

## **Product Statement / Product Vision**

### **VISION**

Dorinta de o noua viziune pentru seria Assasins Creed printr-un concept nou este prezenta in comunitatea acestui gigant, astfel ca ideea noastra ii da abilitatea asasinului sa calatoreasca in timp.

### **TARGET GROUP**

Jocul se adreseaza pasionatilor seriei Assasins Creed si a celor carora filmul Back To The Future le aduce amintiri placute. Astfel, produsul doreste sa reaprinda scanteia pasiunii pentru aceasta serie indragita.

### **NEEDS**

Nevoia de o noua viziune pentru seria Assasins Creed, avand in vedere ca penultimele doua jocuri (Assasins Creed Mirage si Assasins Creed Valhalla) s-au indepartat de ideea originala a jocului.

### **PRODUCT**

Jocul ofera jucatorilor sansa de a indrepta istoria. Prin calatoria in timp prin trecerea printre portale, acesta se gaseste in diverse scenarii in care are posibilitatea de a asasina diverse personaje istorice negative si de a modifica cursul istoriei.

### **BUSINESS GOALS**








Avand in vedere ca in prima saptamana Assasins Creed Mirage a obtinut 1,5 milioane de dolari in vanzari ( pretul jocului fiind in medie de 60 de dolari, asta insemnand 25000 de jucatori) si Back To The Future a generat 388.6 milioane de dolari la box office, estimam ca primul milion de dolari facuti de aplicatie se va atinge in aproximativ 6 luni de la lansare.

## Product features and functionalities

### STAKEHOLDER REQUIREMENTS

- ☐ Jocul trebuie sa aibe un storyline captivant
- ☐ In cadrul jocului se vor regasi diverse scenarii istorice
- ☐ Jocul o sa aibe un gameplay complex
- ☐ Jucatorul va putea calatori in timp
- ☐ Gameplay imersiv
- ☐ Interactiuni complexe cu Non Playable Characters
- ☐ Side questuri interesante
- ☐ Player trebuie sa progreseze mereu in storyline

### Features / functionalities already delivered

- ☒ Determined app UI/UX and selected first hand of assets
- ☒ Finalized the lobby where the players spawns in
- ☒ Finalized first level, which will serve as an introduction for new players
- ☒ Combat system implemented
- ☒ Working portals for an unique mode of transportation between the lobby and the levels
-  Adding more scripts to enhance user experience
-  Adding more themes and planning for the next levels
-  Adding intuitive menu that allows player to save its game
-  Possible improvements to allow low-end users to obtain minimum 30fps
-  Remake the player to a more humanoid person
-  Add more realistic enemies
-  Add NPCs to give a more meaningful

Product roadmap for next and future releases



# User Personas

PERSONA: Emily, The Historian Gamer

NAME

Emily, The Historian Gamer



## Background

Name: Emily Johnson

Age: 24

Occupation: Graduate Student in History

Interests: History, technology, science fiction novels, and gaming

Gaming Experience: Moderate; enjoys story-driven games and RPGs

## Motivations

Emily enjoys games that serve as a gateway to different historical periods, blending educational content with entertainment. She's drawn to titles like "Civilization" for their historical depth and "Assassin's Creed" for its immersive historical settings and narratives. Emily appreciates games that make her feel like she's part of history, allowing her to explore and interact with past eras in a meaningful way.

## Behaviors and Preferences

- Emily loves games that blend historical elements with fantasy or science fiction.
- Prefers single-player experiences but occasionally enjoys playing co-op with friends.
- Enjoys exploring in-game environments, not just rushing through missions.
- Emily doesn't really care about the difficulty of the game, she usually sets difficulty settings to easy.

## Goals with the Game

- Emily wants to be immersed in the rich historical settings of the game.
- She seeks a balance between challenging gameplay and an engaging storyline.
- Hopes to learn something new about different historical eras.

## Frustrations with Games

- Linear game design that limits exploration and player choice.
- Historical settings that are inaccurately portrayed or only superficially explored.
- Games that insists for you to pay to get certain advantage

NAME

# Alex, The Tech Tactician



## Demographic info

Name: Alex Martinez

Age: 32

Occupation: IT Specialist

Interests: Technology,  
action movies, gaming,  
and graphic design

Gaming Experience:  
Advanced; a regular  
player of action and  
adventure games

## Motivations

Alex is passionate about games that challenge his strategic thinking and technical acumen. He enjoys titles that require careful planning, problem-solving, and tactical decision-making, similar to games like "StarCraft" and "Dark Souls." These games resonate with his IT background, allowing him to leverage his analytical skills and attention to detail. Alex is particularly drawn to games with complex mechanics, where each decision impacts the game's outcome, reflecting his appreciation for intricacy and depth in both technology and gameplay. He values titles that offer a blend of strategic planning and adaptable gameplay, providing a mentally stimulating experience.

## Behaviors and Preferences

- Enjoys games that offer challenging combat and strategic gameplay.
- Frequently engages in multiplayer modes and competitive gaming.
- Prefers games with customizable characters and if he likes a skin he is ready to buy it.
- Likes to share gaming experiences and achievements on social media.

## Goals with the Game

- Engaging and dynamic gameplay that offers a variety of challenges.
- Strategic depth in combat, requiring careful planning and skill.
- Customizable characters and gear, allowing for personalization and strategic gameplay.
- Multiplayer modes that are well-designed, offering both competitive and cooperative play.
- Continuous updates or new content that keeps the game fresh and interesting as well as a bunch of post-game content.

## Frustrations with Games

- Repetitive or overly simplistic gameplay that lacks depth.
- Combat systems that are predictable or don't offer strategic variety.
- Limited customization options that restrict player creativity.
- Games that stagnate due to lack of new content or updates.

# Customer Journey



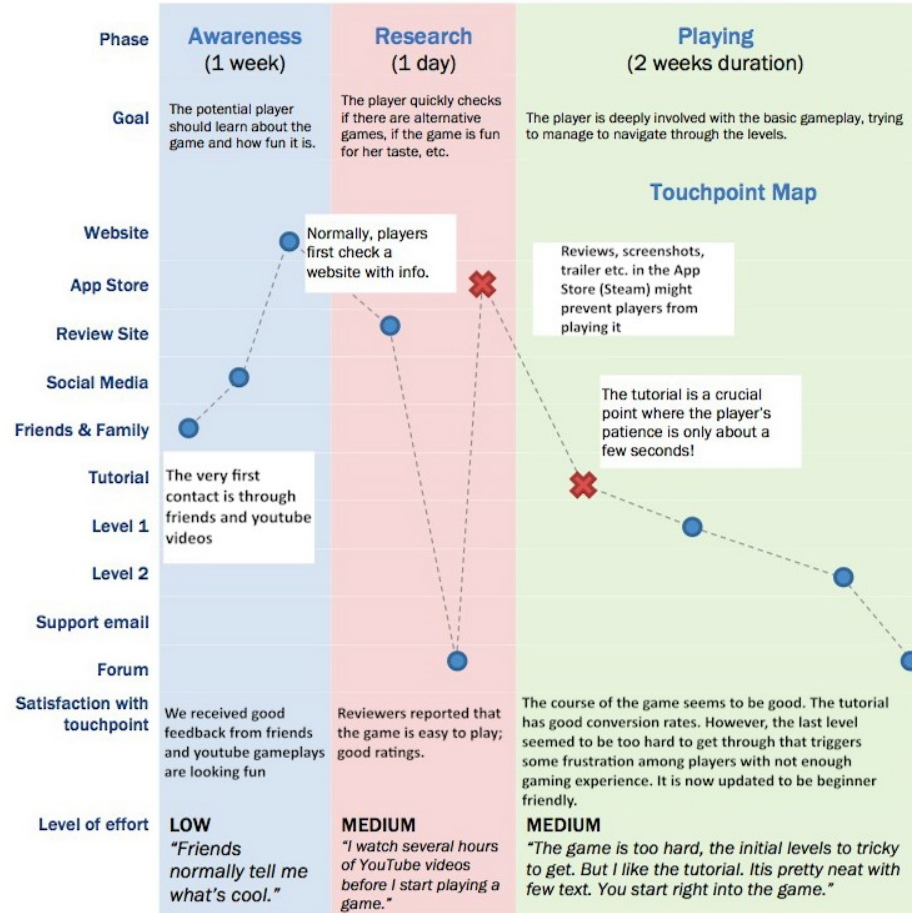
Assassin's Creed Back To The Future is a new vision for the series that gives the assassin the ability to travel through time. The game is aimed at gaming enthusiasts of the Assassin's Creed series and those for whom the movie Back To The Future brings back pleasant memories. Thus, the product aims to reignite the spark of passion for this beloved series.

*"I love the Assassin's Creed series, I finished all games."* - potential player

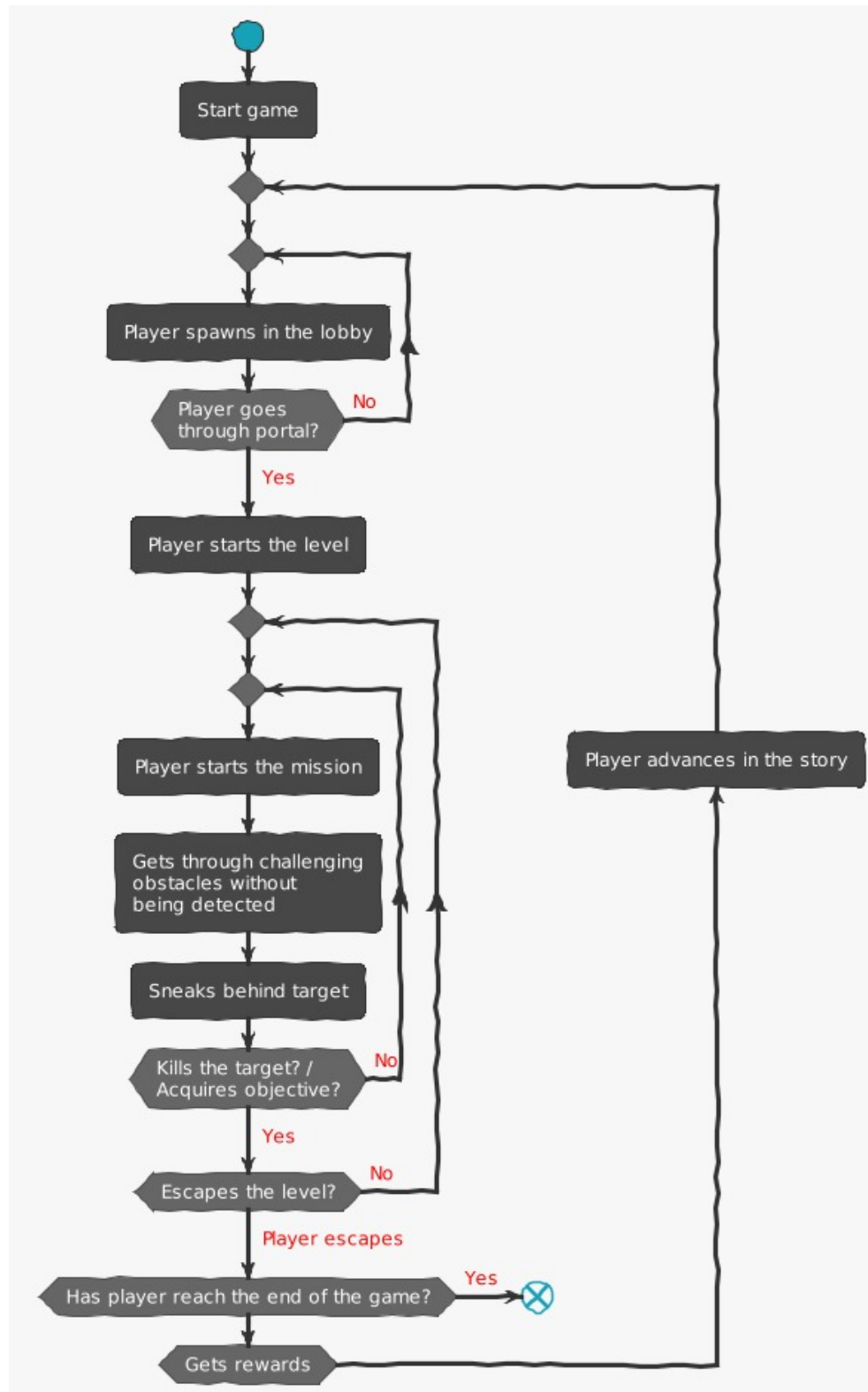
*"I love time travel movies and anything related."* - potential player

- Touch point
- ✗ Moment of Truth (critical)

Assassin's Creed Back To The Future Customer Journey Map



## Activity diagram



## Integration Points

In this game's development using Unity's component-based system, there are no traditional integration points, as all components become part of the game's internal structure once imported. However, we still specify external elements like assets and packages due to their close alignment with the integration point concept, even though they are fully integrated into the Unity environment.

Unity Asset Store Packages <-> The  
State of the Game

Folosim un Save System "Save Game Free - Gold Update" din cadrul Bayat Games, sub forma de pachet extern descarcat de pe Unity Asset Store. Acest pachet este important in unele script-uri si este apelat la inchidere si la deschidere pentru a salva/incarca starea jocului reprezentata prin diferite variabile, precum coordonatele jucatorului, obtinute prin attribute GameObject sau prin scripturi.

Assets <-> Mesh Renderers <->  
GameObjects

Utilizam diferite assets externe, dintr-un asset pack cu modele 3D pentru componente ce formeaza un castel (pereti, usi, turnuri etc). Aceste asset-uri sunt atasate de obiectele din scena ce formeaza harta, prin intermediul componentului integrat "Mesh Renderer."



## **Integration Points din interiorul Unity**

Punctele de integrare sunt gestionate de arhitectura component-based din Unity engine. Aceasta abordare se bazeaza pe compozitie, unde fiecare GameObject poate contine componente individuale, cum ar fi scripturi, colizoare si randere, care lucreaza impreuna pentru a crea functionalitati complexe.

### **-colliders <-> GameObjects**

Collidererele sunt componente native Unity, folosite pentru a gestiona coliziunile si evenimentele fizice din cadrul Unity Physics Engine. Mesh Colliders sunt atasate de obiectele ce definesc harta. De asemenea, anumite obiecte folosesc alte tipuri de collidere, precum BoxCollider si CapsuleCollider.

### **-UI <-> Player and Enemy Scripts**

Unele scripturi custom care determina controlul player-ului si al inamicilor interactioneaza cu elementele UI. Scriptul de atac declanseaza un cooldown reprezentat printr-o animatie a unei iconite de atac reprezentata ca element UI. Scriptul de atribut al player-ului defineste HP-ul sau, reprezentat prin alt element UI numit health bar. Acest health bar este afectat si de atacul inamicului.

### **-NPC <-> NPC Script**

Scriptul ce determina comportamentul NPC-urilor este atasat de obiectele NPC.

### **-Camera <-> Audio Source <-> Player Movement Script**

Camera main din scena este un element copil al player-ului, iar rotatia si pozitia sa variaza in functie de miscarile player-ului. Camera este pozitionata in dreptul capului player-ului, cu un offset pentru a sta in fata, se misca si se roteste pe axele X si Y in functie de inputul detectat de Player Script, dar este locked pe axa Z. Camera contine si un component Audio Source, care da play la sunete in functie de miscarile player-ului.

### **-Scenes <-> GameObjects**

Scenele din cadrul Engine-ului contin toate obiectele utilizate. Avem mai multe scene (Lobby, Map1) care asigura interactiunea dintre toate componentele mentionate mai sus intr-un environment fizic.

## **Non-functional requirements**

1. The game will consistently maintain a minimum of 60 frames per second at 1080p resolution on specified minimum hardware requirements (Intel Core i3, NVIDIA GTX 1050 2GB, 8GB RAM, Windows 10).
2. Level load times will not exceed 15 seconds on the minimum hardware setup (Intel Core i3, NVIDIA GTX 1050 2GB, 8GB RAM, Windows 10), as measured by internal testing to be completed two weeks before release.
3. The game will feature high-fidelity audio with a minimum bitrate of 256 kbps for music and 192 kbps for sound effects, ensuring clarity and depth, providing an immersive audio experience.
4. The game will maintain stability with a crash rate not exceeding 0.1% of total play hours monthly, equating to one crash per 1,000 hours of gameplay. Crash data will be monitored continuously post-launch, with immediate investigation and patching of any spikes in crash rates.
5. All game code will adhere to Microsoft C# Coding Conventions to ensure readability and maintainability. The codebase will be well-documented with at least 70% of classes and methods including inline comments clarifying their functionality. This documentation will be reviewed and updated with each release to facilitate the future addition of maps or objects. Compliance will be reviewed during each sprint by the lead developer, and full adherence must be achieved before release.
6. The game will implement an anti-cheat system using flags to monitor player movement, ensuring no player can fly or move at speeds exceeding the defined maximum gameplay thresholds. Any instance of a player surpassing these limits will be logged. An automated system for flagging and responding to such events will be in place by launch, with less than 0.01% false-positive rates.
7. To ensure an immersive experience, the rendering of hands and weapons will not clip through walls or other solid objects. This will be achieved by rendering these elements in a separate layer that is overlaid on the main scene. Compliance will be measured by a clipping incidence rate of less than 0.5% per interaction with the environment, to be evaluated through user feedback.

8. The camera will be designed to prevent clipping through walls or objects when the player is adjacent to them and looking parallel. A dedicated collision detection system for the camera will be implemented using built-in Unity Engine components, and must prevent camera clipping in 99% of test cases, measured across a series of movements across the map's edges.
9. The game will utilize the integrated functionality of the Unity engine to set inactive or cull objects outside of the camera's view, maximizing performance by ensuring resources are not used to render unseen elements. This optimization will leverage Unity's native occlusion culling and frustum culling features to reduce GPU usage by at least 20% compared to unoptimized rendering.
10. The game will include subtitle options with a minimum font size of 24 pixels and support for controller input to ensure it is accessible and playable by individuals with varying abilities and preferences. This commitment to accessibility ensures that subtitles are easily readable and that players have the option to use alternative input devices for a more inclusive gaming experience. These accessibility features will be available and fully functional from the game's initial release.

## **A set of user stories**

1. Time Travel Activation: As a user I want to have the ability to travel through portals to activate time travel teleport to various historical locations.
2. Assassination Missions: As a user I want to receive and accept various missions to assassinate historical figures.
3. Character Movement Mechanics: As a user I want control over the character's movements, including actions like jumping, crouching, and sprinting, using a keyboard and mouse, or a controller.
4. Character Combat Mechanics: As a user I want to engage in combat using a variety of attacks and defensive maneuvers to overcome adversaries in the game.
5. First Level Environment Design: As a user I want to have an engaging and aesthetically pleasing first level of the game, that immerses me in the game's setting.
6. Distinct NPC Types: As a user I want to have distinct types of NPCs, including civilians, enemies, and assassination targets, each with unique behaviors and appearances to distinguish them from one another, allowing me to strategize and interact within the game world.

7. **NPC Movement and Interaction:** As a user I want to have NPCs in the game that are capable of moving around the game environment in a realistic manner.
8. **NPC Combat Engagement and Vulnerability:** As a user I want to have NPCs that can engage in combat with me and are also vulnerable to attacks, allowing me to defeat or kill them as part of the game's challenges.
9. **Health and Damage System:** As a user I want my character's health bar to deplete upon taking damage, with ways to regenerate it during the gameplay.
10. **First-Person View:** As a user I want to have the models for the first-person perspective. I should see my arms and weapon models, to increase my immersion.
11. **Rewards:** As a player I want to have a possibility to receive certain rewards, such as in-game currency or unique items, upon successful completion of certain challenges and assassination missions, based on a score.
12. **Progression:** As a player I want to be exposed to randomized content so that every playthrough feels different, increasing challenges and complexity, providing a sense of progression and achievement.
13. **Comprehensive Sound Design:** As a player I want to have a comprehensive sound design, including a main title theme, attack and combat sounds, environmental audio, and other sound effects that enhance the overall gaming experience and immersion.
14. **First Level Tutorial Integration:** As a player I want to have the possibility to complete an integrated tutorial that guides me through the game's core mechanics and controls, ensuring a smooth introduction to the gameplay experience.
15. **Main Menu Access:** As a user I want to have access to a main menu to start a new game, continue the game, load a saved game, access settings menu, or exit the game.
16. **Game Settings Customization:** As a user I want to have the possibility to customize game settings, like graphics, sound, and controls, to enhance their gaming experience.
17. **Achievement System:** As a user I want to have a system of achievements or trophies that I can earn by completing specific tasks or reaching certain milestones, adding an extra layer of challenge and replayability.
18. **Social Integration:** As a user I want to have features that allow me to connect with my friends, share my progress, or compete in leaderboards, enhancing the community aspect of the game.
19. **Multiplayer modes:** As a user I want to have the ability of cooperative play with friends, or compete with them in multiplayer battles.
20. **Dynamic Day-Night Cycle:** As a user I want to have an in-game day-night cycle that affects the gameplay environment and NPC behaviors, adding realism and variety to the game world.

21. Post-Game Content: As a user I want to have additional challenges or storylines available after the main game is completed, encouraging continued engagement.

## **Acceptance Criteria for the stories in scope of the first dev sprint**

### **1. Time Travel Activation**

Given the player encounters in the lobby a portal

When the player goes through the portal

Then they should be teleported to the associated historical location

### **2. Assassination Missions**

Given the player traveled to the teleported location

Then a target appears, which should be assassinated by the player

Given the player traveled to the teleported location

When the player decides to go back through the portal

Then the mission is failed

Given the player traveled to the teleported location

When the player dies

Then the mission is failed with penalty points that are given to the player

Given the player traveled to the teleported location

When the player successfully assassinates the target

Then the mission is completed, player is granted with the reward and is returned to the lobby

### **3. Character Movement Mechanics**

Given the player is controlling the character

When they use keyboard, mouse, or controller inputs for movement,

Then the character should perform corresponding actions like jumping, crouching, or sprinting.

### **4. Character Combat Mechanics**

Given the player encounters an adversary,

When they engage in combat,

Then they should be able to use a variety of attacks and maneuvers.

Given the player encounters an adversary,  
When they engage in combat,  
Then the player could escape the adversary by using stealth mechanics.

#### 5. First Level Environment Design

Given the player starts the game,  
When they enter the first level,  
Then they should find an engaging and aesthetically pleasing environment that immerses them in the game's setting.

#### 6. Distinct NPC Types

Given the player is interacting with NPCs,  
When they encounter different types of NPCs,  
Then each type (civilians, enemies, assassination targets) should have unique behaviors and appearances.

#### 7. NPC Movement and Interaction

Given NPCs that are present in the game,  
When the game is in progress,  
Then the NPCs should move and interact realistically within the game environment, to give a sense of immersion.

#### 8. NPC Combat Engagement and Vulnerability

Given the player is engaging with an NPC in combat,  
When the NPC is attacked,  
Then it should respond with appropriate predefined behaviors and be vulnerable.

#### 9. Health and Damage System

Given the player's character is in gameplay,  
When they take damage,  
Then the health bar should decrease accordingly,  
And there should be methods available for health regeneration.

#### 10. First-Person View

Given the player is in a first-person view perspective  
When they look at their character's body parts and weapon,  
Then they should see realistic models of arms and the weapon they are holding.

#### 11. Dynamic Day-Night Cycle

Given the game is in progress,  
When time passes in the game world,

Then the environment should transition between day and night,  
And this cycle should affect gameplay and NPC behaviors.

## Prioritized Product Backlog

First Sprint Tasks: Time Travel Activation, Assassination Missions, Character Movement Mechanics, Character Combat Mechanics, First Level Environment Design, Distinct NPC Types, NPC Movement and Interaction, NPC Combat Engagement and Vulnerability, Health and Damage System, First-Person View, Dynamic Day-Night Cycle

Trello Board: <https://trello.com/b/ob98VbIH/scrum-board>

