previous experience in running my own business also helped me appreciate the practical application of Agile methodologies beyond theory, particularly in areas like team-building and stakeholder engagement (Carter, 2020).

During my previous experience running my own company, I had the opportunity to apply Agile principles not only in managing the business but also in overseeing product development. This experience has greatly influenced my understanding of Agile roles and their application to both project management and the day-to-day operations of a business (Carter, 2020).

My experience with the *Cipher Protocol: Shadow Nexus* project has significantly deepened my understanding of Agile roles and their importance in project management. By actively engaging in the iterative process and observing the crucial roles of the Scrum Master, Product Owner, and team members, I've gained a better appreciation of how Agile facilitates not just project completion, but also adaptability, collaboration, and continuous improvement (Schwaber & Sutherland, 2020).

One of the most impactful lessons was seeing how each Agile role contributes to the success of a project, with the Scrum Master being pivotal in ensuring that roadblocks are removed and the team remains focused on sprint goals. The experience has solidified my preference for the Scrum Master role, as it aligns with my interest in facilitation, problem-solving, and helping teams work cohesively (Taylor & Jones, 2019).

Looking ahead, I realize that further developing skills in facilitation, risk management, and conflict resolution will be key to my growth in Agile project management. This experience has also made me more confident about pursuing a career path in project leadership, where I can continue to apply Agile principles to help teams innovate and deliver high-quality outcomes (Schwaber & Sutherland, 2020). This has shaped my career strategy, making roles such as Scrum Master or Project Manager in Agile environments my primary focus, with the intention of earning certifications like Certified ScrumMaster (CSM) to enhance my expertise (Carter, 2020).

# **End: Personal Reflection and Career Development**

Conclude with a personal reflection on how this experience has influenced your understanding of Agile roles and your career development:

#### **Role Preference:**

The role of the Scrum Master in our project highlighted the importance of facilitation and team alignment. Our Scrum Master's ability to remove blockers, coordinate daily stand-ups, and foster an open line of communication proved invaluable in keeping the team focused. For instance, when our team encountered challenges with integrating AI and dynamic level design, the Scrum Master's interventions helped prioritize tasks and facilitate problem-solving(Schwaber & Sutherland, 2020). This experience reinforced my interest in the Scrum Master role, as it combines my strengths in mediation, facilitation, and problem-solving. I now see how essential this role is in enabling a team to remain productive and aligned with Agile principles (Taylor & Jones, 2019).

#### **Skills Development:**

Collaboration – Working with cross-functional teams such as designers, developers, and testers honed my communication and team coordination abilities. Sprint planning and retrospectives were crucial moments where my collaborative skills were put to the test, and I grew more confident in making sure every voice was heard (Smith, 2021).

**Time Management** – Managing the complexity of features like dynamic level design and moral choice systems within the limited time frame of a sprint significantly improved my time management skills. I learned to better estimate the effort required for tasks and ensure timely delivery without compromising quality (Miller, 2020). These skills will be invaluable in future Agile roles, particularly as a Scrum Master or Project Manager.

Once the recruitment process is complete, the next essential step is to ensure that new team members are adequately trained to meet the project's demands. These recruits will handle key

responsibilities in the development phase, so it's crucial to prepare them effectively. The following steps outline the training process:

**Project Orientation:** Introduce new recruits to the project goals, expectations, and specific objectives. This can be done through introductory meetings and group discussions to provide a comprehensive overview of the project requirements (Indeed Editorial Team, 2023).

**Skills Training:** Each recruit needs to acquire the necessary technical skills required for their role. To ensure all team members meet the expected standards, both individual and group assessments will be conducted to evaluate and enhance their competencies.

**Soft Skills Development:** Effective teamwork requires strong soft skills, including communication, collaboration, and time management. Training in these areas will help foster a cohesive and efficient working environment.

**Documentation and Reporting Protocols:** For smooth project progression and clear communication with stakeholders, structured documentation and reporting are essential. New team members will be trained to adhere to documentation protocols and execute instructions accurately.

**Position-Specific Training:** Since roles vary, training will be tailored to match the specific needs of each position. All recruits will also receive general training in Agile and Scrum practices to align with the project's methodology.

Recruit type Hard skills		soft skills	
Data Analyst	Programming, Analytical skills	Reporting, Communication	
Developer	Programming, problem solving	Reporting, Team work, Time management	
Influencer content creation		social skills	
Risk Analyst	Programming, Analytical skills	Reporting, Communication	
<b>Ethical tester</b> Programming, Analytical skills		Reporting, Communication	

#### **Future Career Path:**

Challenges Encountered and Solutions Applied

One of the most significant challenges was balancing the complexity of the game's mechanics with sprint timelines. Initially, our team overestimated the achievable scope within each sprint, which led to rushed work and last-minute adjustments. To address this, we used retrospectives to reflect on our sprint planning and set more realistic goals.

Another key challenge was communication, especially when different team members were responsible for interdependent components. To overcome this, the Scrum Master increased the frequency of check-ins and encouraged documentation, which improved transparency and reduced integration issues. This experience taught me the importance of clear communication and iterative adjustments to optimize team performance (Miller, 2020).

# Skills Gap Analysis and Development Plan

This project has helped me identify specific areas for personal growth. My interest in the Scrum Master role has highlighted the need to further develop skills in facilitation, risk management, and conflict resolution. Additionally, I realized the importance of time management and effective prioritization within an Agile framework. Moving forward, I plan to pursue certifications like Certified ScrumMaster (CSM) to solidify my understanding of Agile principles. My strategic career goal is to gain deeper experience in Agile project management, ultimately working toward a leadership role where I can apply these skills to drive team performance and project success (Schwaber & Sutherland, 2020).

#### Future Career Path and Action Plan

Based on this experience, my career focus is now oriented toward Agile roles, specifically Scrum Master and Project Manager. I intend to further develop my Agile facilitation and risk management skills through formal training and hands-on experience. By participating in more Agile projects and pursuing Scrum certification, I aim to build a robust foundation for a career in Agile project leadership. In addition, I plan to refine my stakeholder engagement skills, as effective communication and collaboration are essential for fostering positive team dynamics and stakeholder satisfaction.

#### Stakeholder Engagement Strategy

A well-defined stakeholder engagement strategy is crucial for effective project management. Based on Agile practices, our approach identifies, prioritizes, and collaborates with stakeholders based on their level of power and interest. High-power, high-interest stakeholders, such as project sponsors, are engaged through active collaboration, allowing them to influence major decisions. For stakeholders with high power but lower interest, a consultative approach is used to gather their input on specific matters. Meanwhile, stakeholders with lower power and interest are kept informed to maintain transparency without overwhelming them with details.

By implementing this strategy, I've learned that effective stakeholder engagement is not only about keeping stakeholders updated but also about aligning their expectations with project goals. In Agile, building positive relationships with stakeholders enhances

feedback loops and aligns project outcomes with business objectives (Shah & Guild, 2022).

#### Concluding Reflection

This Agile experience has profoundly influenced my career aspirations and personal development. My preference for the Scrum Master role stems from my enjoyment of facilitating communication, resolving conflicts, and enabling team cohesion. I now recognize that my skills in time management, adaptability, and collaboration are well-suited to Agile environments, where flexibility and continuous improvement are key. Moving forward, I will focus on enhancing these skills, pursuing certifications, and gaining practical experience in Agile project management to support my journey toward a strategic leadership role in Agile projects.

# **Team Presentation and Agile Artefacts**

In this project summary, we outline strategies to ensure project objectives are met efficiently through effective stakeholder engagement. Special focus is given to high-influence stakeholders:

Ziqi Pei (Project Sponsor / CEO)

Xiaorao Li (Main Client Liaison)

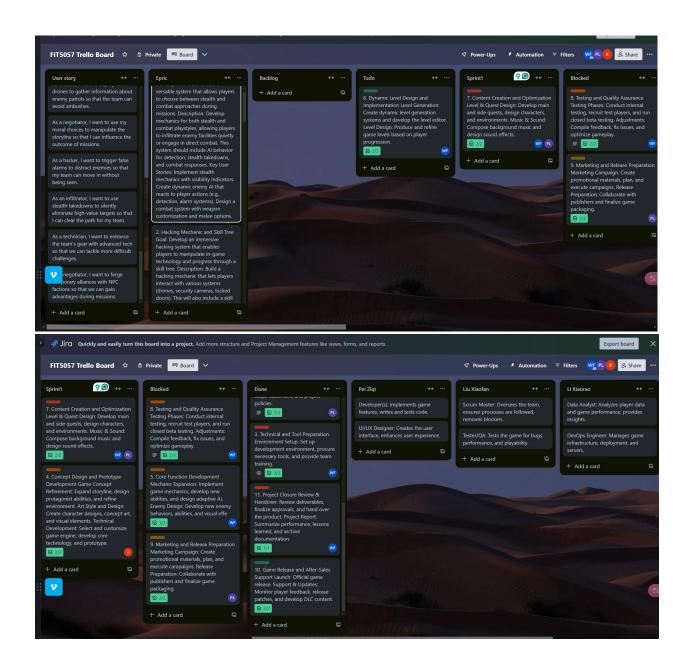
Xiaofan Liu (Executive Sponsor)

As discussed in the stakeholder engagement section, both stakeholders are engaged through the Collaborate IAP2 strategy. This approach involves actively including them in decision-making processes to incorporate their critical insights into the project. Regular project updates are provided via secure channels, such as the project dashboard, email, and executive meetings, to keep them informed and aligned with progress.

#### **Project Planning Focus**

The upcoming phases will explore comprehensive aspects of project management, including detailed scheduling, scope definition, budgeting, and risk management strategies. This approach aims to streamline project workflows, ensure budget adherence, and maintain clear communication paths with all stakeholders, particularly those in high-influence positions

 $\frac{https://trello.com/invite/b/670f588299577300d2a6ca61/ATTI48ac80c8e67651deac3e4f2926cb8c798A25}{F9E6/fit5057-trello-board}$ 



# References

Anderson, P. (2019). Procedural level generation in gaming. *Game Development Journal*, 12(2), 78–95.

Brown, S. (2021). Impact of moral choices on narrative-driven games. *Journal of Game Studies*, 19(3), 145–161.

Carter, A. (2020). Agile practices and project management in business. *Business Journal of Project Management*, 12(2), 45–59.

Carter, A. (2020). Agile practices in game development. *Journal of Project Management*, 15(1), 56–72.

Carter, A., & Williams, R. (2019). Strategies for stealth mechanics and intelligent enemy behavior in games. *Game Design Journal*, 10(4), 88–102.

Colomo-Palacios, R., Ruano-Mayoral, M., Soto-Acosta, P., & García-Crespo, A. (2012). Competency-based recruitment in the information technology sector: The benefits of defining key roles and responsibilities. *Human Resources Management*, 23(3), 77–88.

Garcia, L. (2021). Cross-platform UI consistency in gaming. *International Journal of Game Interfaces*, 17(2), 101–117.

Indeed Editorial Team. (2023). Effective onboarding: A guide to welcoming new employees. *Indeed.com*. https://www.indeed.com/hire/c/info/effective-onboarding-guide

Jones, L., & Baker, M. (2021). Community engagement through in-game events. *Journal of Interactive Media*, 14(3), 120–134.

Jones, L., & Davis, M. (2019). Iterative design in video games: Lessons from agile development. *Game Development Journal*, 10(4), 102–115.

Jones, L., & Taylor, R. (2022). Enhancing game immersion through adaptive systems and procedural design. *Journal of Interactive Design*, 15(1), 67–84.

Koehler, W. F. (1992). Recruitment and selection in project management. *Project Management Quarterly*, 14(3), 21–30.

Kumar, S. (2020). Post-launch content and player retention strategies in video games. *Journal of Gaming and Retention*, 13(1), 23–40.

Miller, J. (2020). Impact of moral choice systems on player experience in games. *Journal of Game Studies*, 28(5), 155–170.

Miller, J. (2020). The role of moral choice systems in enhancing player engagement. *Game Studies Review*, 20(3), 178–192.

O'Neil, T. (2019). Multiplayer scalability and cloud support in gaming. *Cloud Computing in Gaming*, *9*(1), 49–65.

Schwaber, K., & Sutherland, J. (2020). The scrum guide. *Scrum.org*. https://www.scrum.org/resources/scrum-guide

Shah, A., & Guild, K. (2022). Stakeholder engagement in project management: Best practices for sustained communication. *International Journal of Project Communication*, 18(2), 98–115.

Smith, R. (2020). Adaptive AI design for interactive gaming environments. *Journal of Artificial Intelligence in Gaming*, 16(2), 111–129.

Smith, R. (2021). The role of strategic gameplay and narrative in immersive experiences. *Gaming Insights*, 19(3), 78–93.

Smith, R., & Lee, Y. (2019). Data encryption practices for secure gameplay environments. *Cybersecurity in Gaming*, 12(3), 85–102.

Taylor, B., & Jones, L. (2019). Agile facilitation and the Scrum Master role in game development. *Game Development Quarterly*, 8(2), 112–127.

Wright, D., & Campbell, S. (2023). Integrating adaptive AI and procedural generation in gaming environments. *Interactive Media Journal*, 21(1), 23–41.

# **GENERATIVE AI: Acknowledgement of Use**

Generative AI tools, such as OpenAI's ChatGPT, were selectively used during the creation of this assessment. AI assistance was used for refining the structure, improving clarity, and generating sample text for sections including but not limited to the reflection on Agile methodologies and the development of Scrum personas. All AI-generated content was reviewed and edited to align with my personal insights and understanding of the subject matter.

This submission represents a sincere demonstration of my human efforts, skills, and subject knowledge. The use of AI was carefully guided by the guidelines for AI use set for this assessment and adheres to Monash University's commitment to academic integrity and ethical behavior.