

Odyssey  
Games and Play

Jason Xia  
Keya Shah  
Mariam Al Magboul  
Violet Hyun

Link to our presentation:

[https://www.canva.com/design/DAGEeBRAOz4/5Dw8rmvWIJC1sy-iNteJaw/view?utm\\_content=DAGEeBRAOz4&utm\\_campaign=designshare&utm\\_medium=link&utm\\_source=editor](https://www.canva.com/design/DAGEeBRAOz4/5Dw8rmvWIJC1sy-iNteJaw/view?utm_content=DAGEeBRAOz4&utm_campaign=designshare&utm_medium=link&utm_source=editor)

Link to our video demo:

[https://drive.google.com/drive/folders/1zbgXC9n6ZkRBZKY\\_Dd2IMNtgkqPkOK3c?usp=sharing](https://drive.google.com/drive/folders/1zbgXC9n6ZkRBZKY_Dd2IMNtgkqPkOK3c?usp=sharing)

### **Project Description & Theme**

For our final project, we have developed “Odyssey”. Our aim was to create a digital world that generates its own version of reality, providing a distinct framework for story and gameplay. In this endeavor, "Odyssey" presents a powerful and engaging theme: life itself. It's a journey that each person undertakes, filled with unique challenges, milestones, and transformations. By framing this universal experience as a game, "Odyssey" offers players a familiar yet freshly interpreted landscape to explore.

The theme resonates deeply as it mirrors the players' own life stages, making the gameplay not only relatable but also introspective. This connection between game mechanics and life's reality enhances emotional engagement, drawing players into a deeper narrative than found in typical platformer games.

This game uniquely appeals because, by navigating through childhood, adolescence, adulthood, and old age within the game, players of all ages are either reminded of past experiences or given a playful preview of what's to come. This dual ability to evoke nostalgia and spark curiosity about future life stages makes "Odyssey" an endlessly engaging experience.

"Odyssey" draws significant inspiration from the classic board game "The Game of Life," adapting its core concept of navigating through different stages of life and translating it into a dynamic, interactive single-player 2D video game format made on Unity.

### **Process and Implementation**

#### **1. Conceptualization and Storyboarding:**

The initial phase involved brainstorming and storyboarding the different stages of life, from childhood to old age. Each stage was conceptualized to not only represent a physical age but also to metaphorically depict the psychological and emotional challenges of that phase. This involved creating narrative arcs for each stage, ensuring a cohesive and engaging storyline that players could follow and relate to.

It is a Linear story as of now but we would like to make it with parallel paths to add more variety and diversity.

#### **2. Mechanics and Dynamics:**

The core game mechanics were designed to evolve with the player's progression through the stages. For instance, in the childhood stage, mechanics were kept simple and intuitive to reflect the learning phase of life, whereas, in adulthood, the mechanics became more complex, involving multitasking and strategic decision-making to mirror real-life adult responsibilities.

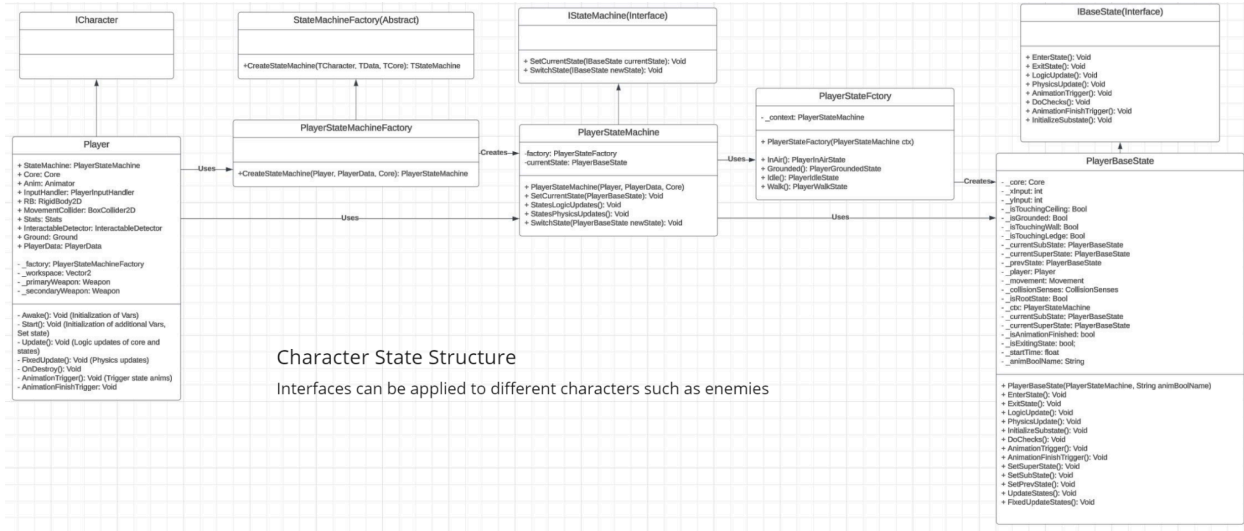
STAGE 1: CHILD (PLAYGROUND BACKGROUND)
OBSTACLES/LEARNING PROCESS: Walk, Jump, attack
Tutorial stage teaching the player how to move, jump, walk around the playground
Goal: reach the end of the playground
<b>Transition: door to a school</b>
STAGE 2: YOUNG ADULT (school background )
OBSTACLES: bullying, School/Uni work, teachers, Sleep, time management
Goal: Surpass all the challenges
<b>Transition: Graduation</b>
STAGE 3: ADULT (city/office background )
OBSTACLES: Jobs, financial issues, marriage
<b>Transition: Promotion</b>
STAGE 4: OLD PERSON
OBSTACLES: can't walk( speed reduced), lower stats, death

### 3. Assets

For this game, we used multiple different assets. One of the assets, the main character assets pack was paid. The rest of the assets used were either hand-drawn or designed by OpenAI.

### 4. Technical Implementation

For the implementation, we took an expandable method. We searched for different games with the elements we wanted to implement and observed their structure to create a structure that was as loosely coupled and manageable as possible. The main reference we used for the project is <https://github.com/Bardent/Weapon-System-Tutorial-Series-Unity>, But we changed its finite state machine into a hierarchical state machine so that it would be more straightforward to implement when we need to add more states such as roll, dash, climb, abilities, etc. we also looked up various patterns and structures to make the code clean and manageable. We also used Zenject(now Extenject), a dependency injection framework to inject the dependencies the game objects need to decouple the code and make the code easier to read. Although in the latter stages of development, due to time limitations we messed up some of the code structure and the code looks very messy when it goes to the main procedural stage, the fundamentals are very solid and we are sure it was well organized in the beginning, and with some effort it can be clean as before. There are too many components in the project, and it is impossible to show all of them in this single document, as this is a general report of the project, so we will show only a bit of structure of one component of the code: the character.



The base state part of the code can be further simplified if we divide more files, but it was close to the deadline and we had to rush to the main procedures so this wasn't refined. However, this was more than enough for our current scope.

We also added some touches to the game that serve as easter eggs. These touches usually cannot be triggered when playing the game normally. It requires the players to think out of the box to reach them, and most of the names of their hidden achievements are related to the game's implications for life.

## 5. Feedback Loops and Adjustments:

Continuous playtesting provided critical feedback, leading to adjustments in-game mechanics, difficulty levels, and interaction design. This iterative process ensured that the game was challenging yet accessible, providing a rewarding experience for players of all ages.

## Design Choices

### Rules and Player Actions:

- Childhood Stage:** Actions here were simple—jump, run, and interact. The rules were forgiving, with minimal penalties for mistakes, reflecting the nurturing environment of early life. It also served as a tutorial stage for the players to have a preliminary understanding of the controls and such.
- Young-Adult Stage:** Added complexity with performance evaluations (like exams in life), introducing the concept of consequences for action. Attack the books and dodge the teacher. This stage implies the overwhelming pressure a student gets while at school and university, and the player must fight back to overcome this pressure.
- Adulthood Stage:** This stage is mainly about when people get out of university into society. The player strives to climb the social status ladder, reflecting people's ambitions and hardships. This level has a time constraint, giving the player more pressure which brings mistakes, reflecting people's lives as a regular worker in the labor force. There are also side quests the player can choose on the stage. One is peer pressure, that will make the player lose 90 seconds on the timer. As a reward the player will get a times three multiplier to their score. Another is marriage, which brings a times two multiplier if the player can get both characters to the finish. This introduces

dual-control mechanics where players have to manage more than one character (the player and a clone), symbolizing the pressure and rewards people have when they choose this path.

- **Old Age Stage:** In this stage, The player's stats are gradually decreased, for example, decreased movement speed, decreased jump height, and decreased attack damage, reflecting the physical and mental changes of aging. The enemies in this stage are shown with the appearances of 16th-century plague doctors, and each time one dies, two more pop out, implying the increasing number of diseases the elderly are likely to get due to the degeneration of their immune system. It is also impossible to get to the end of this stage, implying no one escapes death.

### **Game Space Design:**

- **Visual and Thematic Consistency:** Each stage had a unique aesthetic that reflected the emotional tone of that life phase. Childhood stages were bright and colorful, adolescence was vibrant yet chaotic, adulthood was structured and sometimes monotonous symbolizing the monotonous work life, and old age was serene yet somber with a darker sunset background tones.
- **Environmental Interactions:** Each level was designed with interactive elements that players could engage with, adding depth to the gameplay. To add some fun challenges, one of the stages is a vertical platformer game i.e the finish checkpoint of the stage is vertically up as in contrast to the other stages
- **Scaling Challenges:** The challenges in each stage were scaled to ensure they were age-appropriate in terms of the game narrative. The difficulty not only increased as the game progressed but also adapted to the life stages' thematic complexity.

### **Final Game Space Decision**

The final game space was a culmination of thematic research, player feedback, and creative innovation. The decision was to create a game world that felt expansive yet connected, where each stage transitioned smoothly into the next, reflecting the seamless yet distinct transition between life's stages in reality. The game space was designed to be visually distinct for each stage but maintained a cohesive style and mechanics that adapted and evolved, keeping the player engaged and emotionally invested throughout the game. This comprehensive approach to implementing the concept of "Odyssey" ensured that the game was not only fun and engaging but also resonated on a deeper level with players, reflecting the rich tapestry of life's journey.

### **Playtest Assessment:**

Playtesting played a significant role in our development process, as the feedback we received from diverse testers helped us refine our game and enhance its overall clarity of interaction.

- **Adjusting Difficulty:** Through playtesting, we gained insights into the game's balance, particularly noticing its difficulty spikes in stage 2 when inexperienced players play it. We heard from various people that it is difficult to control the character, so we reduced the character's speed so that this adjustment can enhance player accuracy in reaching their intended destinations.
- **Enhancing User Experience (UX):** Feedback from playtesters significantly improved our game's user experience, especially in stage 1, which is a tutorial stage. It became evident that users were unclear about their objectives and how to navigate the character. Consequently, we implemented concise descriptions to guide users on what actions to take in various situations, clarifying how each key influences the character's movement.

### **Reflections:**

The initial concept for "Odyssey" was envisioned as a 2D text-based game with embedded mini-games, designed to explore the thematic journey of life through narrative-driven gameplay. The central theme aimed to encapsulate the different stages of life, integrating engaging story elements and challenges that players could navigate through textual interactions and decision-making. Our goal was to create a game that was not only fun but also offered deep reflective moments and learning opportunities through its life-stage simulations.

As we progressed through the scripting and storyboarding phase, it became evident that the text-based format, while rich in narrative potential, was lacking in dynamic engagement. The game didn't resonate as strongly during early playtests, and feedback suggested it was not as immersive or interactive as anticipated. Players were looking for more active participation and visual stimulation than text-based gameplay could provide. Realizing the need for a more engaging and interactive experience, we pivoted to a 2D platformer approach.

Regarding the results, it was a pity we weren't able to finish a fully organized project with clean code and structure. Many areas of the code are still tightly coupled and there was a time when we fixed one line of code, and seven places started malfunctioning because of that one change. This was undesirable, and we believe with more time and consideration of the project, we could achieve more. Also for now we don't have sound assets, as we didn't have time to do a sound handler. If we could add that it could add to the feedback of the game.

### **Goals and Expectations:**

Our primary goals were to create a game that was both entertaining and enlightening, offering players insights into life's various stages through compelling gameplay. While the initial text-based approach did not meet these expectations, the revised 2D platformer version succeeded. It not only met but exceeded our expectations in terms of engagement, playability, and thematic depth.

### **Future Plans:**

The current demo includes the main broad stages of life, but our vision for "Odyssey" includes expanding these into more nuanced sub-stages and introducing varying difficulty levels to enhance replayability and challenge. We also want to have more diverse scenes to portray the different life experiences that people have in the same stages of life. The positive reception at the IM Showcase has encouraged us to further develop these ideas, potentially adding more stages that reflect different life choices and outcomes, thereby enriching the game's narrative and interactive landscape. Also for now we don't have sound assets. But in the future we could add them to make the game more engaging.

### **Game as Meaningful Play:**

Odyssey is meaningful through both discernibility and integration. Throughout the game, the player can run, jump, walk and attack. On attacking enemies like assignments, job issues, plague doctors etc, players are trying to survive. At the same time players are aware, can see their stats and have the control to keep trying once they fall down thus making it discernable.

Integration can be seen through the process of survival in the game using health. The health bar, a constant indicator of your chances left in the game, acts as the motivation to keep surviving and progressing further. The game also has checkpoints like school, graduation, promotion and finally death to

transition to different levels in the game, thus keeping the player updated on what level and what part of the journey they are at. Therefore, since the game is both discernible and integrated, it encompasses Meaningful Play.

In Meaningful play from cultural contexts, "Odyssey"'s theme of life's journey is deeply embedded in the gameplay experience, guiding players through the various stages of existence and presenting them with challenges and choices reflective of real-life circumstances. Each stage represents a metaphorical chapter in the player's life, from childhood to old age, inviting reflection on personal experiences and future aspirations. The game also persuades players to make choices like making their character eat healthy or go to the gym if they want to survive in the game towards the end where plague doctors would multiply otherwise.

Through gameplay mechanics such as decision-making and goal-oriented tasks, players are encouraged to engage with the theme of life's journey on multiple levels. The challenges they face serve as metaphors for the obstacles and milestones encountered in real life, prompting players to consider the consequences of their actions and the paths they choose to take.

The Playtest feedback on the mechanics of the game was good and no changes were made apart from reducing the difficulty for some players.