**Designer Diary: Flix Odessey**

**1st Week (Done on 27/6/2023)**

In our preliminary design phase, my teammate (Bing En) and I have engaged in a thoughtful brainstorming session to outline the core elements of our upcoming 2D RPG game project. This genre provides us with a captivating canvas to weave intricate character development and an engaging narrative. At the heart of our concept stands our protagonist, Eris – a gifted young alchemist hailing from the serene village of Elderglen. Eris embodies a delightful blend of curiosity and intelligence, endearing her to players as a relatable character who often finds herself entangled in precarious situations.

Our chosen narrative path is one brimming with mystery and adventure, a foundation upon which we can craft a compelling storyline. We embark on this journey alongside Eris, who stumbles upon an ancient alchemical tome concealed within the depths of the forest. This fateful discovery propels the gears of destiny into motion. Within the tome lies a prophecy that foretells a cataclysmic threat poised to shatter the very world Eris inhabits. Her unique ability to decipher the cryptic text positions her as the sole hope to avert this impending disaster.

Guided by her newfound responsibility, Eris departs from the familiarity of her village, venturing beyond its borders for the very first time. Thus, her voyage commences, leading her towards encounters with a diverse ensemble of characters. Each character, imbued with their own personal narratives, contributes to Eris's growth by offering lessons and perspectives. The depth of these interactions enriches the overarching narrative, creating an immersive and emotionally resonant experience for players.

Through a meticulously curated series of challenges, Eris's mettle is tested – her intelligence, courage, and moral integrity are pushed to their limits. These trials, ingeniously designed, reflect the logical and well-reasoned decisions that underpin our game design process. As Eris navigates these hurdles, she evolves from a sheltered village girl to an inspiring heroine, poised to save the world. This transformation, though arduous, mirrors the challenges that real character growth entails, creating a satisfying and authentic progression.

In sum, our game's potential is electrifying. The alchemy-infused universe we've crafted, paired with Eris's journey of self-discovery, promises an immersive experience that resonates with players on multiple levels. As we move forward, we eagerly anticipate the realisation of our vision, confident that the strategic design choices we've made during this initial phase will pave the way for a truly remarkable gaming experience.

Here are the images of our desired 2D RPG game:





**2nd Week (Done on 3/7/2023)**

During our second week of development, we engaged in a rigorous exploration and research phase. It became apparent that our initial ambition of creating a 2D RPG game within our stipulated timeframe presented formidable challenges. Recognizing the need for a balanced scope, we took a pragmatic approach to refining our concept.

After careful deliberation, we collectively decided to transition from the intricate world of a 2D RPG to a more manageable and equally captivating genre – the 2D platformer. This shift was grounded in the consideration of time constraints and the desire to maintain a high standard of execution. Our choice was further informed by the suitability of the Game Maker engine, renowned for its user-friendly interface and streamlined development process.

As we solidified this new direction, we leaned into the creative vision that had already begun to take shape in our minds. The vibrant tapestry of the platformer's gameplay mechanics and visual theme was carefully honed to align with our newfound scope.

Our immediate focus shifted towards the procurement of essential game assets. With precision, we scoured for images, tiles, backgrounds, and character designs that resonated with our envisaged aesthetic. Each asset was scrutinized not just for its visual appeal, but also for its potential integration into our evolving platformer concept.

This phase embodies a testament to the logical progression of our design process. We made informed decisions based on a holistic assessment of our project's demands, timeline, and desired outcome. By embracing the 2D platformer genre and selecting the Game Maker engine, we've positioned ourselves for a more streamlined development journey while retaining the essence of engaging gameplay and visual storytelling.

As we proceed forward, we do so with a clear and refined vision. The assets we've meticulously collected will serve as the building blocks of our platformer world, enhancing our ability to craft an immersive and enjoyable player experience. The journey ahead promises to be one of creativity, collaboration, and dedication as we shape our newfound direction into a cohesive and delightful gaming experience.

The overall game idea/storyline for 2D platformer game:  
**Protagonist:**

A young and adventurous creature named "Flix", is chosen by the ancient spirits to restore balance. Flix must journey through each realm, overcoming increasingly challenging platform levels, to retrieve the pieces of the Orb and restore harmony.

**Storyline:**

Our game could be set in a world where each realm is governed by a unique element (fire, water, earth, air, etc.). The harmony of these realms is maintained by a mystical artifact known as the "Elemental Orb". However, an evil sorcerer has the Orb, causing chaos and imbalance among the realms. Each piece of the Orb has landed in a different realm, altering its nature and making it hostile.

**Gameplay Elements:**

Each realm could have unique gameplay mechanics related to its element. For example, the earth realm could have destructible terrain, the water realm could have underwater physics, and the air realm could have wind currents affecting movement. This would keep the gameplay fresh and engaging, as players would need to adapt to the changing mechanics.

As the game progresses, the levels would become more challenging, reflecting Flix's growing skills and maturity. The final level could be a confrontation with the sorcerer, where Flix must use all the skills he's learned to defeat him and restore the Orb.

Remember, it's crucial to playtest and iterate on your game design to ensure it's fun and engaging. Listen to player feedback and be willing to make changes based on their input. This will help you create a game that players will love and keep coming back to.

**2nd Week (Done on 5/7/2023)**

During our second week of development, we embarked on a pivotal phase that involved shaping the foundations of our game's mechanics within the Game Maker engine. Prior to diving into the intricacies of coding character movement and enemy behaviour, I engaged in comprehensive research to harness the capabilities of Game Maker for crafting a seamless platformer experience. While the online tutorials initially portrayed Game Maker as user-friendly, I encountered a deeper level of complexity when attempting to implement the precise mechanics needed for the game's architecture.

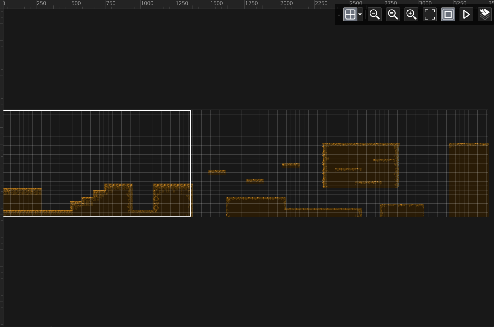
To address this challenge, I diligently delved into shaping the ground and tiles that would define our game's terrain. While importing sprite assets for tiles, characters, enemies, and backgrounds, I meticulously adjusted their sizes to align with the desired visual aesthetic. This process served as a testament to our logical design decisions – capitalizing on existing assets while ensuring seamless integration into the platformer environment.

To create a coherent and interactive terrain, I employed a strategic approach. Utilizing the imported sprite as a Tile Set, I deconstructed it into smaller, manageable pieces measuring 16 by 16 pixels. This granularity allowed for precise placement within the room, forming the foundational ground layout upon which players would traverse. A dedicated tile layer was then established, solidifying the groundwork of our platformer.

Our design process exhibited a well-reasoned approach as we meticulously considered the spatial dynamics of the game. For the initial level, we opted for a modest room width of approximately 3500 pixels. This calculated decision aimed to acclimate players to the game's mechanics before progressively increasing the challenge. As subsequent levels would encompass more intricate layouts, this progression aligned with our aspiration to offer players both an engaging learning curve and escalating difficulty as they journey through the game.

As we ventured into the practical intricacies of level design and character mechanics, our foundation remained rooted in the judicious research and analysis we conducted. The challenges encountered in shaping the ground, optimizing sprite assets, and ensuring a balanced level design underscored the measured approach we adopted to realize our game's vision. This phase not only laid the groundwork for our platformer but also embodied the thoughtful and strategic decisions that underpin our game's evolution.

A screenshot of a video game

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**2nd Week (Done on 7/7/2023)**

Today, we continued to shape the core elements of our platformer game. Building upon the groundwork we established for the game's terrain, we seamlessly transitioned into integrating the character sprite – a crucial facet of the player's interactive experience.

Having previously acquired suitable character assets, we embarked on the process of infusing them into our game. The initial step involved importing the character image as a sprite. This action, though seemingly straightforward, was underpinned by careful considerations that reflect the rationality of our design approach.

Upon importing the character sprite, the subsequent step involved meticulously converting the static image into dynamic frames, capturing distinct movements that the character would exhibit. This meticulous frame-by-frame approach encompassed trimming each frame to isolate individual movement sequences. This calculated decision was a testament to our commitment to fluid and authentic character animation.

Furthermore, the sprite, now refined into separate frames, was imbued with functionality by importing it as an object within the game environment. This process fused the artistic aspect with the interactive one, as the character was no longer just an image, but a dynamic entity poised to navigate the immersive game world.

The enthusiasm that accompanies witnessing the gradual realization of our game vision was palpable during this phase. The incremental implementation of the character sprite showcased the logical and systematic nature of our design process. This step-by-step approach not only ensures a structured development journey but also underscores the satisfaction that stems from seeing tangible progress.

As we meticulously interwove the character sprite into the game, we remained attuned to the careful considerations and decisions that underscored each step. This intentional process reflects our commitment to crafting a harmonious and captivating player experience. The joy and fulfilment derived from observing the game take shape underscored the significance of our well-reasoned and strategic design choices.

**2nd Week (Done on 8/7/2023)**

Today, we made significant strides by enhancing various elements of our platformer game. Following the successful implementation of the character sprite, our focus shifted to crafting an immersive and visually captivating background.

With a discerning eye, we explored diverse themes and designs for the background, ultimately settling on a serene forest motif to underscore the ambiance of our initial game level. Informed by a logical and well-reasoned process, this choice aligns with the storyline and character of our game, creating a harmonious fusion between narrative and aesthetics.

A pivotal design decision emerged when deliberating the medium for our background imagery. After thoughtful comparison, we determined that a GIF-based background would best suit our intentions. This choice was driven by the desire to infuse an extra layer of dynamism into the player's visual experience. The subtle, animated movement of the GIF background lends a sense of life to the game environment, amplifying its overall allure.

Incorporating the GIF background into our game room was a meticulous process, reflective of our strategic design approach. However, an unforeseen challenge arose when the dimensions of the GIF background didn't seamlessly align with the room's proportions. This hurdle demonstrated the adaptability and flexibility inherent in our design process.

With a commitment to maintaining the visual integrity of the background while ensuring seamless alignment with the room's dimensions, we devised a solution. Rather than resorting to duplicating or stretching the background, we undertook the task of programming the background to move in tandem with the character. This creative decision showcases our dedication to delivering a polished and harmonious visual experience that doesn't compromise on aesthetics or functionality.

As our platformer game room evolved to encompass a captivating character sprite, a meticulously designed terrain, and a dynamically animated GIF background, we found ourselves poised on the cusp of realizing our envisioned gaming experience. Each design choice and implementation during this phase adhered to a systematic process rooted in logical reasoning and thoughtful consideration. This iterative refinement attests to our unwavering commitment to crafting a game that marries engaging gameplay with visual enchantment.

**3rd Week (Done on 10/7/2023)**

As we move on to the third week, we ventured into a new realm of game design – character movement and attack skills. This phase marked a departure from our previous implementations, presenting us with fresh challenges that demanded analytical thinking. Embracing this opportunity for growth, we eagerly accepted the challenge.

Navigating character movement required us to meticulously devise a system that seamlessly integrated with our existing mechanics. The process began with the creation of an "idle" sprite, representing the character's default stance. This sprite animation would be activated when the character was stationary on the game's terrain, elegantly woven into our code logic within an 'else' statement. This decision reflects our strategic approach, ensuring a fluid and cohesive visual experience.

Building upon this foundation, we crafted a running movement mechanism for the character. Utilizing keyboard inputs, we meticulously programmed the character's responsiveness to 'D' and 'right' keys for rightward movement, and similarly for leftward movement. This movement, when executed, triggers the running animation, breathing life into the character's motion.

To enhance gameplay dynamics, we introduced both crouching (down) and dashing movements. This strategic addition not only elevates the character's mobility but also diversifies the range of player interactions within the game environment. This nuanced approach to movement underscores our commitment to creating a dynamic and engaging player experience.

Transitioning to the realm of attack skills, we embraced the challenge with enthusiasm. Four distinct attack modes were implemented, each intricately tied to specific key inputs. This symphony of attacks was orchestrated through 'else if' statements, enabling us to execute a different attack sprite with varying image speeds for each type of attack. This measured approach maintains a balanced and immersive combat experience while showcasing the logical flow of our design process.

As our character adeptly maneuvered and executed attacks within the game room, we stood at the precipice of heightened gameplay potential. The judicious implementation of character movement and attacks reflects our dedication to creating a captivating and well-rounded gaming experience. With the foundations of movement and combat now firmly in place, our anticipation grows as we look forward to navigating the intriguing challenges that await us in the journey ahead.

**Idle (default movement): Running movement: Attack movement:** A screenshot of a video game

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**3rd Week (Done on 11/7/2023)**

Today, we delved deeper into the realm of game logic, fortifying our platformer experience with essential mechanics. The successful integration of gravity mechanics marked a pivotal stride, offering a natural and immersive element to our game dynamics.

Implementing gravity mechanics was an endeavor marked by thoughtful planning and meticulous execution. The foundation was laid by establishing a variable within the game's creation event, aptly named "gravity," set to a value of 0.4. This value determined the strength of gravity's pull on the character, anchoring it to the ground. Correspondingly, we introduced a variable named "onGround," thoughtfully set to "false." This variable enabled us to discern whether the character was firmly grounded or not, underpinning the logic that governs character movement and interaction with the environment.

The same day bore witness to another significant advancement – the incorporation of double jump mechanics. This gameplay enhancement was strategically introduced to elevate the player experience and infuse a layer of excitement into the character's movements. Recognizing the potential for increased engagement, we initiated the creation of variables essential to the double jump functionality.

To manage the double jump feature, we meticulously defined variables "remainingJumps" and "maxJumps." The former was set to "maxJumps," which in turn was assigned a value of 2. This design ensured that the character possessed the ability to execute two jumps in succession – a double jump – without exceeding the set limit. By thoughtfully establishing these variables, we enforced a maximum jumping threshold, precluding the character from achieving a triple jump scenario.

The astute integration of gravity mechanics and double jump functionality was indicative of our systematic design process. Each decision, from variable values to logical checks, was approached with care and rationale, resulting in a harmonious and engaging gameplay experience. As we expanded our game's logic, we solidified our commitment to creating a nuanced and meticulously crafted platformer adventure.

A computer screen shot of colorful text

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**3rd Week (Done on 15/7/2023)**

Today, we shifted our focus to a crucial aspect of our game – the implementation of enemies and their integration into the game environment. This phase marked a pivotal transition as we expanded the scope of interactive elements within the game.

Much like our approach to character implementation, introducing enemies was guided by a logical and systematic process. With pre-acquired enemy sprites as our foundation, we initiated the process of translating these static images into dynamic frames. This transformation allowed us to capture diverse movements and actions, readying the enemy for interaction within the game world.

Following this, we seamlessly integrated the enemies as objects, placing them strategically across the room. This placement was a deliberate choice informed by the principles of level design, ensuring that challenges were distributed evenly to maintain player engagement.

At this juncture, while enemies occupied their designated positions, they were yet to possess the power to inflict damage on the character. Through diligent research and analysis, we embarked on equipping both the character and the enemy with mechanisms that would underscore the game's challenge and engagement.

Initiating this process, we delved into the character's step event. Here, we incorporated code that would come into play when the character intersected with an enemy. When this collision occurred, the character's HP was reduced by one unit, creating a tangible sense of peril. Additionally, we established a logic that, upon the character's HP reaching zero, would trigger the characters respawn at a predetermined location. Moreover, this respawn was coupled with the resetting of the character's HP to its default value of 6.

As the mechanics took form, we encountered the thrill of witnessing the damage system come to life. Our persistence and analytical thinking bore fruit as we navigated the intricate logic that governed this process. Despite initial challenges, the meticulous refinement of our code and its underlying logic enabled us to achieve the desired outcome – a functional damage system that seamlessly aligned with our game's dynamics.

The evolution of our game through the incorporation of enemies, coupled with their damage mechanics, reflects a strategic approach rooted in logical reasoning. This phase illustrates our commitment to crafting a game that challenges players while maintaining an engaging and immersive experience. As our project advances, we stand prepared to continue refining and expanding upon these foundational elements, creating a captivating and well-rounded gameplay experience.

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**4th Week (Done on 18/7/2023)**

Coming to the fourth week, we embarked on a creative endeavor to enhance the visual appeal and gameplay dynamics of our platformer. The addition of a river/water feature across the room emerged as a strategic decision to infuse a novel dimension into the game environment.

The implementation of this feature was a thoughtful process guided by clear logic. We initiated the process by importing a water sprite, which was subsequently transformed into an object within the game. This object was then artfully positioned within the room, resulting in a seamless integration of the water element.

While the initial integration was visually pleasing, the mechanics still needed refining to align with the gameplay's intentions. To imbue the water with interactive depth, we introduced a 'Danger Zone' object, layered atop the water object. This object was endowed with a simple yet pivotal function – triggering character damage upon contact. The code underlying this mechanism was designed to reduce the character's HP by one upon touching the 'Danger Zone,' effectively capturing the essence of water's hazard.

To maintain a fluid and immersive visual experience, we concealed the 'Danger Zone' object's visibility. This astute decision allowed players to focus on the water element itself, contributing to the game's aesthetic coherence.

However, an unforeseen challenge arose – characters plummeting into the water were experiencing instant death. After thorough investigation, we identified the culprit: the cooldown effect. This discovery paved the way for the implementation of a cooldown damage feature. The mechanism was elegantly simple, involving the creation of a damage cooldown variable set to zero, paired with a defined cooldown time of 2 seconds (equivalent to 120 frames in Game Maker, where 60 frames equal 1 second). This cooldown code was seamlessly integrated into the character's step event, resolving the instant death issue and enhancing the game's logical consistency.

The iterative refinement of our game's mechanics and visual elements typifies our commitment to delivering a polished and enjoyable gameplay experience. This phase exemplifies our measured approach to troubleshooting and enhancing gameplay, rooted in logical reasoning and a thorough understanding of the engine's mechanics. As we navigate the intricacies of design, we remain dedicated to crafting a game that resonates with players through its immersive world and engaging challenges.

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A black background with green and purple text

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**4th Week (Done on 20/7/2023)**

Today, we tackled a nuanced challenge related to character-enemy interactions within our platformer game. While we had successfully implemented a system where the character takes damage upon encountering an enemy, we embarked on the endeavor to establish a mechanism allowing the character to retaliate.

This phase introduced a layer of complexity that demanded careful consideration and logical analysis. Initially, our implementation dictated that when the character's sprite came into contact with an enemy, the enemy would suffer damage. However, upon closer examination, we recognized the need for a more nuanced approach – one that accounted for the character's attack action without conflating it with mere physical contact.

To address this challenge, we initiated the creation of a designated hitbox for the character's attack action. This hitbox, closely resembling the character's sword position, was manifested as a sprite object. Our design philosophy was guided by a keen understanding of hit detection principles, ensuring that only intentional attacks would trigger enemy damage.

Creating a cohesive hitbox system was no small feat. Our approach necessitated careful orchestration to ensure precise alignment with our intended gameplay dynamics. The crux of our solution lay in the intricate relationship between the character's movements, the hitbox's placement, and the enemy's vulnerability zone.

In a strategic move to ensure fair and accurate gameplay, we employed mechanisms that activated enemy damage solely when the enemy intersected with the hitbox. This approach negated the unintentional triggering of attacks through incidental contact.

Moreover, recognizing the influence of character orientation on attack execution, we introduced an offset feature to the hitbox system. This consideration allowed the hitbox to align dynamically with the character's facing direction, bolstering the overall accuracy and realism of attack interactions.

The development of this attack mechanics was rife with challenges that demanded our analytical prowess and dedication. The successful resolution of these hurdles underscored our commitment to producing a game that seamlessly integrates complex gameplay systems while remaining intuitive and engaging for players.

As we meticulously refined the interaction between characters and enemies, we remained steadfast in our goal to create a balanced and satisfying gameplay experience. This phase exemplified our resolute approach to problem-solving, characterized by logical reasoning and a relentless pursuit of gameplay excellence.

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**5th Week (Done on 24/7/2023)**

During the fifth week of our developmental journey, we delved into the realm of game enhancement, centering our efforts on elevating the game's complexity, difficulty, and overall engagement. This phase was marked by the strategic inclusion of an array of enemy sprites, each intricately designed to contribute to the game's evolving dynamics.

In a calculated move to diversify gameplay challenges, we embarked on a multi-pronged approach. We augmented the arsenal of enemy sprites, meticulously tailoring each sprite's hit point (HP) system to align with specific encounter scenarios. This considered addition effectively imbued the game with a range of foes, each requiring distinct strategies and approaches for the player to overcome.

Yet, our focus extended beyond numerical attributes alone. Recognizing the role of diverse enemy behaviors in heightening gameplay intrigue, we invested in crafting a range of enemy types. Each enemy boasted distinct attack patterns and movement behaviors, adding depth to the encounters and a layer of strategic thinking required of players.

An exciting aspect of this enhancement initiative was the integration of animated enemy sprites, sourced from Pinterest.com. These GIF-based sprites injected a pulsating vitality into the game environment, imbuing enemies with a lifelike quality that resonates with players. This dynamic visual element was an intentional choice to amplify engagement, fostering a sense of immersion that extends beyond static imagery.

For enemy sprites rendered as static images, we embraced a meticulous process to ensure seamless integration. Each image was painstakingly converted into individual frames, meticulously synchronized to facilitate smooth movement and interaction within the game's dynamic world. This dedication to detail underscored our commitment to crafting a comprehensive and captivating gameplay experience.

Our pursuit of enhancing the game's difficulty, diversity, and engagement was guided by a strategic design approach. Each enemy type, whether animated or static, was carefully chosen and integrated to strike a harmonious balance between visual appeal and gameplay challenge. This phase not only enriched the player's interactions but also upheld our commitment to delivering a platformer adventure that captures the imagination while pushing players to navigate an intricate tapestry of challenges.

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**5th Week (Done on 25/7/2023)**

Today, our focus shifted towards augmenting the immersive experience of Room Level 1. Recognizing the power of audio in heightening atmospheric engagement, we embarked on the integration of background music to enrich the player's interaction with the game world.

Our foray into this auditory dimension commenced with the selection of a fitting music track in MP3 format. This choice was a pivotal one, as it dictated the emotional resonance and ambiance that would permeate the gameplay. The logical reasoning behind this selection was rooted in our desire to create a seamless synergy between visual and auditory stimuli, culminating in a holistic and captivating player experience.

With the music track selected, we seamlessly integrated it into the game through a series of strategic steps. We established a dedicated sound object within the game engine, thereby gaining granular control over the music's playback dynamics. This move aligned with our design philosophy of meticulously managing every element that contributes to the player's experience.

A critical juncture arose when we translated this sound object into a functional aspect of the gameplay. By strategically placing the sound object within Room Level 1, we ensured that the music would dynamically initiate as players entered the room. This deliberate design choice fostered an immediate sensory connection between the player and the game environment, culminating in a harmonious fusion of audio and visual stimuli.

Our music selection process was governed by a thoughtful analysis of the level's theme and ambiance. This ensured that the chosen track harmonized seamlessly with the visual aesthetics, enriching the immersive experience and effectively setting the mood for gameplay.

The introduction of background music to Room Level 1 exemplified our commitment to holistic game design. Our consideration of both visual and auditory components underscored our dedication to delivering an immersive and enjoyable gaming experience. As we navigated the integration of background music, we upheld the same logical and well-reasoned design approach that characterizes our entire development journey.

A screen shot of a computer

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**5th Week (Done on 26/7/2023)**

Today, my fellow teammates and I have embarked on an intriguing endeavour – the implementation of a captivating knockback effect for our character. Our shared goal is to infuse the game with dynamic interactions that resonate with players, transforming mere collisions into immersive and memorable experiences.

Central to our design approach was a commitment to crafting a knockback effect that seamlessly integrates into the game's mechanics. Our objective was clear: to impart a sense of weight and momentum to the character when impacted by enemy attacks. The logic behind this approach lies in our desire to create an authentic and engrossing gameplay environment that extends beyond mere visuals.

In pursuit of this dynamic experience, we intricately calibrated the knockback effect. Upon collision with an enemy object, we orchestrated a calculated force in the opposing direction of the enemy's attack. This force-induced movement gave the character a tangible sense of being pushed back, effectively conveying the impact to players in a visually impactful manner.

However, our intentions extended beyond mere visual flair. We recognized the potential for added challenge and engagement that the knockback effect could introduce. This calculated decision necessitates players to recalibrate their movements and timing to navigate subsequent obstacles and hazards. This multidimensional layer of gameplay depth fosters an environment that demands skilful adaptation and strategic decision-making.

In crafting the knockback effect, balance was paramount. We conscientiously evaluated the variables at play – character health, enemy strength, and level design – to ensure that the knockback effect harmoniously aligns with the broader gameplay experience. This deliberate approach prevents the knockback effect from turning into a source of frustration, maintaining a fine equilibrium between challenge and accessibility. By striking this balance, we ensure that players remain actively engaged and motivated to surmount the various challenges they encounter.

Our dedication to refining the knockback effect was validated through thorough playtesting. The effect not only prevents the character from merely passing through enemies but also introduces an element of thrill and immersion that transforms gameplay interactions into impactful moments.

As a united team, our design process reflected logical reasoning and meticulous planning. Through the knockback effect's implementation, we're committed to creating a game that not only captivates players visually but also resonates with them on a visceral level, evoking genuine excitement and strategic engagement.  
A computer screen with text and numbers

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**5th Week (Done on 29/7/2023)**

Following the successful integration of background music, we collectively decided to amplify the audio landscape by introducing character attack sound effects. This endeavour aimed to further immerse players in the gameplay and enhance the experiential dimension of character actions.

Fortuitously, our prior experience with sound integration paved the way for a seamless execution of this addition. We understood the process intuitively and leveraged the insights gained from our earlier efforts. This familiarity significantly streamlined the implementation, allowing us to focus on curating a selection of sound effects that would complement the character's attacking actions.

The mechanics required for this incorporation were refreshingly straightforward. Rather than physically placing the sound object in the room, as we had with background music, we opted to trigger the sound within the character's attack state. This approach was logically rooted, ensuring that the sound aligned precisely with the action it accompanied – the character's attack.

Diversity was our ally in this undertaking. To prevent auditory monotony, we embarked on a quest to source a variety of sound effects. Our meticulous search yielded a collection of distinct sounds, tailored to correspond with the different types of character attacks. This deliberate diversity ensured that players encountered a varied auditory experience, enhancing immersion and engagement.

This phase did not unfold without considerations. As we sifted through potential sound effects, we remained vigilant in maintaining thematic cohesion. Not every sound effect seamlessly aligned with our game's ambiance, necessitating multiple iterations and trial-and-error sessions to identify the most fitting options.

The playtesting phase proved invaluable in discerning the optimal sound effects. Some initial selections, although theoretically suitable, proved jarring in practice. Our persistent efforts to refine the auditory experience ultimately yielded results, as we narrowed down the sound effects to those that harmonized seamlessly with our game environment.

We maintained our strategic approach to design, backed by logical reasoning. This approach not only facilitated the seamless integration of sound effects but also underscored our commitment to creating a cohesive gameplay experience that resonates with players on multiple levels. The addition of character attack sound effects further illustrates our dedication to crafting a game that transcends visual elements to captivate players across the senses.

A screen shot of a computer program

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**6th Week (Done on 31/7/2023)**

For this week, we reached an important realization – the need for a dedicated home page or start-up menu for our game. This insight prompted us to address the absence of a cohesive entry point that would engage players and set the stage for their gameplay experience.

To address this, we introduced a distinct start-up room that would serve as the initial point of interaction for players. Guided by our commitment to a holistic player experience, we curated a pixel GIF background that seamlessly aligned with our game's thematic essence, effectively establishing the desired mood right from the outset.

In our quest for a comprehensive menu, we meticulously designed and integrated a series of buttons, each with a distinct function – play, options, stats, and exits. These buttons were a testament to our intention to provide players with an immersive and user-friendly interface that guided their interactions. The play button, notably, served as the gateway to Room Level 1, epitomizing our intent to ensure a seamless transition into the gameplay experience.

Our attention to auditory immersion was also evident in this phase. We introduced sound effects that accompanied button navigation and selection, rendering the menu experience dynamic and engaging. These auditory cues were thoughtfully chosen to amplify the interaction process while maintaining thematic consistency.

The core implementation of the menu was executed through a menu object, which assumed a central role in orchestrating the menu's functionality. We designed a draw event to render the textual elements, while the create event was utilized to initialize variables and options. The step events were where we imbued functionality, dictating how the buttons would respond to player input.

While this implementation phase proceeded relatively smoothly, we did encounter a challenge involving the navigation cursor. A triangle pointer, designed to guide menu navigation, exhibited unexpected behaviour. The cursor tended to veer consistently downward despite the option to move both upward and downward. This issue stemmed from misalignment in the draw events, wherein the cursor was being placed outside the valid menu range.

To overcome this challenge, we harnessed a clamp function. This function imposed a limit on the cursor's movement within a predefined range, preventing it from exceeding the bounds of valid options. The clamp function safeguarded against erroneous cursor movements and underscored our commitment to a seamless and error-free player experience.

This phase exemplified our proactive approach to addressing gameplay dynamics beyond mechanics, catering to elements that bolster player engagement. The start-up menu not only set the tone for the game but also served as a tangible indicator of our meticulous design process. Our logical and well-reasoned approach was palpable in our strategic choices and the subsequent resolution of challenges, reinforcing our dedication to delivering an engaging and immersive game.

A video game screen with a sword in the water

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**6th Week (Done on 2/8/2023)**

After sifting through a selection of fonts, we decisively settled on the "VCRosdNEUE" font. This choice wasn't arbitrary; its pixelated aesthetics harmonized seamlessly with our game's visual identity, underscoring our commitment to a cohesive and immersive experience.

This stage was marked by a dual focus. Firstly, we undertook the integration of the selected font into Game Maker. This process was straightforward, as we seamlessly imported the "VCRosdNEUE" font from an online source. Its pixelated charm resonated perfectly with our game's overarching theme, cementing its status as the final font choice. This aesthetic alignment underscored our meticulous approach to design, ensuring that every aspect of the game, including typography, adhered to a unified visual narrative.

In a parallel endeavour, we embarked on creating a hit flash effect that would enhance the game's visual feedback during combat interactions. This effect, a carefully orchestrated visual cue, was designed to dynamically communicate to players that damage had been inflicted upon either the character or an enemy. The intent was to transcend mere numerical indication (HP reduction) and provide a tangible visual response to enhance player immersion.

However, the journey towards this dynamic visual enhancement encountered a minor hurdle initially. As we began coding the hit flash effect, it exhibited unintended behaviour – the character's blinking persisted indefinitely after a single hit. This challenge stemmed from a flaw in the code logic.

However, a serendipitous discovery altered the trajectory of this endeavour. We stumbled upon a built-in shader effect within Game Maker that promised to streamline the implementation of the hit flash effect. By creating a shader in the engine and invoking its function upon character or enemy hits, we eradicated the need for extensive manual coding. This revelation drastically simplified the process, bolstering our efficiency in realizing our visual vision.

The hit flash effect, enabled by the shader, was integrated seamlessly into both character and enemy dynamics. The invocation of the shader function within the draw events of both entities ensured that every hit resulted in a blink-like visual cue. This real-time response effectively communicated damage impact to players, elevating their engagement and fostering a heightened sense of interaction.

This phase epitomized our design ethos – a seamless fusion of aesthetics and function underpinned by logical reasoning. The finalization of font choice and the incorporation of the hit flash effect were not just superficial embellishments, but integral components that reinforced player engagement and immersion. As we navigated the challenges and solutions, our commitment to a refined and resonant game experience remained steadfast.

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**6th Week (Done on 4/8/2023)**

Today, our creative efforts focused on an intricate endeavour – the integration of environment sprites within Game Maker. This phase marked a significant stride as we pursued the augmentation of our game's visual appeal, employing a meticulous approach that resonated with our overarching aesthetic vision.

Our commitment to visual cohesion was evident in the scrupulous selection of environment sprites. Each sprite was chosen with a distinct purpose – to enhance the immersive and aesthetic dimensions of the game. The diverse array of sprites, including intricately designed statues and flickering fireplaces, was curated to imbue various aspects of the game world with depth and character.

Intricately designed statues served as key elements within our visual narrative. Their presence not only introduced a touch of grandeur but also added an air of significance to the virtual environment. These carefully positioned elements contributed to the overall ambiance, creating an immersive experience that transcended mere visuals.

Our attention to detail extended beyond stationary elements. Flickering fireplaces, meticulously animated, introduced warmth and vitality to the virtual surroundings. This dynamic element imbued the game world with an organic sense of life, showcasing our dedication to crafting environments that resonate with players on a sensory level.

One of our endeavours involved the inclusion of flags that gently billowed in the virtual breeze. This seemingly subtle addition brought an element of movement and dynamism to the otherwise static landscape. These waving flags, although seemingly small, contributed significantly to the immersive qualities of the game world.

Moreover, even the tiniest of details received our meticulous attention. Stones, thoughtfully positioned, contributed to the realism of the game world, adding a layer of authenticity to the environments player’s traverse. This attention to minutiae exemplified our commitment to creating a cohesive and richly textured virtual reality.

The integration of environment sprites was characterized by our collective design ethos. Each selection and placement were guided by a logical and well-reasoned approach, ensuring that every element harmonized with the overarching aesthetic. Our efforts weren't merely about visual embellishments but about elevating the entire gameplay experience by infusing the virtual world with life, character, and depth.

This phase of our journey underscored our dedication to creating a game that captivates players visually and immersively. Our deliberate design choices, informed by an understanding of how visual elements influence player engagement, epitomized our commitment to crafting an experience that extends beyond mechanics, resonating on a sensory and emotional level.

**A video game of a cartoon character

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6th Week (Done on 6/8/2023)**

Today, our momentum surged forward as we transitioned to Room Level 2 following the successful establishment of Room Level 1. This new phase marked an exciting shift as we embarked on crafting a captivating winter-themed environment that was distinctly different from its predecessor. Our commitment to visual diversity and immersive design remained steadfast as we aimed to transport players into an enchanting winter wonderland.

The inception of Room Level 2 introduced us to fresh challenges and heightened difficulty, inspiring us to push the boundaries of our creativity. As advocates of authenticity, we opted to create all designs from scratch, meticulously handcrafting the layout of the ground and tiles. While this decision demanded rigorous effort, it proved to be a gratifying endeavour that allowed us to infuse our unique vision into every aspect of the game.

Designing Room Level 2 emerged as a dynamic interplay between creative exploration and strategic thinking. The canvas of this new level encouraged us to delve deep into our creativity, shaping a landscape that was not only visually stunning but also intuitively engaging. With the lessons learned from Level 1 serving as a foundation, we approached Level 2 with a refined perspective, honing our ability to construct layouts that optimized the player's interactive experience.

Despite the knowledge gleaned from our previous efforts, Level 2 unveiled its own set of considerations. We were tasked with imagining fresh, exciting layouts that would challenge players' skills and offer a distinctive sense of progression. A significant departure in Level 2 was the deliberate elongation of the room's horizontal dimensions. This calculated adjustment injected a new layer of complexity into the gameplay, compelling players to adapt and strategize in unique ways.

To amplify the intricacy and strategic depth of Level 2, we ingeniously introduced steep hills as a novel gameplay element. These undulating terrain features were absent in Level 1, lending a renewed dimension to the gameplay. We meticulously positioned and designed these hills to infuse the game with a sense of dynamism, testing players' agility and problem-solving skills as they navigated the diverse topography.

Designing Room Level 2 was indeed a labour of love that encapsulated our dedication to the player experience. The journey encompassed a synthesis of creativity, meticulous planning, and a profound understanding of player engagement. We aspired to craft a level that not only showcased our imaginative prowess but also transported players into an immersive, challenging, and ultimately rewarding winter adventure. Every design choice was made with the intention of enhancing player immersion and enjoyment, reinforcing our commitment to delivering a remarkable gaming experience.

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**7th Week (Done on 7/8/2023)**

Coming to the seventh week, we introduced a captivating evolution to the visual aspects of our game – a transformation that added depth, dynamism, and immersion to the game world. This transformative update centred around the integration of a pixel parallax background effect, a strategic decision that exemplified our commitment to enhancing player engagement through innovative design.

The catalyst for this evolution emerged from our exploration of the itch.io online asset store, where we unearthed a pixel parallax background effect that intrigued us. This discovery opened the door to an exciting opportunity to reimagine the backgrounds of both Level 1 and Level 2. Departing from conventional static images or GIFs, we embarked on a journey to inject life into the virtual environment through the art of parallax design.

The execution of this effect involved a multi-faceted approach. We imported an assortment of 5-6 background layers as sprites into the Game Maker. This array of layers allowed us to simulate depth and movement within the game environment. The linchpin of this transformation was the creation of a parallax object, a keystone that would orchestrate the dynamic visual dance of the backgrounds.

Through a carefully crafted code segment in the step event of the parallax object, we harnessed the power to control the camera view. This intervention facilitated a nuanced interplay between the character's movement and the background's motion. As a result, the background exhibited a parallax effect, moving at a distinct pace from the character. This divergence of movement endowed the game world with an organic dynamism that was both captivating and visually engrossing.

The parallax background effect unlocked a multitude of benefits, transcending mere aesthetics. It endowed the game with an enhanced sense of depth, amplifying player immersion by simulating a multidimensional environment. Players now ventured through levels that felt rich, expansive, and teeming with life. As the character traversed the virtual realm horizontally, the background responded with harmonious movement, coalescing into a visually enchanting experience.

However, our journey wasn't devoid of challenges. An obstacle surfaced when the background failed to synchronize as anticipated. After diligent investigation, we pinpointed the root cause – a misstep in invoking the layer\_get\_id function in the parallax object's step event. This setback, though a momentary hindrance, ultimately fortified our grasp of the intricacies underpinning the parallax effect implementation.

Our pursuit of this visual enhancement echoed our dedication to player experience. By injecting innovation into the visual tapestry of the game, we set out to elevate not only aesthetics but also engagement and immersion. The integration of the pixel parallax background effect symbolized our unwavering commitment to crafting a gaming experience that transcends boundaries, captures imaginations, and invites players to journey through enchanting, dynamic landscapes.

A screen shot of a computer screen

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A screenshot of a video game

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**7th Week (Done on 9/8/2023)**

Today, we are elated to share a significant achievement – the successful implementation of a teleportation system that seamlessly bridges the gap between Level 1 and Level 2. This breakthrough marks a pivotal moment in our game's evolution, promising players a truly interconnected and immersive gameplay experience.

The genesis of this teleportation system commenced with the importation of a teleport door sprite, which we promptly transformed into a functional object. This teleportation gateway assumed a central role in facilitating the seamless transition between the two levels. With careful consideration for player experience, we thoughtfully positioned this object in both Room Level 1 and Room Level 2, strategically placing it within reach.

The mechanics governing this teleportation system revolved around a collision event involving the player's character and the teleport object, aptly encapsulated within the obj\_teleport. When the player's character makes contact with this pivotal object, a symphony of events unfolds. Within the confines of this collision event, the mechanics dictate the action of room\_goto(Level2), the catalyst that propels the character across the threshold and into Room Level 2.

This teleportation mechanic is more than a mere transitional tool – it's an immersive narrative device that beckons players to traverse the expanse of our game world with fluidity. The seamless teleportation not only serves as a testament to our meticulous design but also imbues the gameplay with a sense of momentum and continuity. As players venture forth from Level 1, they are granted passage to an entirely new vista, enhancing the journey's scope and imbuing the experience with an exhilarating sense of progression.

We are profoundly excited by the potential of this teleportation system. It's more than a mere mechanic; it's an embodiment of our commitment to crafting an engaging and dynamic player experience. By enabling players to traverse seamlessly between levels, we are nurturing a sense of cohesion, curiosity, and exploration that is at the heart of a truly captivating gaming adventure.

**7th Week (Done on 10/8/2023)**

Today, we are delighted to share a wave of captivating enhancements that have infused our game with an enriched audio dimension. This progression in our audio design represents a pivotal step forward, underscoring our dedication to crafting an immersive and multi-sensory gaming experience.

Our latest strides in audio design encompass several noteworthy achievements. First and foremost, we've ventured into the realm of character damage sound effects. By introducing these auditory cues, we've elevated the impact of each encounter, transforming mere visual interactions into visceral experiences. As players engage in battles or navigate challenges, the accompanying sound effects heighten the realism, making every hit and collision resonate more intensely.

In addition to the character damage sound effects, we've meticulously integrated a subtle yet impactful jumping sound. This auditory embellishment serves to amplify the thrill of leaping into action. Careful consideration was given to maintaining a harmonious balance between the audio elements, ensuring that the jumping sound complements the overall soundscape without overpowering it. By fine-tuning the volume, we've achieved a delicate equilibrium that imbues the game with an extra layer of dynamism, all while preserving the cohesiveness of the auditory experience.

The infusion of these new audio elements represents a deliberate effort to heighten player engagement and enjoyment. As players navigate the virtual landscape, the auditory cues forge a stronger connection between their actions and the in-game world, culminating in a more immersive and captivating gameplay journey.

These audio enhancements encapsulate our commitment to crafting a holistic and memorable gaming adventure. By leveraging sound effects to convey impacts and dynamics, we've enriched the gaming experience with a layer of sensory immersion that resonates deeply with players. As we stride forward, we eagerly anticipate the responses and reactions of players, knowing that these auditory dimensions will amplify the excitement, engagement, and enjoyment that our game has to offer.  
  
**7th Week (Done on 11/8/2023)**

We are thrilled to share that we've injected a wave of excitement into our game through the introduction of new and captivating enemy sprites. These adversaries not only exhibit a distinctive visual flair but also play a pivotal role in elevating the player's overall experience, ushering in a new level of challenge and engagement.

In crafting these new enemy sprites, we've taken a deliberate step to differentiate them from their counterparts in Level 1. This visual contrast serves as an overt signal to players that the game's challenges are escalating, ushering them into a more demanding phase of their journey. The unique appearances of these enemies not only contribute to the game's aesthetics but also heighten the sense of progression and variety that players crave.

Beyond their appearance, we've enriched the gameplay dynamics by imbuing these new enemies with adjusted abilities and tactics. One standout example is the introduction of enemies capable of unleashing fireballs over a longer distance. This tactical refinement adds layers of complexity to the encounters, compelling players to adapt their strategies and timing. This infusion of new abilities fosters an environment where players must stay vigilant and quick-witted, creating an interactive experience that is as intellectually stimulating as it is visually captivating.

A strategic shift in enemy placement has further intensified the gameplay's dynamism. By thoughtfully situating these adversaries in various locations throughout the level, we've curated an environment that brims with unpredictability. This dynamic interplay between player and enemy keeps the gameplay fresh and exhilarating, preventing predictability and ensuring that every encounter is a novel and engaging challenge.

Our endeavours in introducing these new enemy sprites are a testament to our dedication to delivering an evolving and captivating gaming experience. By juxtaposing their appearances, adjusting their abilities, and expanding their presence, we've honed an environment that rewards adaptability, strategy, and reflexes. These changes align with our overarching goal of providing players with a rich and immersive experience that continues to surprise and captivate as they journey through our game.

A video game screen with a green monster

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**7th Week (Done on 12/8/2023)**

Today, we will unveil an intriguing and rewarding mechanic that we've seamlessly woven into the fabric of our game. With the finishing touches being applied to our complete game, we've introduced a captivating element centred around the acquisition of coins and gems. These coveted collectibles serve a dual purpose, enriching the player's journey with both tangible rewards and an enhanced gameplay experience.

The inclusion of coins and gems stands as a testament to our commitment to crafting a holistic and gratifying gaming adventure. Beyond being mere adornments, these collectibles serve as a valuable resource that players can accumulate. When players gather a total of 15 coins or gems, they unlock a substantial boon – an additional point of health (1HP) for their character. This ingenious mechanic not only rewards players for their diligence and exploration but also introduces a strategic dimension to the game's progression.

Players now face the engaging decision of whether to prioritize collecting coins in Level 1 or gems in Level 2 to bolster their character's survivability. This choice adds an element of strategy and resource management, as players must gauge their character's needs against the potential risks and benefits of each level. By intertwining this mechanic with the gameplay, we've created an immersive experience that prompts players to think critically and make informed decisions.

To accentuate the allure of these collectibles, we've implemented resonant sound effects for both coins and gems. The auditory cues accompany the act of collection, enhancing the tactile satisfaction and immersion. This sonic feedback underscores the significance of these acquisitions, making the process of gathering coins and gems all the more rewarding.

Strategic design has also influenced the placement of these collectibles. We've meticulously positioned coins and gems in areas where enemy encounters are more intense, ensuring that players must navigate perilous situations to secure their rewards. This dynamic arrangement engenders a captivating interplay between risk and reward, compelling players to skilfully navigate challenges while seizing opportunities to augment their character's capabilities.

This meticulous integration of the coins and gems mechanic encapsulates our aspiration to deliver a gameplay experience that is layered, immersive, and deeply satisfying. By intertwining strategy, reward, and engagement, we've designed an element that resonates with players on multiple levels, adding an enriching layer to our game's intricate tapestry. As our journey culminates, we eagerly await players' responses to this mechanic, confident that it will amplify their enjoyment and captivate their attention throughout their gaming experience.  
  
**7th Week (Done on 13/8/2023)**

As we approach the culmination of our game development odyssey, our attention turned towards crafting a poignant resolution that adds the final brushstrokes to our meticulously designed levels. With great care and intention, we have forged a game over system that infuses our gameplay with a sense of closure and gratification.

Upon triumphantly traversing the challenges of our levels, players are greeted with a decisive "Game Over" message, artfully punctuating their journey. This message stands as a testament to their dedication and perseverance, marking a pivotal moment that encapsulates their accomplishment. As this message graces the screen, it is accompanied by a jubilant cheer that reverberates through the virtual space. This cheer, a celebratory chorus of recognition, serves as a resounding applause for the player's victory.

Our game over system is more than just a conclusion; it is a triumphant crescendo that encapsulates the player's achievements. As they bask in the glow of their accomplishments, the system imparts a sense of satisfaction that validates their efforts. This touch of finality is an essential part of the player experience, leaving an indelible mark on their memory.

By embedding this feature into the fabric of our game, we strive to etch a lasting impression on the players. The "Game Over" screen, followed by the joyous cheer, forms a harmonious cadence that elevates the gameplay experience. This carefully orchestrated conclusion serves as a reward for their dedication, an affirmation of their skills, and a call to revisit the game with newfound vigour.

In these concluding stages of development, we are steadfast in our commitment to delivering a memorable and gratifying experience. The game over system is a testament to our dedication, encapsulating the essence of our game's journey and leaving players with a sense of fulfilment that lingers beyond the screen. With anticipation, we look forward to witnessing players embrace this moment and relish in the culmination of their adventure.A screenshot of a video game

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**8th Week (Done on 14/8/2023)**