

JJ McReb's
EXCELLENT
—MYSTERY—

PC
CD-ROM
SOFTWARE

AN ORIGINAL POINT-AND-CLICK ADVENTURE

MAKING A GAME IN 60 DAYS

A blue-skinned Pajama Superhero trying to fix the weather. A talking car and his dog traveling to the moon. Guybrush Threepwood. Point and Click adventure games of the '80s and '90s were wild – and also some of our first childhood interactions with computers.

As a love letter to the genre that raised us, our team of seven set out to create our own playable point-and-click adventure in 60 days and publish it to the Apple App Store.

This case study details the planning, development, testing, and execution that it took to reach our goal.



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OUR TEAM



Front: Cameron Carlsen, Macall Carlsen, Emma Jones, Juleen Mathias
Back: Brian Mondaca, Rylee Goodman, and Joseph Eborall

PLAN

ART STYLE

Developing our art style for multiple designers

The '80s was a time to get down and groovy and incorporate bright colors in what you wore. With that in mind, we wanted our point and click game to match that same vibe.

Using a style guide with bright colors, a simple set design for each room, and the usage of textures and gradients to showcase the depth helped bring the game to life. By adding fun elements and features from that era, we created a nostalgic feeling that the player can experience when playing our murder mystery game.

For the art style of the game, we decided to go with a "lo res" style – the style just after "8-bit" when computer graphics cards were getting better, but still weren't fantastic. We did this because we wanted to resemble early

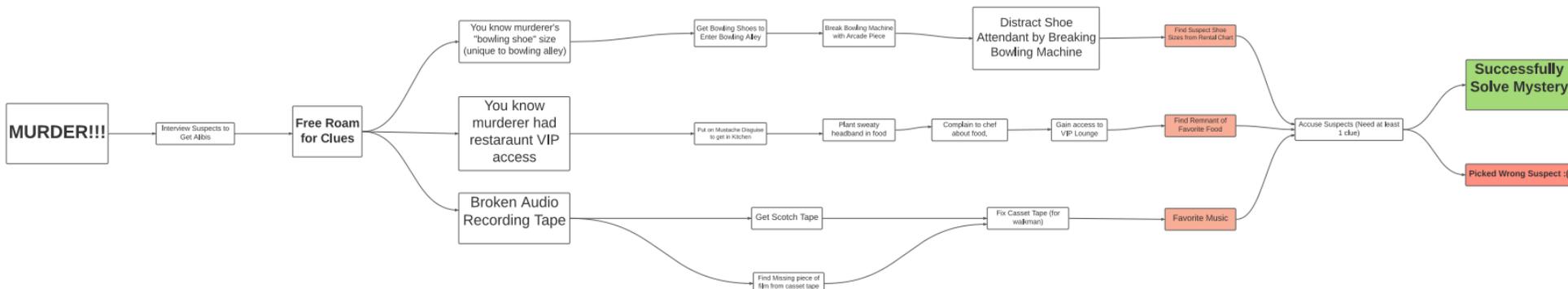
games that were made during the '80s and early '90s.

This style allowed us to test our creative skills and illustrations to create complex gameplay with a limited amount of pixels. Most of our scenes are limited to only 64 colors, using tints, tones, and shades from our color palette. The right shows our early internal style reference document.



PUZZLE PLANNING

The key to making our game puzzles enjoyable



Pointless puzzles killed Point-and-Click Adventure games. For every well-designed genre exemplar, there were countless others with dead-end puzzles, illogical item combinations requiring the player to make giant leaps of logic, and no clear game objective for the player to achieve.

Our Puzzle Dependency Chart was

the key to overcoming the mistakes common to the genre.

Read from left to right, this chart shows every puzzle the player needs to solve to beat the game. Starting with the obvious end goal of “solving the murder,” we worked backward, determining that the player would need three clues to identify the murderer

successfully and the puzzles they would need to solve to get those clues.

It cannot be understated how useful this chart was: it helped us make sure that our puzzles made sense, that our game didn’t have any severe bottlenecks that might stop someone from finishing the game, and most importantly, that the player had

multiple objectives and could beat the game at their own pace. Shown above is the chart as we made it.

ORGANIZING WORK

How we handled the workload with limited time

With such a large amount of assets to produce amongst the seven of us, we adopted the Agile Kanban methodology to manage the project and distribute tasks.

Using Slack to communicate and Trello for kanban management, we created a “to do” list, a “needs art approval” list, a “finished” list, and a “working on” list for each member of our team.

Each project task was represented as a “card” which could be moved between lists, and contained all of the information regarding the task. Team members would self-assign tasks from “to do” to their “working on” list and then move it to “needs art approval,” where the art director could then move

it to “finished.”

This approach allowed us to see what tasks we needed to complete, self-assign jobs by expertise, see who was working on what and for how long, the days until important project due dates, and see if tasks were stagnating within our pipeline.



ITEM DESIGNS

Designing a vital aspect of point-and-click gameplay

Items are the heart of point-and-click gameplay. These items are objects in the world that players interact with and collect. For example, to enter some rooms, the player must find specific items. The player could access the collected items in their inventory throughout the game.

While designing these icons, we had to consider the design aspect to fit in

the environment and the inventory. To do this, we sketched out simplistic ideas for each icon. 12 icons were conceptualized and sketched, but only 10 of them made it to the final draft of the game. While digitizing the designs, we ensured that each design was not overly complicated since it would be a small item on the screen.

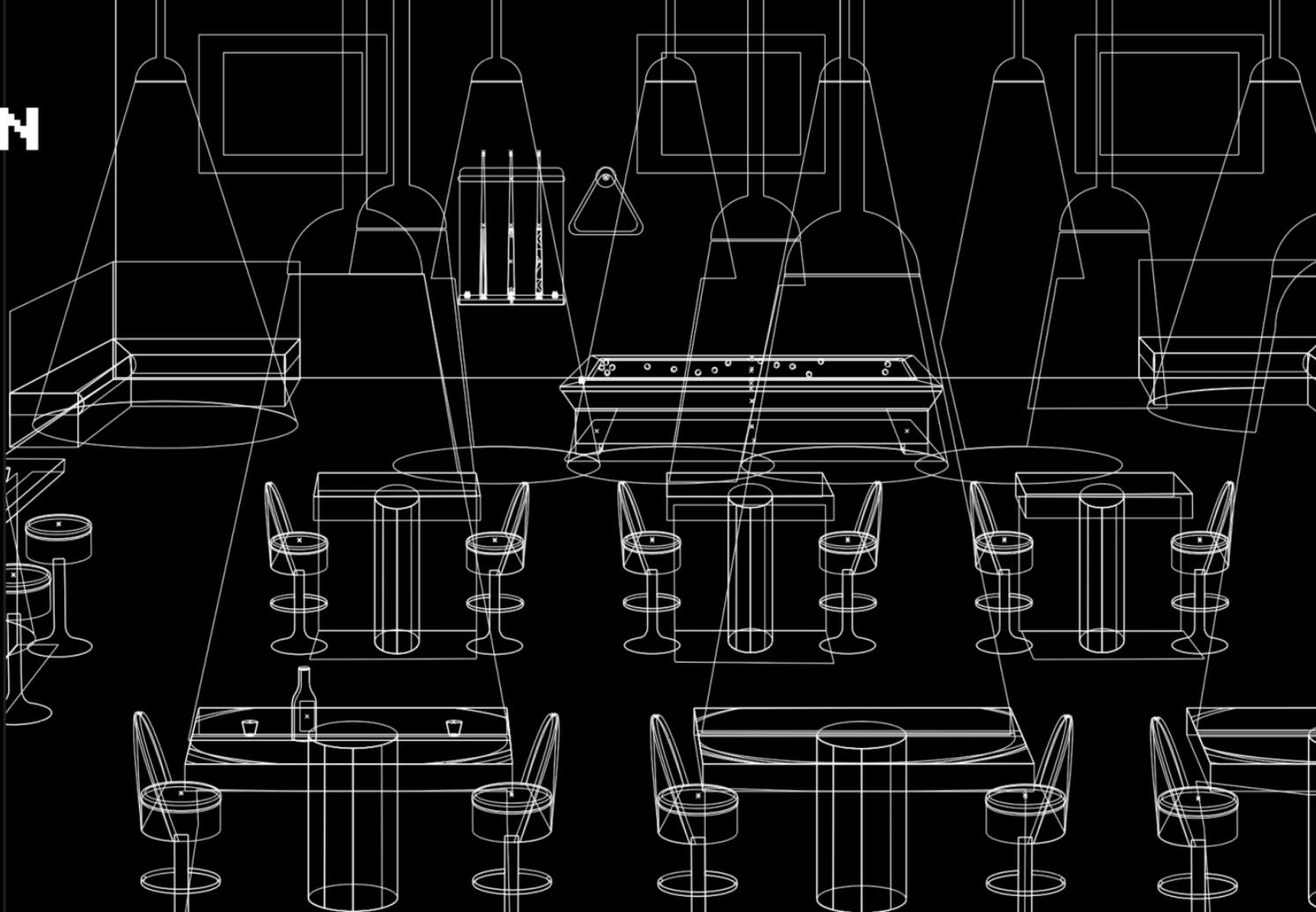


ROOM DESIGN

Designing colorful locations

Not only did we want to tell a compelling story within solving the mystery, but we wanted the rooms to stand out during the adventure of the game. By helping the user immerse in the gameplay, we created rooms that each have their unique taste of a throwback, retro feel. Each room has a purpose and helps solve the puzzle.

By using a basic template for each room, we were able to accomplish different set designs with a similar ratio. By doing this, we were able to make each room feel cohesive but yet have its own theme. Each room has depth-separated elements to create a 3D parallax effect as the camera follows the player



DISCO

We wanted to create a fun atmosphere for this room because disco night is all about dancing and having fun. By adding elements to portray the feeling of wanting to get groovy, we included the disco ball, bright colors, a flashing light floor, and lights.

It was important for us to have an emptier space in the middle for “dancing” and foreground of couches to relax as most disco rooms incorporate the same layout. To help add more texture and movement to this room, we included a fun pattern on the wall and a scrunched-up curtain for the very back.



VIP BAR

The VIP bar was a way to show the player that they need a clue to be able to get into the section of the hotel. We wanted to make the bar have a feeling of a musty-grungy look. By doing this, we first made sure that the walls and floors were a darker color to create a dark look.

Once we established the darker tones throughout the room, we included big lights to help brighten up specific areas. Having the light rays helped bring out sections of the dark bar.

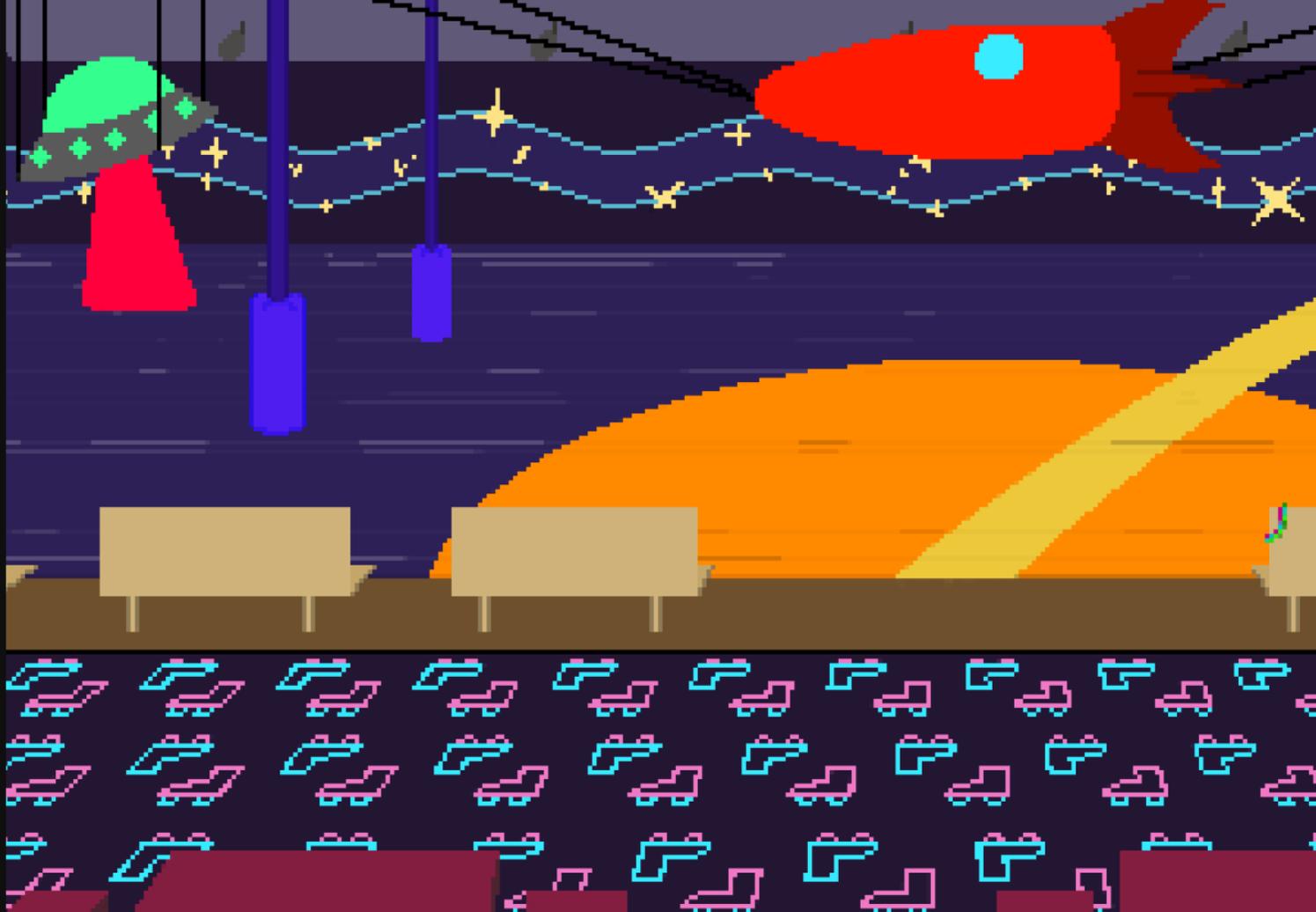


ROLLER RINK

The main scene is set in the foreground of the rink, where you have access to the door and rollerskates.

The roller skating floor has horizontal textures to help with the direction of the skater character and for the feel of skid marks on the wood floor. For the main floor when you walk in, we included a fun pattern of skates as the carpet with bright colors to enhance the theme of rollerskating.

Lastly, to solve the problem of everything being too straight and sharp, we incorporated a curved pattern in the back wall to help with the movement of the room.

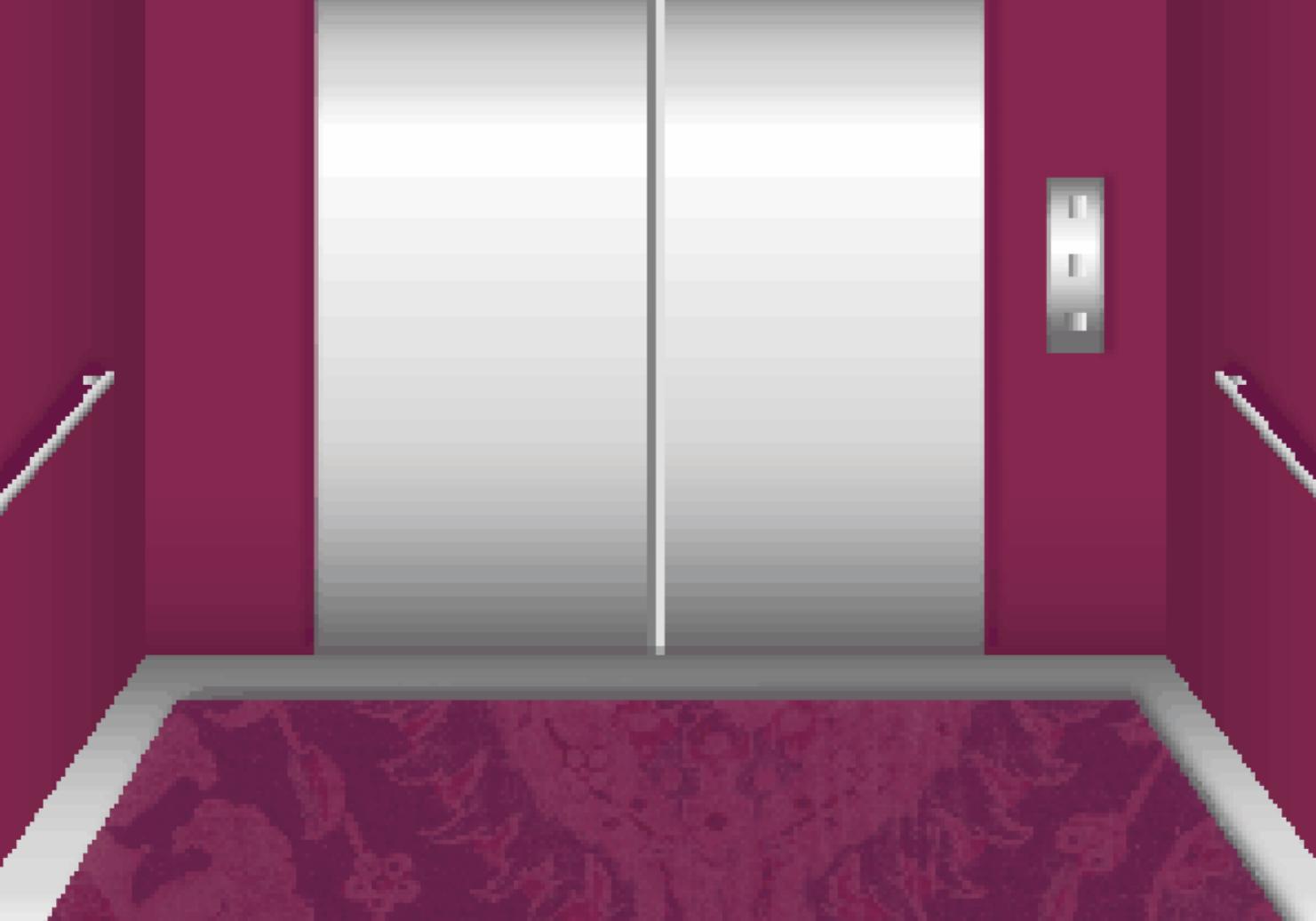


ELEVATOR

For this room, we wanted it to be more simple because it is only the main character interacting with text on the screen. With this smaller room, we decided to use the same red color as the lobby, but in a different tone so there was some difference.

We also made sure to have gradients within the door, bar, and buttons to show that the material was metal.

One touch that we think helped bring this room together was the low opacity pattern for the rug, to help make the room not look too bland and flat.



BOWLING LOBBY

A bowling alley is normally a space for enjoyment by knocking down the most pins, but in this game, you need to get an item and solve important clues to solve the murder. In most bowling alleys, there are bright patterns on the floor.

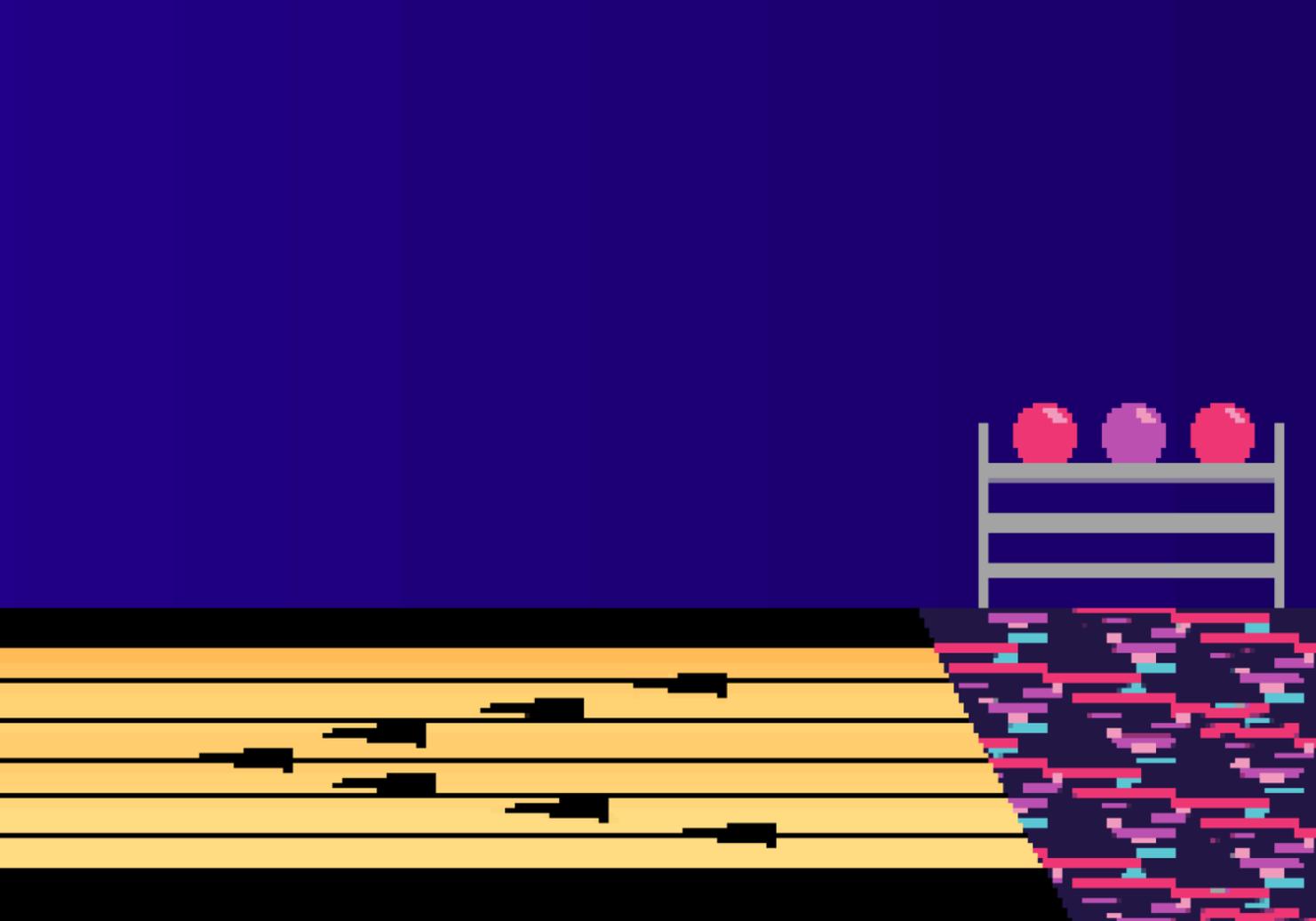
You see this not only in the 80's era but also in today's world. We wanted to incorporate the bright flooring and LED lights in this room for a fun environment.



BOWLING LANES

Bowling alleys have many lanes, and we wanted to achieve that feeling with a stretched-out, longer room when walking horizontally. To do this, we made sure we had a background of bowling assets and a foreground of high tables across the screen.

There is a lot of room to walk compared to the other rooms designed, but this is to compliment the long lanes and length of what a typical bowling alley entails.



DINING ROOM

We wanted to have one section of the hotel where you go through multiple doors all in one general area. With this, we decided to incorporate multiple rooms for the restaurant.

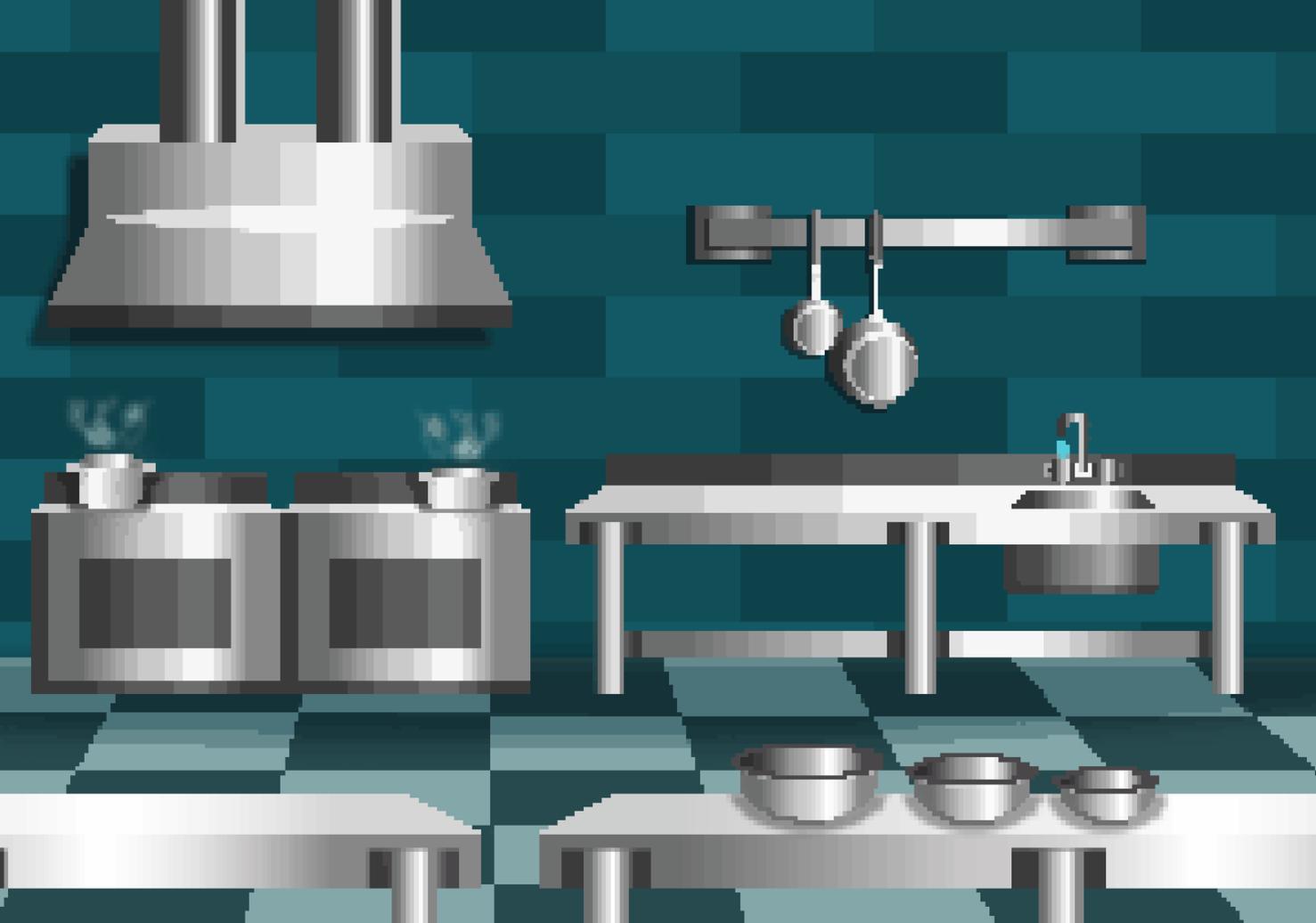
We wanted similar rooms for the theme of a restaurant that includes: the main dining area, a kitchen area, freezer, and a section of a VIP bar.

The design of the main dining area was to set the scene of the other rooms and for the player to walk through the restaurant easily to find clues that are located in the different sections.



KITCHEN

In order to get to one of the main clues, you need to get to the freezer. And what compliments a freezer? A kitchen. With the kitchen design, we had a lot of similar stainless steel products to go in the room. We made sure there was a gradient to show that it was metal, and used a dark color on the floor and walls to counteract the lighter kitchen elements. To help really make this room pop, we included patterns for the wall as a brick style and the floor as a checkboard pattern. With this, it helped bring the room together and easily separate the stainless steel products.



FREEZER

The walk-in freezer was a fun room to create because we were able to add moving elements to showcase the cold atmosphere.

With the frozen items on display and icicles, it helped portray the cold feeling. Another cherry on top to really help this room pull together is to include a blue mask over the whole room.

Having a blue tint helped achieve the room to look more like a freezer.



BASEMENT

We wanted to have one room that was dark and scary because this is a murder mystery game after all! What better way to showcase something super scary than to not only have it in the basement, but to also have the room dark covered with what looks like blood, but is actually some cheeky red paint.

This room had a simpler design by having one main light source to lighten up the room and elements to portray an abandoned area. We included boxes and a trash bin to show the dirty, grungey look and incorporated bright red tones for the blood. The chef's kiss to pull this look together is the bloody word "help" on the wall, to motivate you to solve the mystery and find out who did it!



HOTEL LOBBY

This room is where the game first makes an appearance to start off the mystery. With the lobby being the first scene with multiple characters, we wanted to keep it on the simplistic side with our design. By having an open room that is not too busy with the design, we were able to fit all the characters for interrogation with ease.

We included darker tones to evoke the mystery of the murder taking place. Using the red tones throughout the lobby, we hoped to accomplish the feeling of ambition and action. The caution tape was a great way to set the scene of fear and to showcase that something bad has happened.



THEATER

To create a simpler design with this room, we had most of the illustrations have similar shapes to help them be cohesive throughout the spread. The one element that we wanted to be different than the rest is the title of the room, which is “theater”.

We did this because we wanted to highlight what this room was right away by breaking the rectangular rule we had set in place. To complement the title, we incorporated items of rounded edges in the poster board frames.



ARCADE

We wanted to highlight the same feel of the patterned flooring like the bowling alley, and incorporate it in this room as well. Our goal with this room is to have it simple and smaller compared to our other rooms. We did this because of the busy arcade machines and colored floors and walls. We chose to do fewer machines because in one of them you need to find a clue, and we wanted to give the player a better chance at finding it.

We had one machine that was bigger and more of an odd one out to help it stand out from the rest. An easter egg that we wanted to put in the room is the machine that you find the clue that says “kill space”, implying that the killer is in this room.



INTERACTIONS

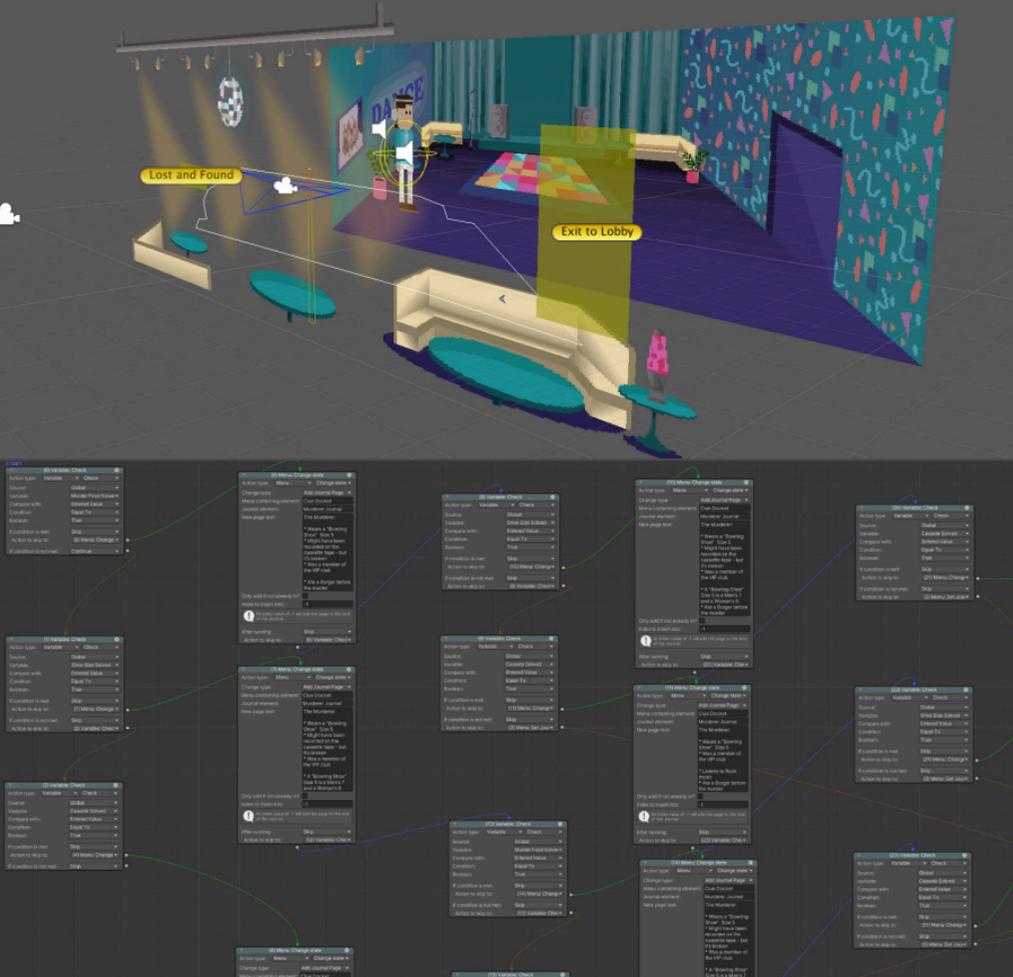
Programming object interactions to create gameplay

Interactions are the heart of point-and-click gameplay. To make our scenes playable, clickable “Hotspots” were created over in-scene objects to tell the player what they could click on, and an “Action List” was attached, triggering a specific set of actions for the hotspot.

ActionLists are extremely flexible logic trees, allowing us to manipulate in-game systems in an ordered set of steps. Using conditional branching and global variables, we triggered different actions in our ActionList depending on if a player had completed an objective or had a specific item in their inventory. These conditional statements allowed us to teach the player what inventory item they would need to interact with a scene’s hotspot and then trigger events – even across stages – when

interacting with the correct object. Our Puzzle Dependency chart was integral in helping us construct the various ActionList components within the game and understand their dependencies.

With 26 nodes, the most complex ActionList in the game is a series of conditional checks to determine what page to give the player in their clue docket when they solve a clue.



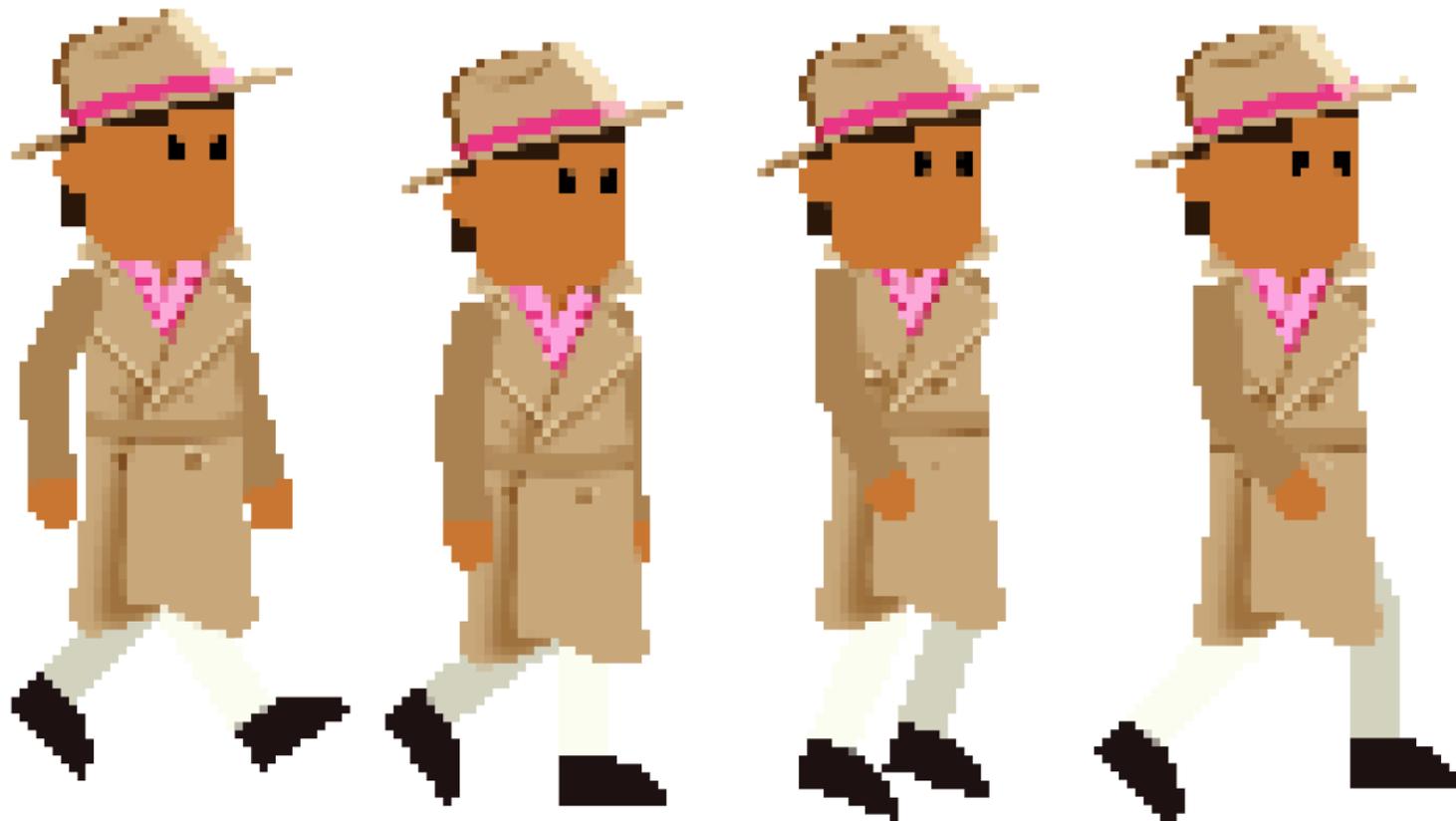
ANIMATIONS

Breathing life into our world

Our main character, JJ, had to move around the scenes we created, and more specifically, he needed to walk. A character rig was made of each body part for him so a walk cycle could be created. Each limb was hand-animated frame by frame so that he could travel from place to place to solve the mystery.

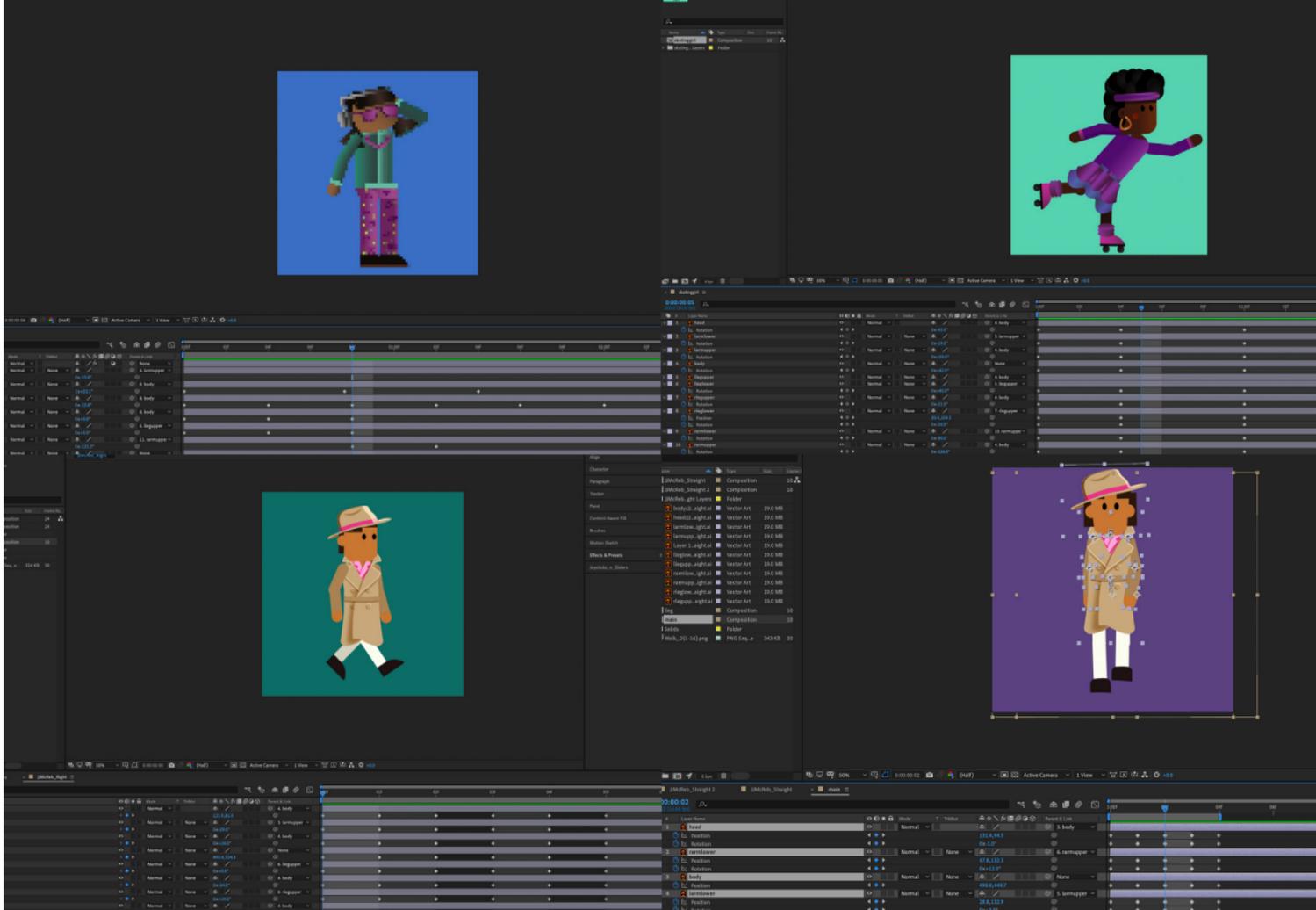
Assets created in Illustrator were made with animation in mind. These Assets were then manipulated in After Effects. Each character action required 4 different animations – one for each direction – and so over 24 animations were created for JJ alone.

There were troubles at the beginning of the process of making JJ walk. Since we kept the frame rate low to match the retro style of our game, some of his quick movements looked off. These



problems were fixed as we refined the walk cycle and studied different perspectives of real humans walking.

We studied different retro video games to see how the sprites moved and how characters walked and tried to honor them in our game animations. The frames of the walk cycles were exported as PNG sequences, imported into Unity, and attached to each character's animation controller.



BUG TESTING + QA

Improving the game with user feedback



EXECUTE

Using weekly Apple TestFlight and Mac/Windows development builds, we distributed our game to team members, family members, and trusted mentors to test at different developmental milestones.

Character designs with memorable shapes, faster character movement and camera tracking, more straightforward puzzles, a clearer user interface, consistent pixelation, and the squashing of countless device-specific bugs are immediate improvements that wouldn't have been made possible without our tester's feedback.

Thank you to everyone who took the time to test our game <3

JJ McReb's Excellent Mystery ▾

Builds

iOS

Feedback

Crashes

Screenshots

Internal Group

App Store Connect Users

External Groups +

External Testing

General Information

All Testers (13)

Test Information

About TestFlight Data ?

iOS Builds

The following builds are available to test. [Learn more at](#)

> Version 0.51

> Version 0.45

> Version 0.25

> Version 0.12

> Version 0.5

> Version 0.4

> Version 0.3

> Version 0.2

> Version 0.1

PROJECT SUMMARY

Our team of seven created a playable point-and-click adventure and submitted it to the Apple App Store in under 60 days.

This game was completed concurrently with several other projects, requiring a true team effort to complete. This required us to plan carefully, prioritize game features, double the essential roles, and follow the Agile Kanban methodology to make the most of our team member's limited time while keeping our technical debt and project creep to a minimum.

We're proud of what we accomplished and proudly reflect that the game was not the result of any heavy-lifting individual but a united team.

We hope it will be played by and inspire future generations, just as generations of previous point-and-click designers inspired us.

13 UNIQUE LOCATIONS

10 INVENTORY ITEM ICONS

7 MEMORABLE CHARACTERS

13 UI MENUS AND ICONS

27 ANIMATIONS

3 CUTSCENES

160 LINES OF DIALOGUE

2,743,719 PIXELS

NOW AVAILABLE ON IOS



APPENDIX



CAMERON CARLSEN

Design, Animation, Art Director

STYLEGUIDE

As a lover of anything retro, I was beyond excited to work on designing and animating assets for this game.

At the beginning of the project, I wanted all team members to have a basic style and common goal while creating assets for the game. For this reason, I made a simple style page to give designers a starting point for their creations for the game.

I created the style page, as well as a short animation for a video. These projects helped get the project rolling in the right direction as far as style within the game. With the use of glowing, vibrant colors, and sharp gradients and grids, these pages would serve as a great foundation, and inspiration for designs to come.



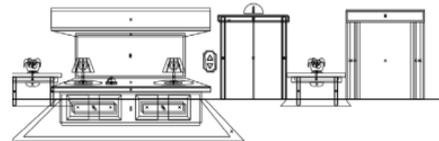
SCENE DESIGN

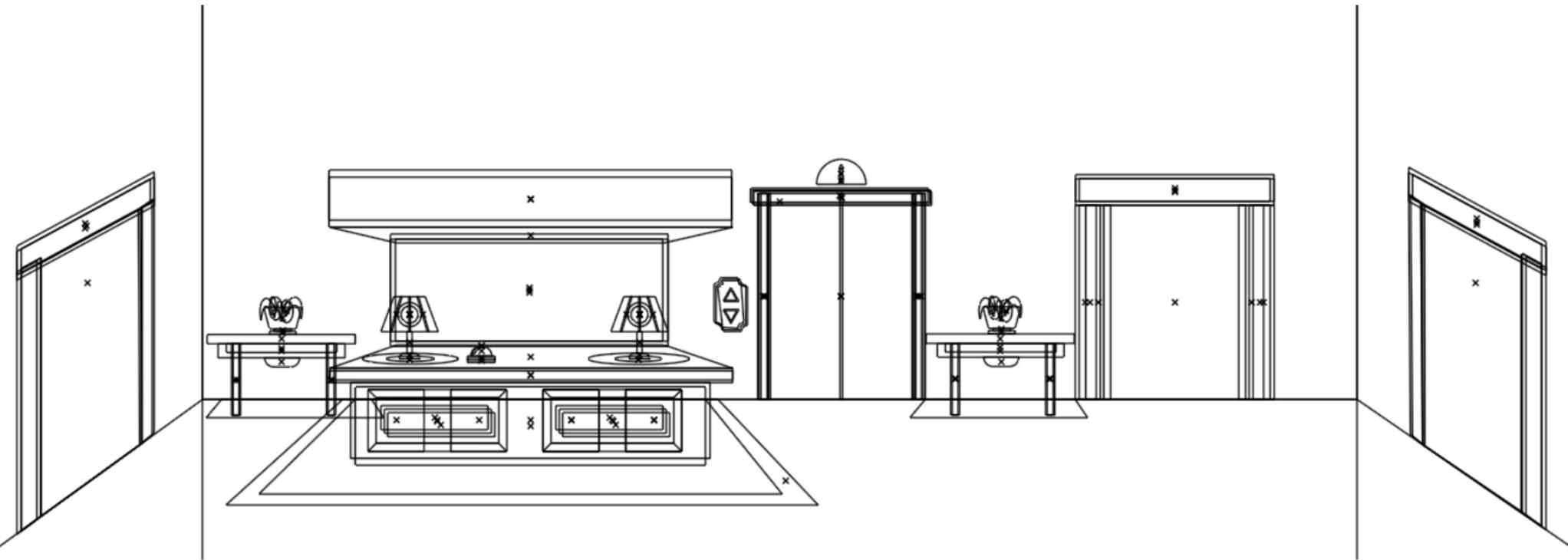
I had the opportunity to create two of the scenes in the game. The first one being the lobby, the starting point of our character's adventure. This main hub provided access to different areas in the game and needed to be big enough to hold all of our suspects for interrogation.

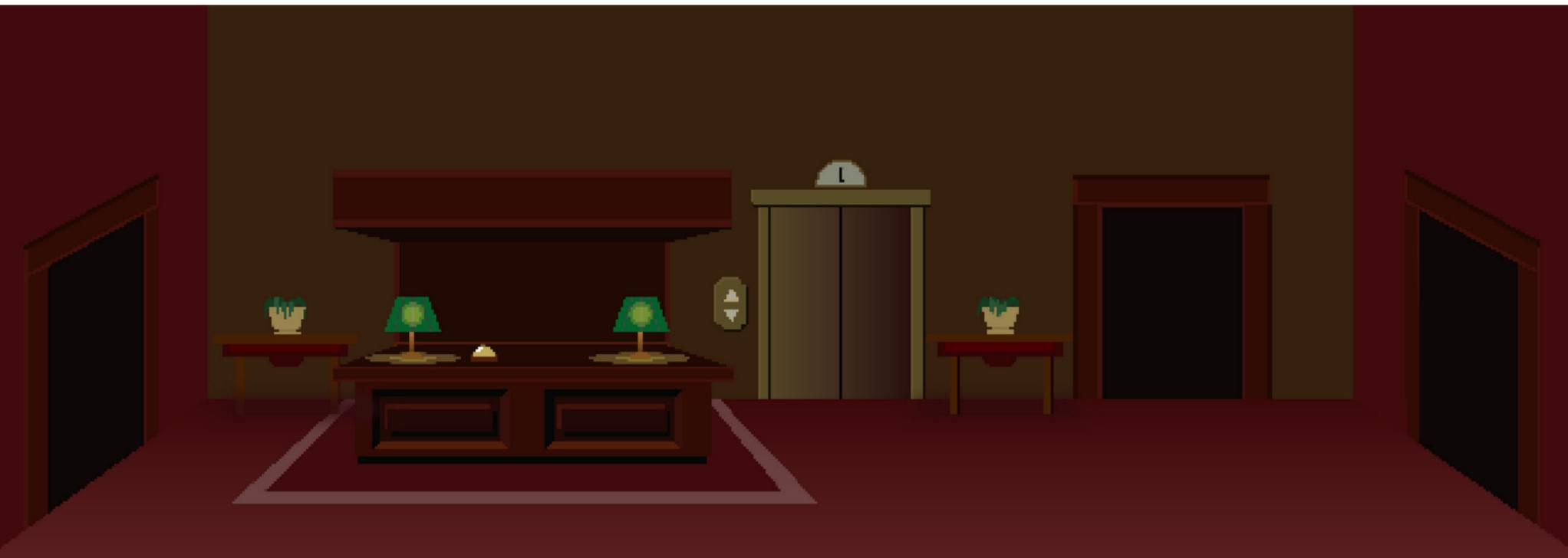
The problem I had with creating this scene came down to the colors used to make it feel like a hotel lobby. At first, more vibrant colors were attempted to try and fit the 80's vibe, but after feedback and some revisions, they

were changed to what you see in the game now.

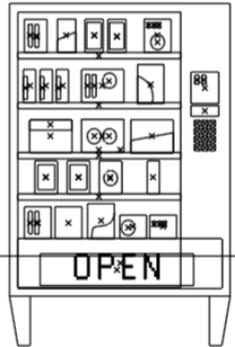
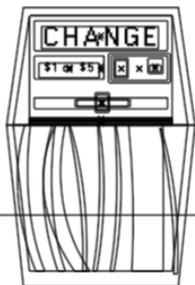
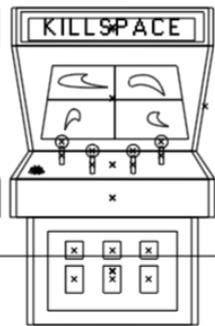
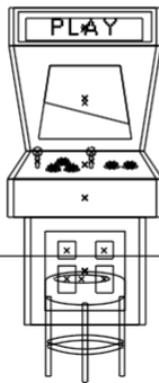
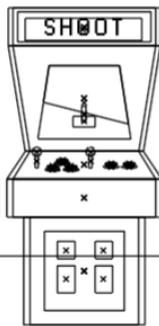
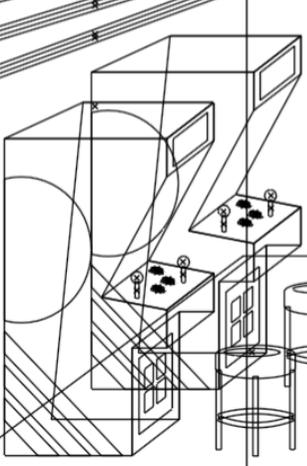
The arcade was the other scene I created. The troubles with this room were the overall shapes of the arcade cabinets. A lot of research was done to study the shapes of older cabinets, as well as what older arcades would look like. After revisions, the final result is a scene I am proud of.







ARCADÉ





CHARACTERS

With fewer pixels to work with, the challenge of creating characters that felt different seemed like a difficult task to overcome. I created one of the templates that would be used for all characters in the game.

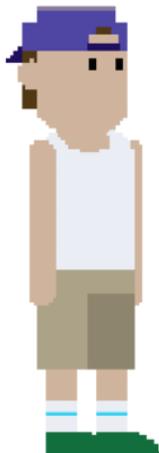
I started with one of our first drafts of JJ. All of his limbs were created with animation in my mind.



Barry Bartender was another character I designed. His sleek and formal look lets you know he can be trusted to keep your darkest secrets, as well as clean up any mess the bar has.



Archie Arcade is the king of the arcade. You can find him roaming the cabinets with change rattling in his pockets. He looks suspicious. This is the Murderer.



Bowling Borris is shaped like the pins he hears fall every day. He wears the same shirt every day.





Along with Borris, I also helped create one of the key items for the game, Bowling Shoes. The problem with this design was the perspective of the shoes. In the end, the perspective I ended up with works well with the 8-bit style.

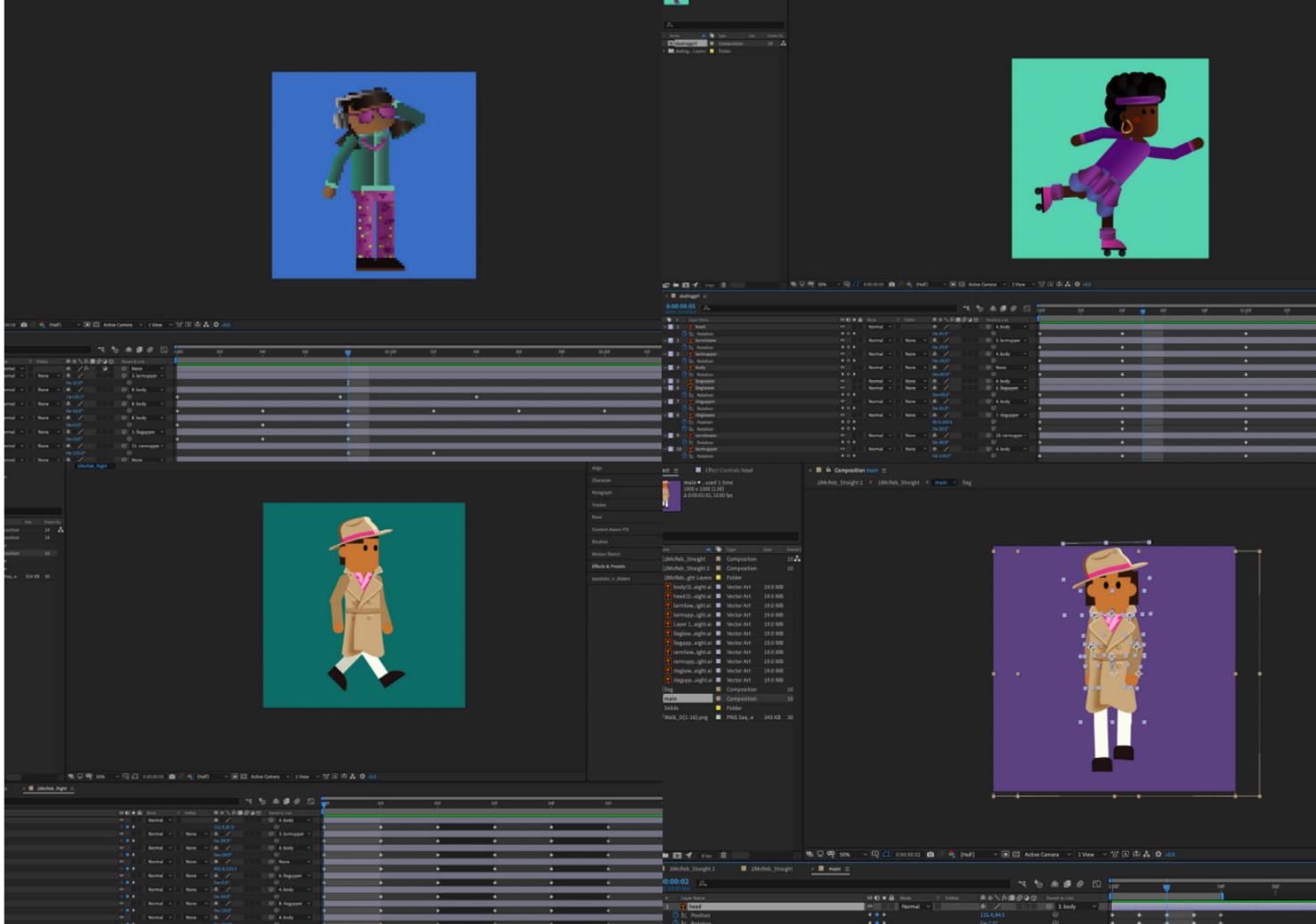


The Victim. This character is the reason for the adventure you are starting. Who killed him?

ANIMATIONS

One of the most important roles I was tasked with was making the Character move in the game. The game needed 4 different directions of walk cycles, and in the end, 24 animations were made, just for JJ.

The frame rate was kept low to keep the retro style of our game. I hand-animated each frame for these animations. In the beginning, I had trouble making walk cycles and movements that looked good. I studied old video games to see how they achieved walk cycles with such few frames and pixels. The key I learned was to focus on the body movement first and then the limbs. I used this technique to improve the look of the movement seen in the game now.



APP ICON

We needed an icon for our game. I referenced a lot of older video game and movie title screens to achieve the look for this icon. Sharp gradients, glows, and vivid colors help bring it to life.





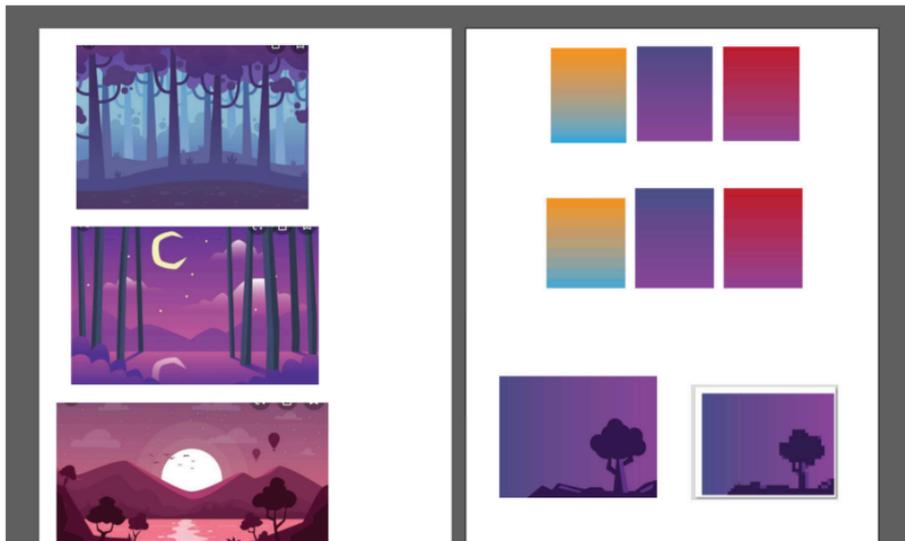
MACALL CARLSEN

Design & Leadership

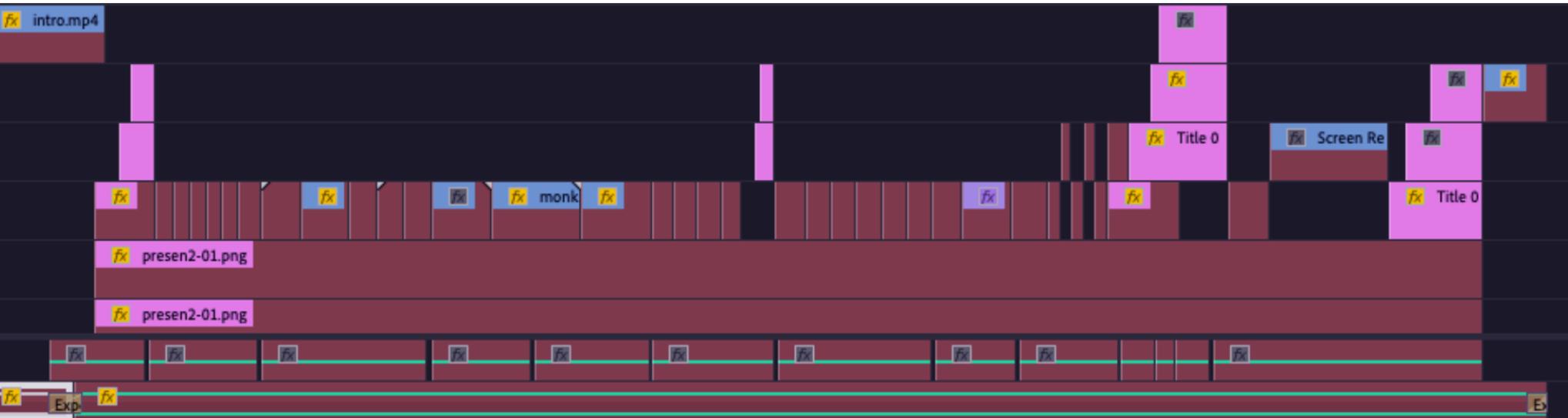
BEGINNING STAGES

To figure out the style we wanted for the game I played around with gradients to see how they would look by being in a pixel by pixel format. I also grabbed a few illustrations online that had the same theme but had different illustration styles to figure out what our team wanted to achieve visually.

In the bottom image, I did a quick vector of a tree with simple highlights to see what the 8-bit would pick up and what would be hidden. This helped us understand that a simple design is the way to go.

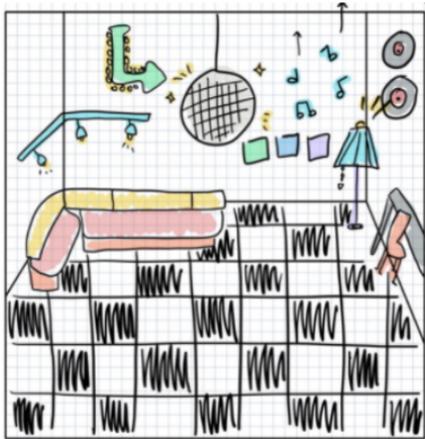


I used examples of other 8-bit games and retro-styled visuals to show how we wanted our game to look. Instead of doing still images of the 8-bit point and click game examples, I included 4 screen recordings of the actual games themselves. As you can see in my timeline, I was able to use quick still images, text visuals, and screen recordings to keep the audience engaged.



DESIGNING THE DISCO

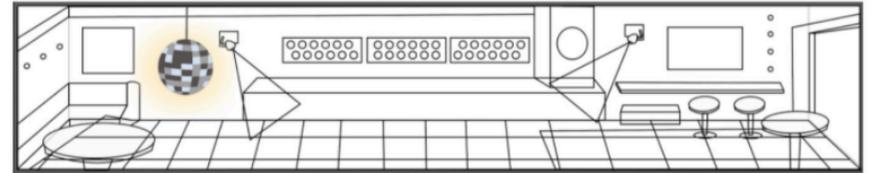
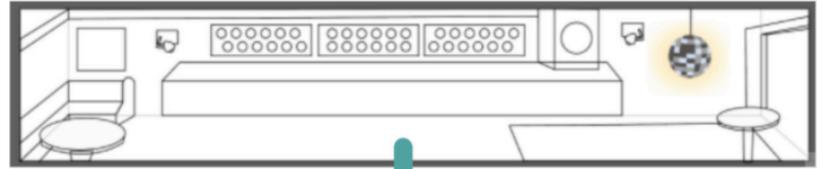
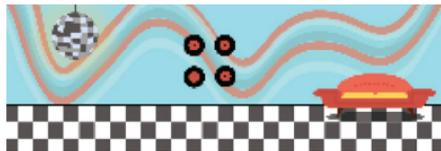
I had a lot of trial and error figuring out the perspective of how I wanted the room to be and where I wanted the main elements to be located. The main subjects that I knew that I needed to include for the disco room are a disco ball, some sort of indication that there is music being held in the room,



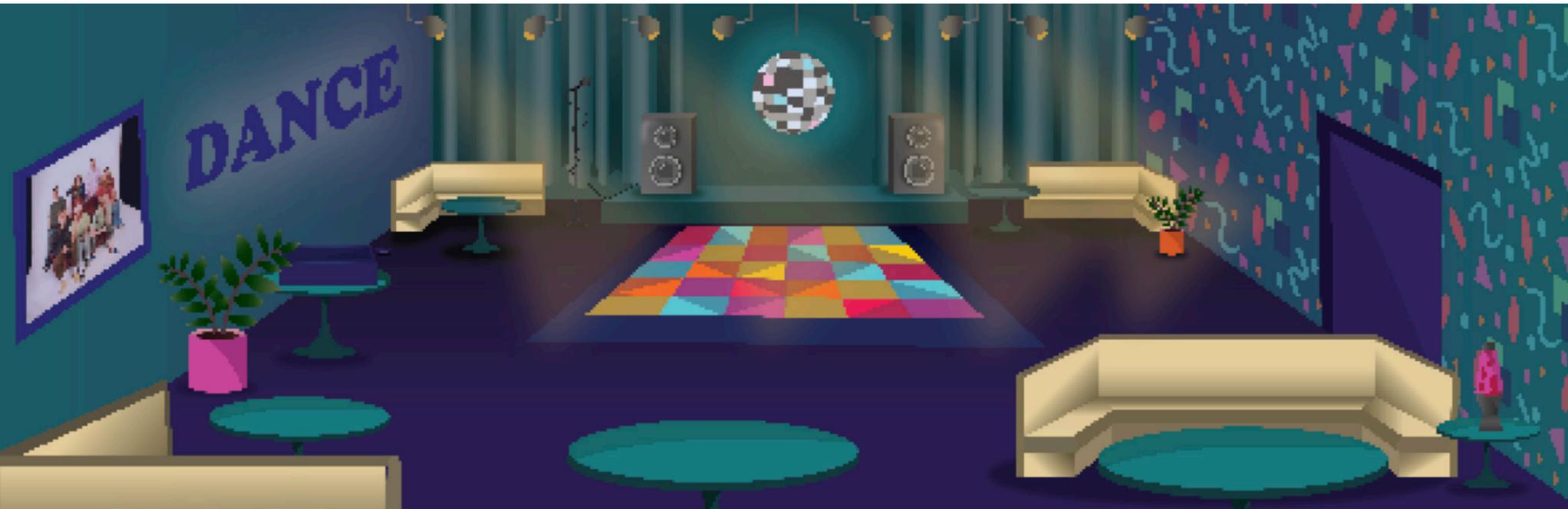
couches, and a fun floor.

This was a quick sketch I did here without really understanding how the character would interact with the room, which I then scratched the smaller room idea and instead did a wider version.

I wanted to do a wider version so I was able to fit more items in the room that the character could interact with. While designing this, I noticed that this was looking like too much of a living room instead of a disco room that people would dance in. In this draft, I wanted to get rid of the distracting floors and walls because it was still not feeling like a place to host a party.



In my third sketch, I included a section in the back for speakers with some sort of stage to show that the room was bigger than it feels. I also added a stereo to showcase that music is being held in this room, with the addition of lights for a fun effect. After figuring out that I needed even more space for this room to feel like a fun area to dance in, I finalized my main sketch.

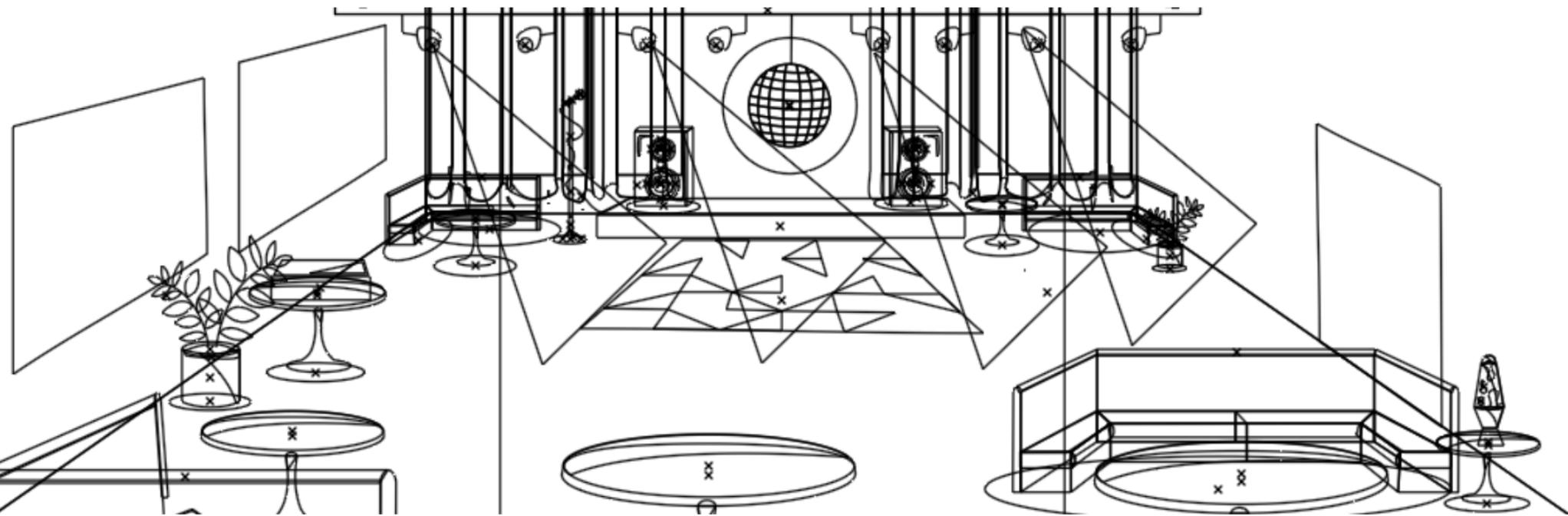


In this room, I finally nailed down the perspective and the feeling of enough space to dance in. Instead of doing thick black squares all the way across the floor, I opted in doing a simple dance floor with bright lights. I included a small stage that held the speakers and corner couches that made the room feel bigger by

having them closer to the walls. The foreground and background really helped the area feel alive and ready for characters to party in! Well, for them to figure out the murderer while DJ Debra danced her little heart out.

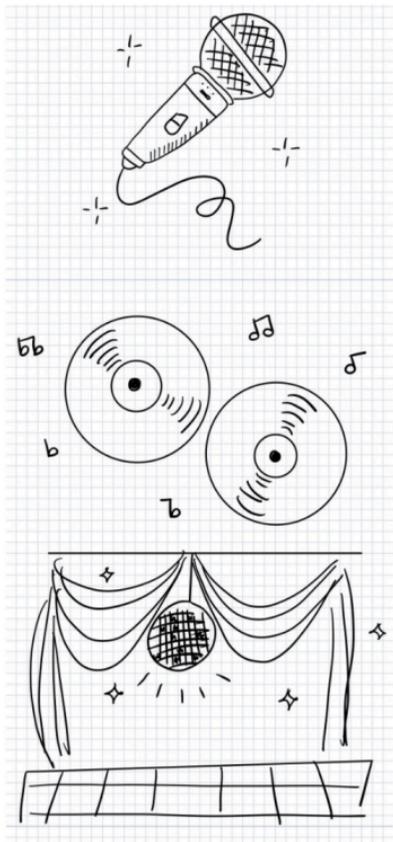


Designing the disco room, I included a lot of detail in my vector illustrations with the usage of shadows and highlights. I feel like this really helped the items come to life, even after they were pixelated. I used the same theme of colors throughout the main elements of the room so everything looked cohesive.



By having the foreground and background nailed down, it was clear where the character was able to go when walking and to help show a 3D effect when they would interact with the room.

Sketching was a great way to get ideas thrown out there, even if they were not used. I was able to sketch ideas for items and elements for rooms. I have learned that you can never go wrong with a sketch because it might spark another idea later down in the line of creating.



ICON DESIGN

Here is an example of a sketch turned into an item. Included here, I showed the process of the sketch, the vector illustration, and its pixel form.

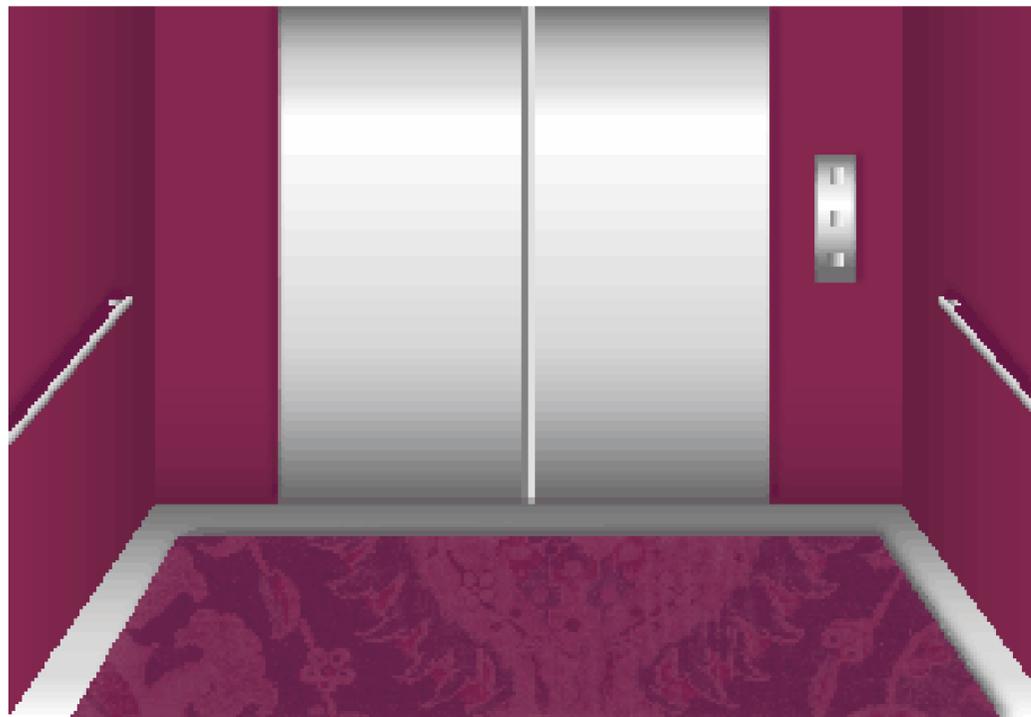
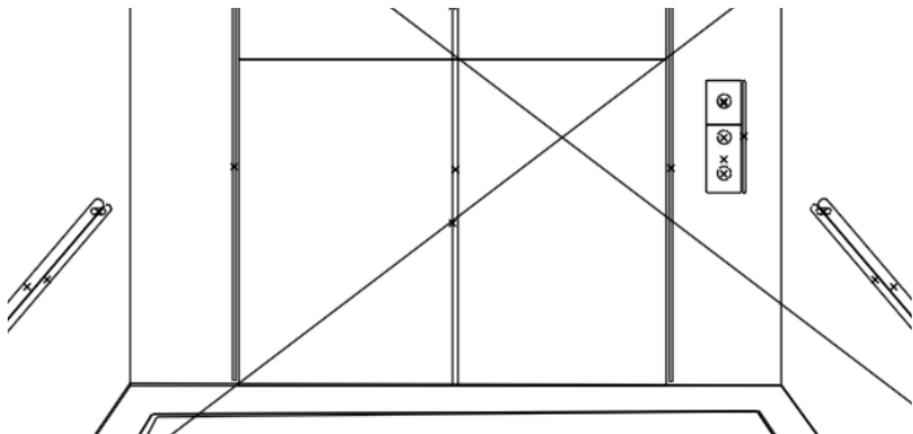


ELEVATOR DESIGN

This was a simple design with the perspective of a small room. We knew we wanted three buttons for the character to “press” to get the text on where they would like to go. I included the doors to take up most of the wall to make the feeling of a smaller, trapped room.

The design of this was very simple, and I incorporated the same color

but with a different value of the hotel lobby so they feel connected in a way. I used a strong gradient to showcase the metal of the elevator buttons and for the elevator door. I also did a small, subtle gradient for the handles to still showcase the same metal being used, but making it a lot softer because of how thin the rod was.



CHARACTER DESIGN

For the rollerskating character, Skating Sally, I wanted to have a fun skirt to show the movement of her skating and big socks to complement the skates. I included the same three colors throughout her clothing so she felt a little more put together.



After doing my first draft, I then went back in and added more detail. By doing this, I added highlights and shadows in her clothing, added pleats in her skirt, and finished off by showing more dimension within her hair, as you can see in my vector illustration.



DJ Debra was fun to make, and as you can see in my first draft she was actually a boy! After looking at our characters, I realized we had the majority of boys throughout the game and wanted to include another girl.



I still used the same style as the draft for the boy, but instead of the tie I included a necklace, and also had her in pigtails with glasses to help enhance her cool persona.

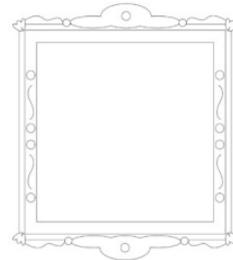
BACKGROUND COLORS

We had great headshots taken of the team by another member, but I wanted to take it one step further and cut out each of the backgrounds. I did this so we were all able to use these photos with any background color we wanted. This was mainly for having us use these photos throughout the game in the picture frame, and since each room is designed with different colors the team was able to pick what color background best fit their room.



PICTURE FRAME

With the usage of the photos, I designed a picture frame so it was cohesive all throughout the rooms of those who wanted to add pictures to their walls. This was a fun way for our team to add a small, fun easter egg of our team member's faces in a pretty frame! I opted to do strong gold medal and soft edge designs for the vector of the frame.



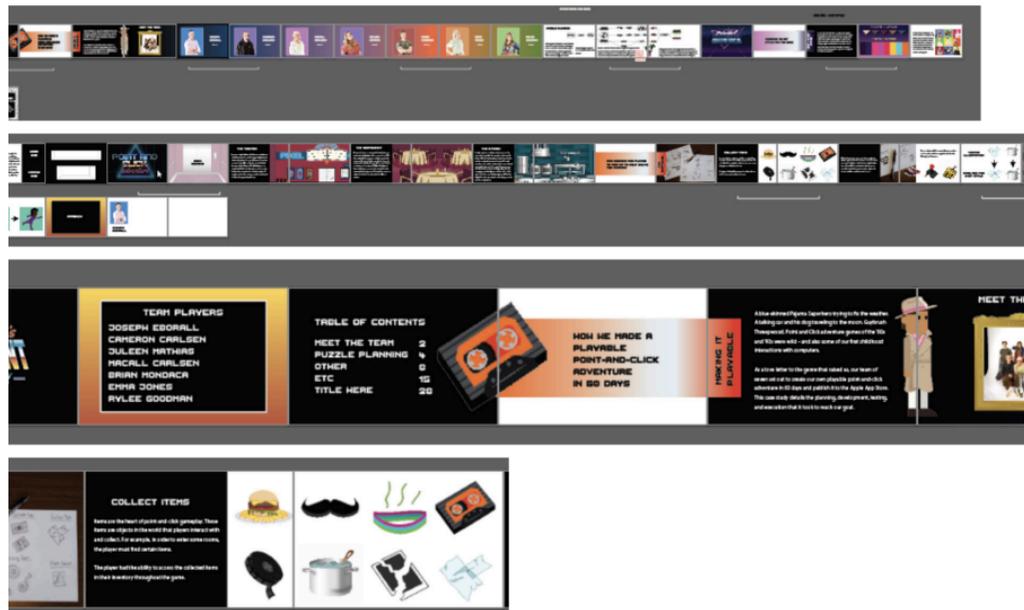
HOUSE PLANTS

To help with white space, I created plants that people were able to throw in their rooms to fill random spots that needed a little spice. Here, I designed four completely different house plants that all have different patterns to best help the space feel fuller.



CASE STUDY DRAFT

I did a draft for our case study that could help the main case study designer have elements or ideas that they could use. This was a way to help the designer use items that they did not have or use similar stylistic themes.



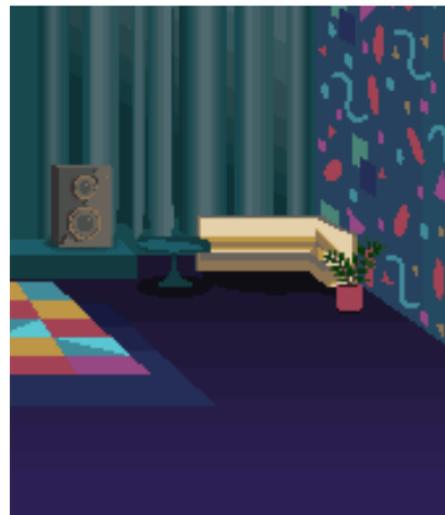
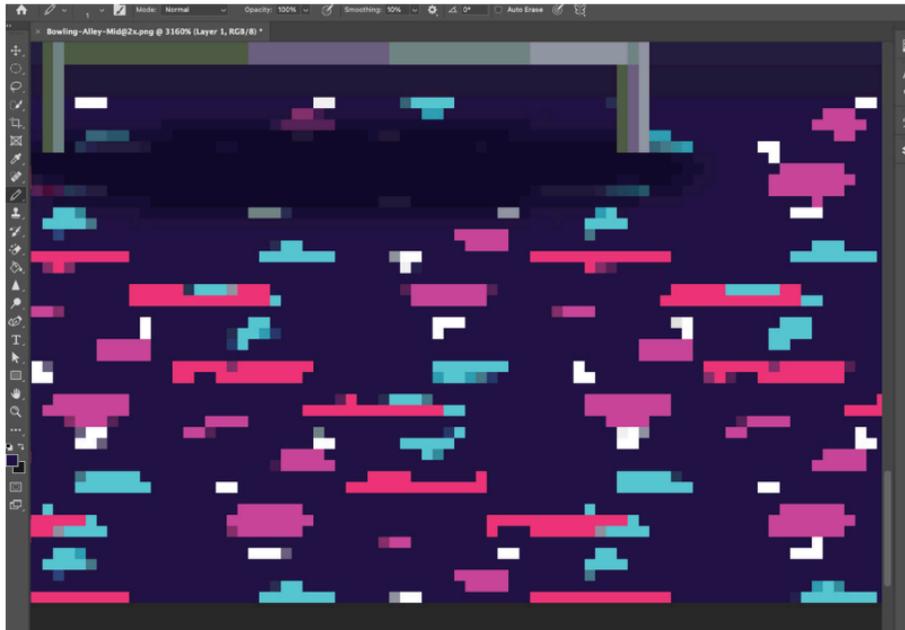
BOWLING ROOM



After getting the main illustration down of the bowling room from another illustrator from the team, I went in and changed a few elements to help it feel more cohesive. I did this by using lighter colors and similar tones to make it feel all like one room. Here, you are able to see the before and after of what I have added and changed.

PIXEL BY PIXEL

I had gone in and made sure that each pixel was uniform and had a reason to be there. By zooming in on my artboard, I used the pencil tool in Photoshop and fixed each pixel that had an off shade to help make it neater. Here is some of the artwork that I fixed, pixel by pixel.



JULEEN MATHIAS

ITEM DESIGN - ROOM DESIGN - CHARACTER DESIGN



Juleen Mathias has always been passionate about design and gaming, so when the opportunity arose to create content for a pixelated point-and-click adventure, Juleen jumped at the chance to work on a project that unified her favorite things while learning new skills with her teammates.

Juleen has always valued creativity in her life, and this project was no exception. Juleen's designs strive to show team spirit and collaboration while also letting her personal style shine through.

ITEM DESIGN

One of the best traits of any point-and-click game is unique and eye-catching inventory items.

Designing the inventory items for this project required special attention to arresting visual design that would draw the attention of the player while staying true to the simplified detail of the pixelated art style.

Each item icon would have to be instantly recognizable while only using a small portion of the screen. I also focused on design unity; paying careful attention to how the items felt independently as well as existing in their designated backgrounds.



My process began with quick thumbnail sketches for each of the items to test multiple design ideas; taking into consideration perspective, angle, and visual hierarchy.

After final sketch designs were decided as a team, the work of vectorizing the items was divided between the team members. This allowed the

whole team to contribute a unique personal touch to a vital element of the game while also helping to maintain design consistency.

One of the team's main concerns as vectorizing began was maintaining a consistent style throughout the items without compromising the overall design's individuality.



This was further complicated as we did not have a style guide prepared at that time.

However, we were able to quickly coordinate on some design rules such as eliminating line strokes around shapes and color palettes. These rules

helped unify the team's work, but required creativity to create depth in such small objects.

I placed an emphasis on cel-shaded shadows and highlights to create a more 3-D feel to an item without compromising the pixelated art style.

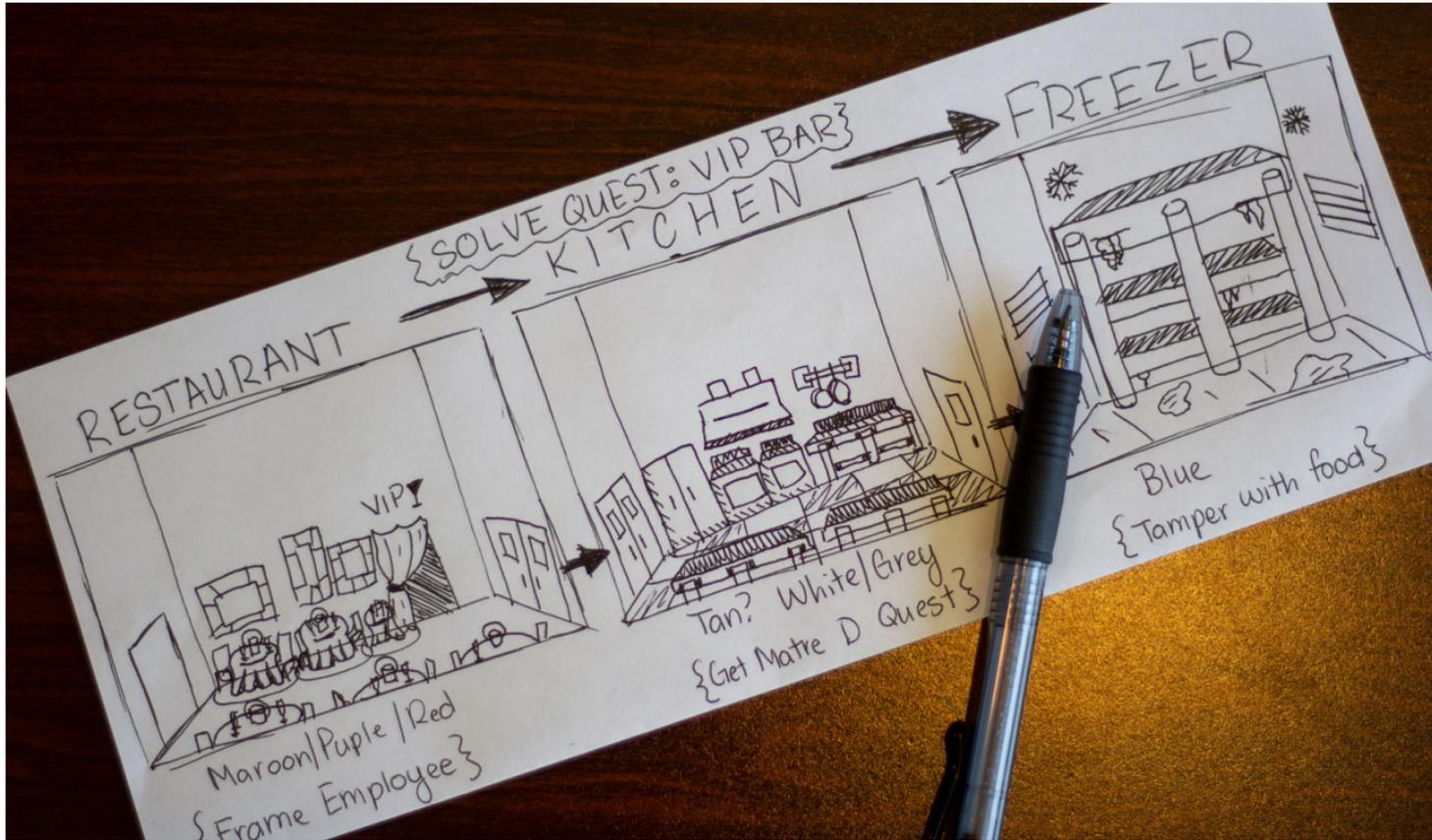


ROOM DESIGN

Visual consistency became a particular challenge for room design. My work included the dining room, kitchen and walk-in freezer areas.

I relied heavily on the style guide color palettes to maintain visual unity with my teammates' work. The rooms were a particular design success for this project in maintaining design unity while showing off personal style.





Designing the rooms began with considering how player navigation should be approached in the narrative of the game. After creating a floorplan and navigation map, I organized how my rooms would flow together without it feeling too linear or unnatural.

After this, further design work took into consideration the interactive items that would be in the room and the stagnant objects that would complement and unify the scene.

The dining room was the first room I executed. My initial concept was an 80's restaurant with a pink theme. The restaurant was vectorized before we created the style guide, so the colors were not consistent.

After getting some critique from my art director and teammates, I was able to convert the colors and designs to fit the style guide better.

In order for to create depth, I exported the foreground and background separately.





The kitchen scene underwent the most changes. When I first designed it, it was very flat and inconsistent with the other room styles.

The biggest problem with this scene was the perspective. After having a discussion with a mentor about perspective and vanishing points, I was able to figure out how to make the room look correct in perspective.

For example, the floor tiles in the first draft were huge and not in perspective. Also, all the items were way too large in comparison to the doorframes. After shrinking the items down and using envelope distort on the floor, I was able to make things appear to be in the correct perspective.



The freezer scene did not see many alterations. I was fairly happy with my first draft and worked on adding different assets into the scene.

For the freezer and kitchen, I created different assets to include on the shelves. This helped each room feel like they had a function and purpose in the game.



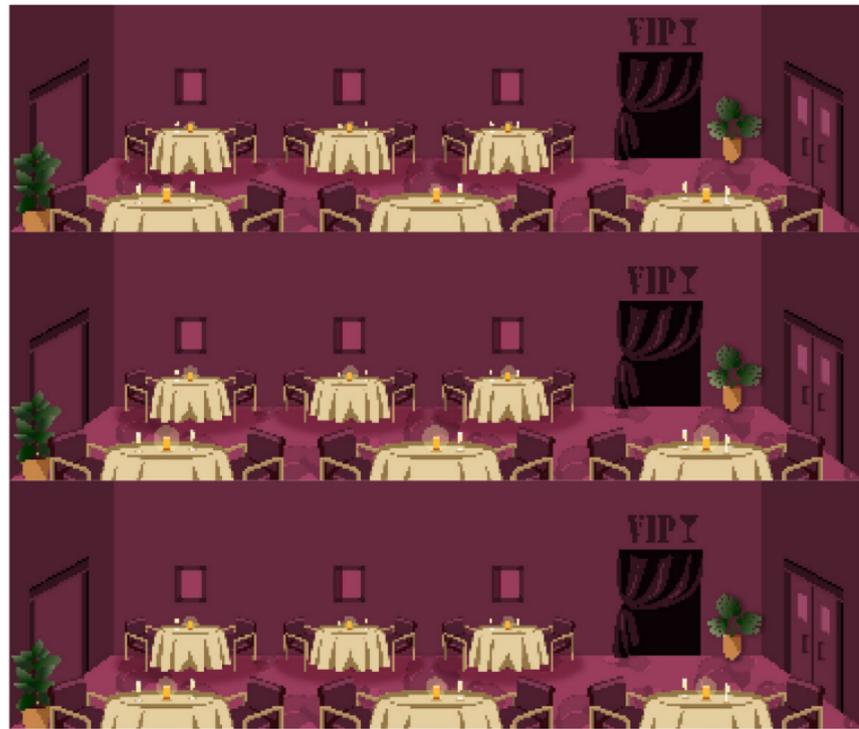
For the kitchen and dining room scenes, I had some simple animations. To create these, I duplicated the original artboard



and only changed moving parts to keep the rest of the scene stagnant.

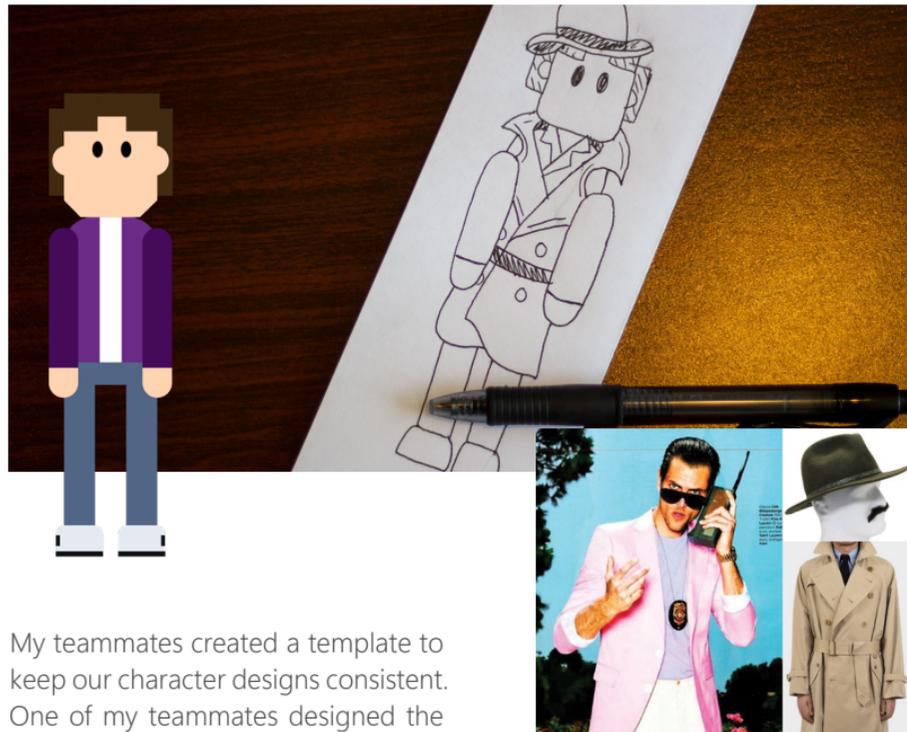
The kitchen had different steam sequences rising from the pots and water dripping from the sink.

The restaurant had flickering candle animations.



CHARACTER DESIGN

I designed the look of the main character, JJ McReb. Since our game takes place in the 80s, I wanted JJ to basically scream '80s detective. The bright pink shirt and white pants were a perfect tribute. Although, no one can forget the iconic trench coat and matching fedora that pulls any detective look together. And with that, JJ McReb was born.



My teammates created a template to keep our character designs consistent. One of my teammates designed the first draft of JJ in a purple jacket. It was a great design, but we got some critique that mentioned our main character should be the most unique and recognizable character.

With that feedback, I took to creating some mood boards to find some inspiration for our beloved detective.



When designing JJ McReb, I had to acknowledge his different perspectives. For the character to move around, they need four different perspectives: front, right, left and back.

Once I finished the front perspective, it was fairly simple to alter the vectors to give the appearance of a side and back view.

CHECK OUT MY WORK

Thank you for taking the time to read through my process and view all the hard work that I dedicated to making this game.

I am proud to look back at the work that was created throughout this project. Nothing would have been possible without my incredible team.

If you would like to see more of my design work beyond video game design, check out the links below.



<https://www.facebook.com/juleenmathias.designandphoto>



<https://www.instagram.com/juleenphoto/>



<https://juleenmathias.com>

THANK YOU

EMMA JONES

Photographer, Character Design, Case Study Design, Pixel Perfection



Emma Jones has had a flare for creativity her whole life and has always loved to create! She is extremely passionate about art in all forms, and prides herself on her ability to allow her personality to show through on everything she creates.

Not only does Emma love to create, she also loves people. Being able to learn and gain new perspectives from other people is one of the things that continuously keeps her pumped to get out trying new things.

When the chance came her way to be apart of a team to help create a video game from scratch, you bet she hopped on that opportunity!

WHAT IS IT?

What is JJ McReb's Excellent Adventure?

It is a retro point and click video game. Point and click video games were all the rage back in 80's.

This point and click adventure is a murder mystery where Detective JJ McReb takes on Hotel Muder to try and find the killer.

The goal while creating this game was to make this game look and feel as retro as possible. Making it feel as if the game was created back in the 80's.



The idea behind the group and individual photos was to honor ourselves while honoring our retro 80's theme as well.

The white background was chosen because it adds contrast to the photo while keeping them bright and simple. This look makes the photos look professional and spunky!

As for the group photos, the goal was to go for a "friends" or "breakfast club" feel with our posing, expressions and the couch.

The setting of the excess space on either side of the background gives a behind the scenes feel, making the photos have personal vibe to them. As if the consumer has an inside scoop of our group's relationship and interactions.



PHOTOS

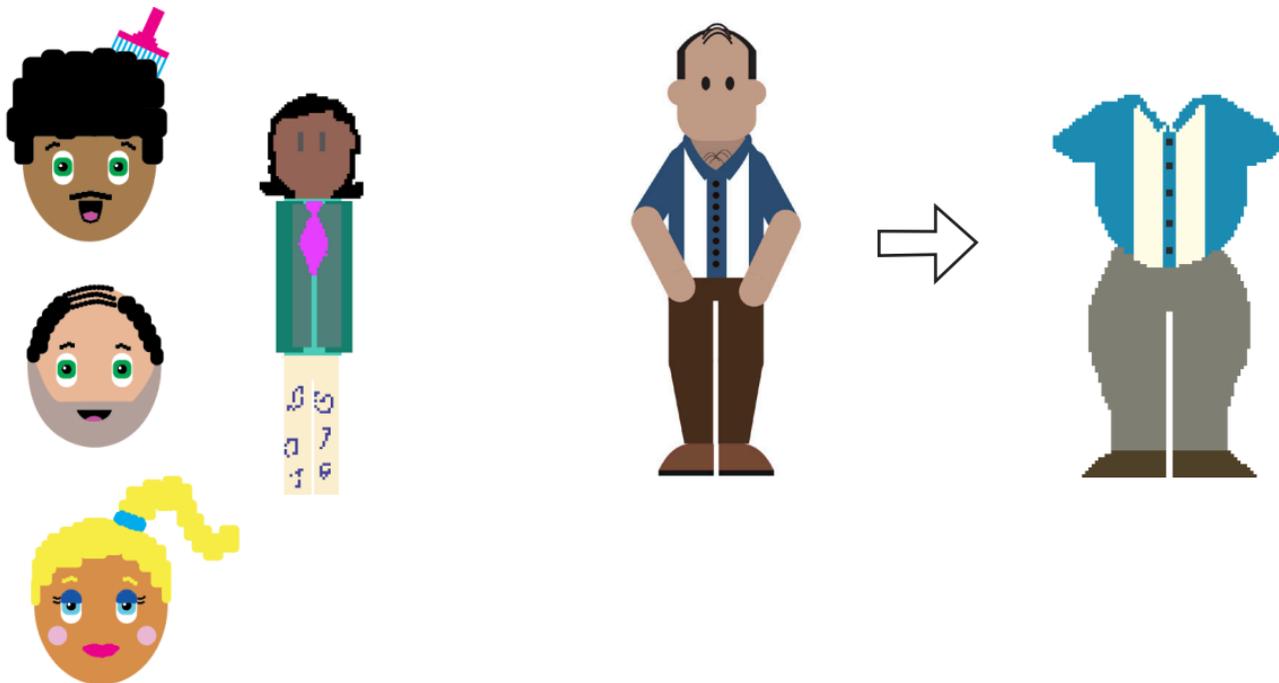


CHARACTER DESIGN

I originally created the characters heads and faces in Adobe Illustrator. However, it was difficult to truly imagine the characters in pixel form while not pixelated. I decided to change tactics and started creating the body drafts on a website called piskel. This made it much easier to truly have a solid idea of what these characters are going to look like.

A trusted colleague suggested that the silhouette of the characters' bodies were lacking that oomf needed to really bring out their individual personalities.

So, the changes from a generic body type to a more recognizable, unique and energetic body type was created.



PIXEL PERFECTION

When we decided to do pixel art, we had no idea how meticulous and precise we had to be in every single design.

We originally let photoshop do the pixelation for us. However, we soon realized that this way of pixelation made our designs look sloppy and even misshapened. So, we decided as a team that we needed to implement pixel perfection.

I then took on the project of looking at each pixel of a character and even entire rooms, and making sure every pixel was "perfect".

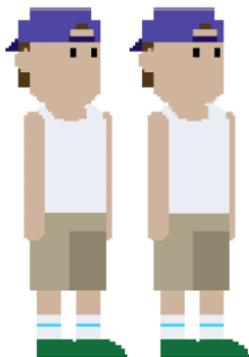


Left - After pixel perfection

Right - Before pixel perfection



PIXEL PERFECTION



CASE STUDY DESIGN

The 80's were fun, energetic, bright, and very loud!

A lot of gradients, bright, loud colors and big block letters is what came to mind when trying to brainstorm what a case study from 1985 would look like. I wanted the case study to feel like it was a case study being read from back in 1985. From the typography, to the colors, to the neon lights.



TAKE AWAYS

Creating J.J. McReb's Excellent Adventure was definitely an adventure in itself! There were many bridges myself and my team had to cross and work through. From behind the scenes to the actual visual work, there was never an easy task. However, these challenges are what pushed us to create work that each of us are extremely proud of. J.J. McReb's excellent adventure is one of my very favorite accomplishments.



APPENDIX: BRIAN

Room Design - Character Design - Icon design

Email: brian.mondaca1@gmail.com

Instagram: [@Brian Mondaca](https://www.instagram.com/BrianMondaca)

OVERVIEW:

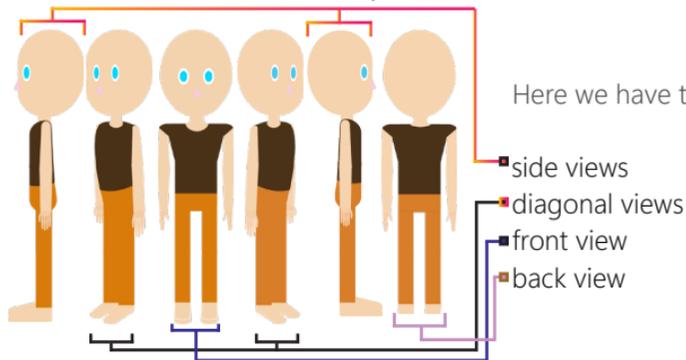
For the point and click game, I made the VIP Bar scene, the Theater scene, and a character template.

I will give a quick description of the design process for each asset, or scene, and will provide visuals to see it for yourself.



CHARACTER DESIGN:

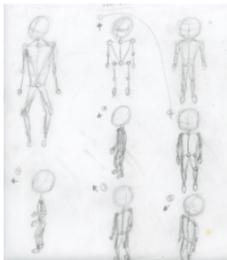
Before we could start making the characters for the game, we needed a template for the team to use. So, I volunteered to create the templates.



I needed to make the templates in different perspectives. This is so that the characters in the game can walk in different directions.

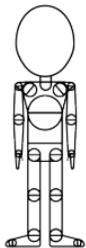
CHARACTER DESIGN:

To make those templates, I started by sketching first.



At first I made a sketched out a big version of the character template, but the team and I decided to make the body smaller--from the shoulders-down--and to keep the head roughly about the same size as the bigger first. We decided this because we like the look of a big head, but small body look.

After the sketching process was done, I made a quick draft of the character template, sort of like a the "skeleton of the character.



I took me a while to understand how to make this "skeleton". The hardest part was to make it ready for animating in After Effects. I needed to make it so to have each limb be able to move naturally while being rigged.

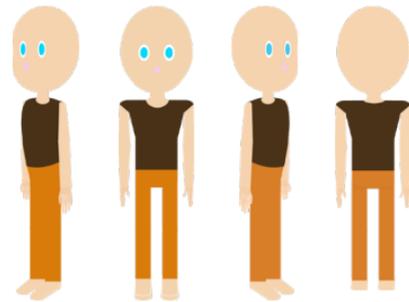
So to properly make a riggable character, I looked up a tutorial on youtube. From this, I was able to create the skeleton shown above. Each circle is a joint, which are connected to each limb. In theory, this is supposed to help the limbs move more naturally during the rigging process.

Here you can see a close of a limb and its respected joints. Each circle is a joint. As shown, there are three, which connect the hand, forearm, and upper arm together.

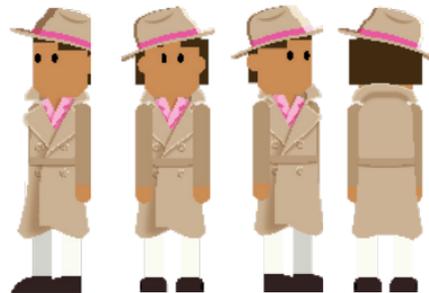


After making the draft, I went ahead and made the templates. From these the team was able to turn the templates into characters in the game, each with their own personalities shown in their awesome designs.

Here you can see the templates used to make the main character, J.J. McReb.



J.J. Mcreb



SCENE DESIGN:**Theater scene****VIP Bar scene**

The scenes I made, were the VIP Bar room and the Theater. Both of these rooms I had a lot more fun with because of the cool items and detail I was able to put into them.

THEATER:

The theater has a basic feel to it. The colors are consistent with the style guide used throughout the project. We have the maroon on the walls, the blue and oranges on the posters, as well as the signs. The signs of a slight neon on look, which we, the team, hoped that the neon look will help give the theater an 80's style.

**Neon sign****Posters****SKETCHES:**

Here are the sketches for the theater.



Sketching it gave me a better idea of what I wanted the theater to look like.

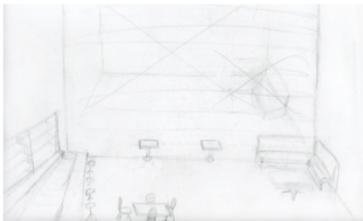
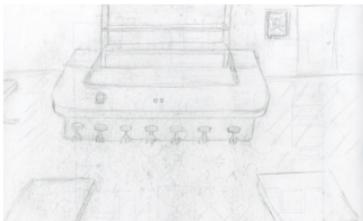
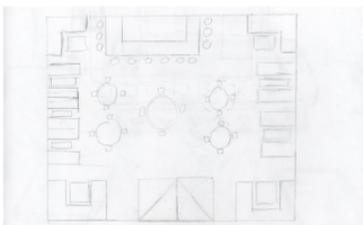


Here are icons that that were made for the theater.

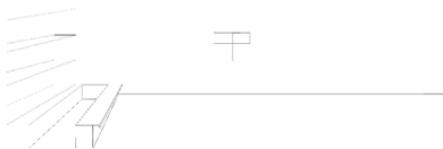


VIP BAR SCENE:

Here are the sketches for the VIP Bar.



It took a view sketches to get the look I wanted for the bar. At first I thought I wanted to have the front view of the bar. But. I wasn't satisfied with it, so I sketched some more and made the side view instead.



After making the draft, I decided to still with this perspective of the bar and went ahead to make the scene.

**DETAILS:**

Here was the first look of the bar.



I set up the tables, bar, lights, and furniture. Now, that the basic look of the bar was made, it was time to add more details.

ICONS:

All of these icons were made to give more character to the bar. We the pool table, the accessories to the pool table, the mount to the pool sticks, the chairs, alcohol flavors, beer bottles, regular glass cups, shot glasses, the balls to the pool table, and the jukebox.

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CONCLUSION:

Making this game was a fun experience. From the assets I built for it, I was able to hone my skills in in graphic design and better my ability to work in a team.

Thank you for reading my portion of the case study.



Email: brian.mondaca1@gmail.com

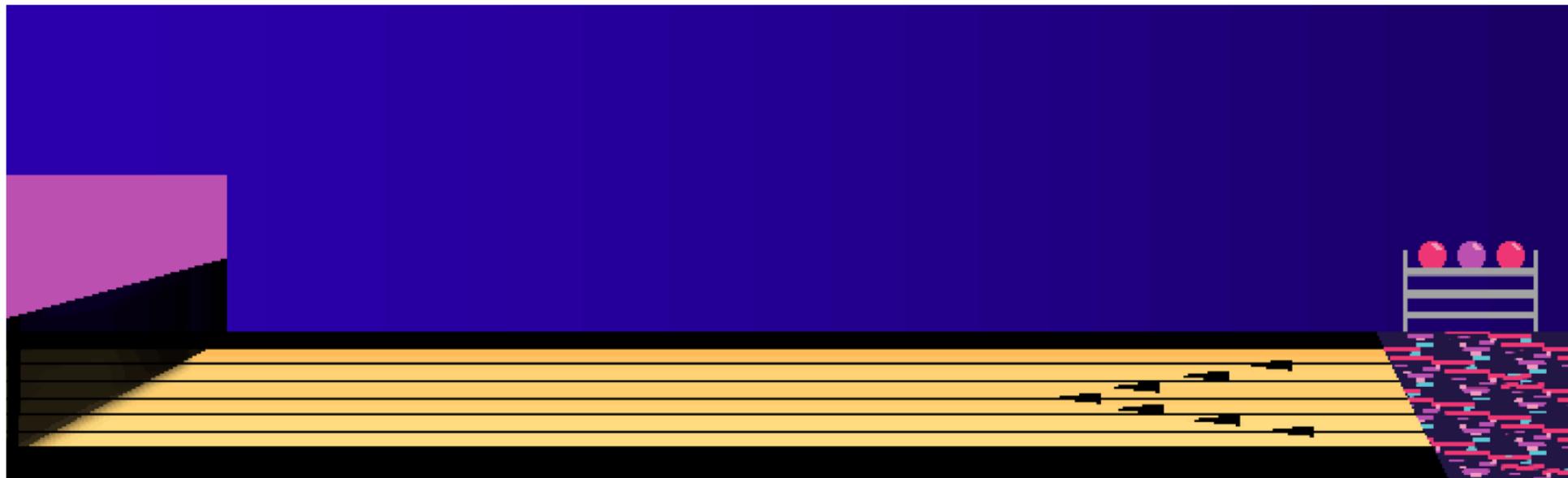
Instagram: [@Brian Mondaca](#)



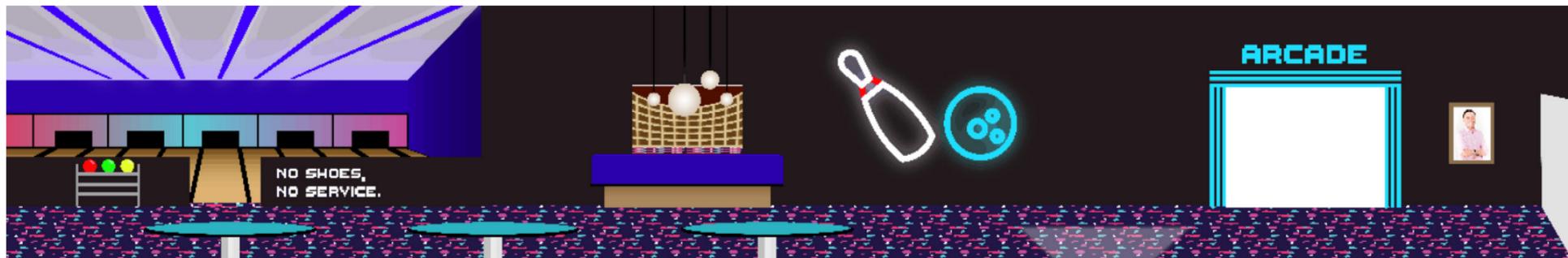
JOSEPH EBORALL

Design & Code

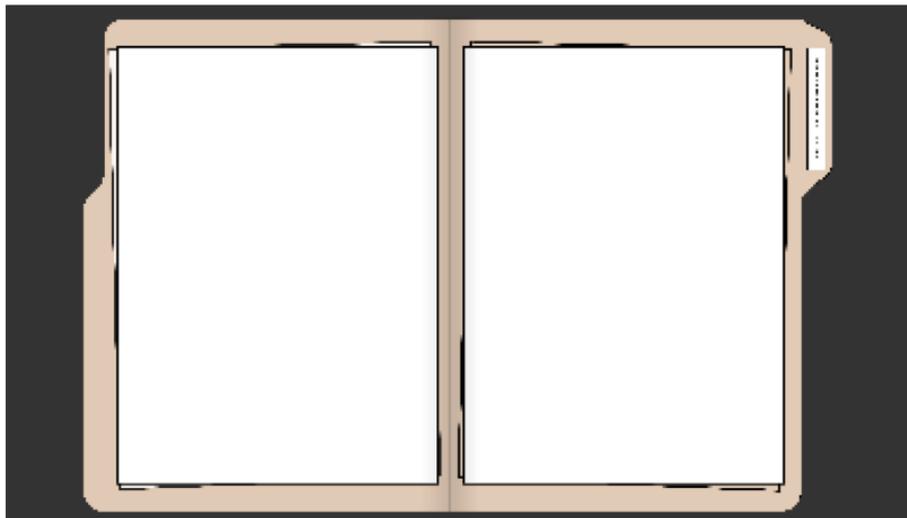
BOWLING LANES



BOWLING LOBBY V1



GAME UI



GAME PROGRAMMING

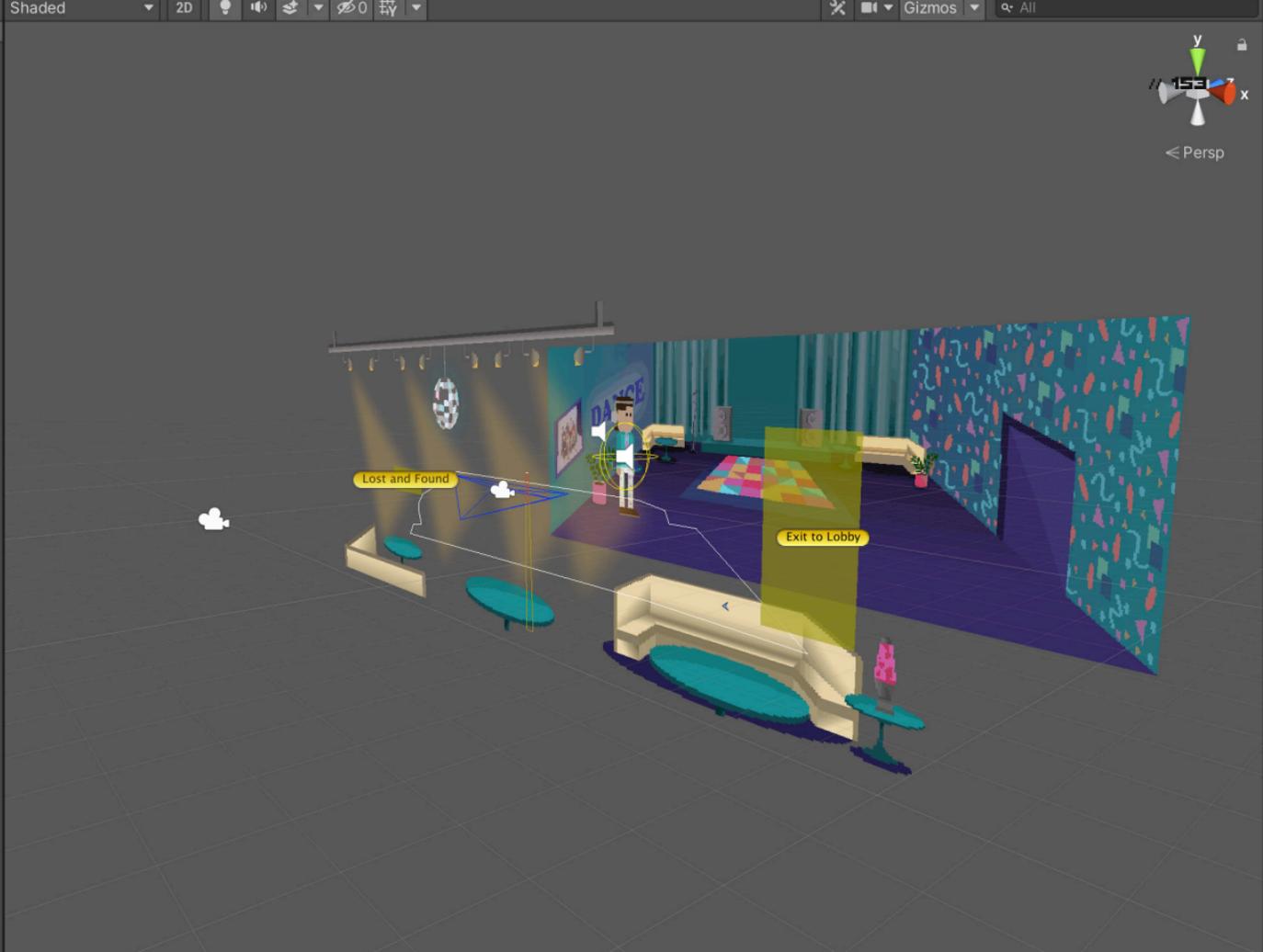
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V1T*2E1T12beakTud = 197ee;
{
  bLTW1Gc A0TQ 0u22eob2beecu (C19AL 2beakTudC19ALc1e1)
  // 2e1 2beakTud to 197ee and 21ob 2beecu
}
}
  V1T*2E1T12beakTud = 197ee;
  T1 (2beakTudC19ALc1e1 == 0e1C0Ab0eue1 <C19AL>()) {
  // 197ee and 197ee 197ee 197ee 197ee
}
bLTW1Gc A0TQ 0u22eob2beecu (C19AL 2beakTudC19ALc1e1 2E1Tud 0beec1Tee1)
}
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  EAw12u19e0e1.0u22eob2beecu -= 0u22eob2beecu;
  // 197ee 0u22eob2beecu and 0u22eob2beecu 197ee197ee
}
bLTW1Gc A0TQ 0u197ee01e ()
}
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  EAw12u19e0e1.0u22eob2beecu += 0u22eob2beecu;
  // 197ee 197ee197ee and 0u22eob2beecu 197ee197ee
}
bLTW1Gc A0TQ 0u197ee01e ()
}
}
  21e1T1C01e01e1Tud(197ee01e(2beakT197ee1e1));
  T1 (V1T*2E1T12beakTud) {
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  bLTW1Gc A0TQ 197ee01e1e () {
  b197T1C 197ee01e197ee V2?
  // 2beakTud 197ee01e 2beecu
}
  b197T1C 197ee01e197ee[] 0197ee1e1;
  // 197ee01e 197ee01e197ee
}
  b197T1C 197ee 2E1T12beakTud = 197ee;
}
197T1C C19AL 0197ee197ee197ee : 197ee01e197ee1e1.
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```



- Disco*
 - Main Camera
 - DJ Debra
 - Character Temp
 - Sound child
 - Conversation
 - GameEngine
 - Disco BK
 - _Cameras
 - _GameCameras
 - _Cutscenes
 - _DialogueOptions
 - _Interactions
 - _Lights
 - _Logic
 - _ArrowPrompts
 - _Conversations
 - _Containers
 - _Hotspots
 - Lost and Found
 - Exit to Lobby
 - _Triggers
 - _Moveables
 - _Tracks
 - _Navigation
 - _CollisionCubes
 - _CollisionCylinders
 - _Markers
 - _NavMeshSegments
 - _NavMesh
 - _Paths
 - _PlayerStarts
 - _SortingMaps
 - _NPCs
 - _Sounds
 - _SetGeometry
 - _UI
 - BK Lights
 - Tables
 - Audio Reverb Zone
 - Audio Source

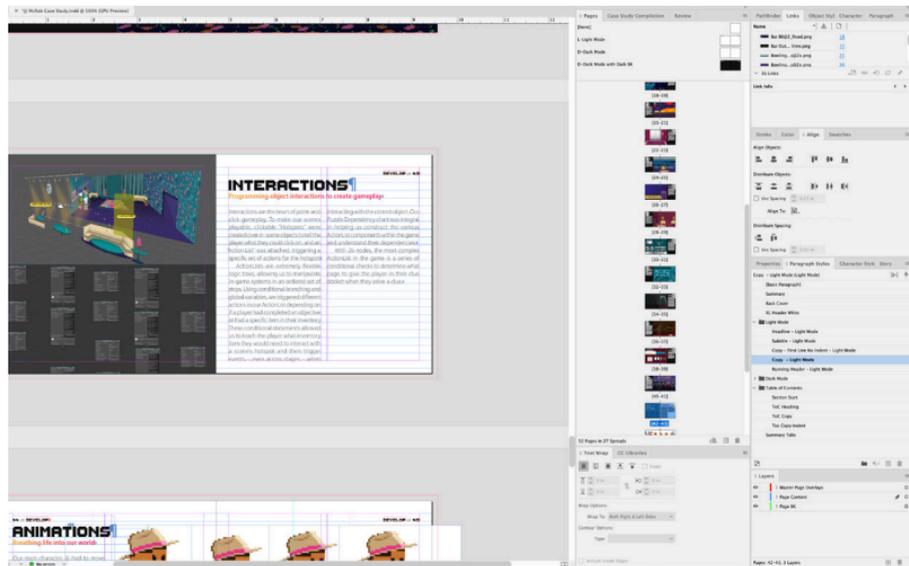


< Persp

ICON DESIGN



CASE STUDY LAYOUT



EBORALL

JOSEPH EBORALL

EBORALL.DEV