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Year 11 SDD Assessment



Game Design Portfolio

An important component of the design process is researching solutions that already exist. This allows designers to understand what has been done before and to identify areas for improvement. In the case of games or apps, for example, researching other games or apps that have been developed can provide valuable insights into what works well and what doesn't. For example, one game that has been developed is "Angry Birds," which is a popular mobile game that has been downloaded over 4 billion times. Another game that has been developed is "Candy Crush," which is a popular mobile game that has been downloaded over 2.7 billion times. Both of these games have been successful due to their simple and addictive gameplay. However, they also have limitations in terms of graphics and level design. Therefore, designers can learn from these games and improve upon them in their own designs.

Game/App 1:

Title: Overwatch 2 Developer: Blizzard Entertainment Platform: PC/PS/XBOX

Target Audience: 14-35-year-olds who enjoy 5 v 5 FPS multiplayer games with characters that have different abilities are available

Key Features:

1. Has an objective that players can fight over and win the game
2. Has customisation for the unique characters available. Gives players a choice of what style they want
3. Different players have different types of abilities for players to utilise. There are also different classes/subcategories such as tank, damage and support.

Assessment:

1. How does the game/app compare to similar games/apps in terms of graphics and design?
There is another game that is just like Overwatch 2, it is called Palidins. These games are very similar in terms of what the game has to offer as they both have the same key features. However, Blizzard Entertainment has maintained a much higher quality of gameplay, higher graphics, and quality of game design which has in turn gotten them more users than their competition.
2. What is the game/app's replay value?
I would consider this game's replay value a 9/10. This is due to the game having a competitive mode that evens out the player's skill levels. The ability to have multiple characters and their abilities to choose from convinces users to come back to the game and learn the new skills that are available. Finally, the only downside of overwatch is that it can get repetitive for the players which decreases the replay value as it feels like they are doing the same thing over and over again with little changes.
3. How user-friendly is the game/app?
I would consider Overwatch 2 very user-friendly for two main reasons. These reasons include characters that vary in nationalities and race which shows how the game is including various cultures. The other way that Overwatch 2 is user-friendly is because of its ease of learning characters and its easily navigatable menus which make it friendly and undaunting for new players.

4. Are there any bugs or glitches?

When the game was first released there were a variety of glitches that rose up. However, over time, Blizzard Entertainment has since removed them and has put a hard barrier in place to prevent further glitches which permanently bans users if caught.

5. What could be improved about the game/app?

There isn't much that could be improved, however, one thing that I would like to see it new types of game modes that differ from the usual standard gameplay. This might increase its replay value as players might have a new reason to come back to the game for the new modes.

Game/App 2:

Title: Fifa Developer: Electronic Arts Platform: PC/PS/XBOX

Target Audience: Children and sports fanatics that enjoy a game that they can grind

Key Features:

4. Has player customisation of their character and team to suit the user's wants.
5. Has an online and multiplayer feature to play with friends
6. Has an advanced physics system for players' bodies and the ball. The player's body collides in the same way that human bodies would collide in a real football game, same with the ball mechanics and how a ball glides through the air based on how hard the ball is hit.

Assessment:

1. How does the game/app compare to similar games/apps in terms of graphics and design?

Compared to other sports and football games that aren't made by EA it looks and feels graphically and mechanically, better, faster, and overall higher quality in gameplay. This is due to EA's high efforts in making the game feel more realistic. They have incorporated features such as the AcceleRATE system, World Cup game modes, Powershots, Advanced Impact Physics, and AI Tactical Awareness. These are just some new features that Electronic Arts announced at the beginning of their new FIFA 23.

2. What is the game/app's replay value?

I would consider this game's replay value a 7/10, this is due to constant weekly releases of new content that are adapted to the game's current state which makes it an enjoyable experience to use new players weekly, to add to this there is a rewards system that gives the user packs on a weekly basis if you reach a certain number of wins against opponents. Not to mention the extremely high graphics that come with this. However, I didn't give it a 10/10 due to how the game can sometimes feel repetitive since the gameplay doesn't change, only the customisation of players changes.

3. How user-friendly is the game/app?

This game is extremely user-friendly in terms of ease of use and inclusivity. The menus of FIFA are really easy to use as they have main headers that can be navigated with ease. In the main mode of FIFA, you are able to use players from all across the world, including international teams and for the first time women's teams too. In another section of the game, the customisation comes to a whole new level which enhances the inclusivity as you are allowed to customise your character to look exactly like you.

4. Are there any bugs or glitches?

EA is known for its bugs when they release context with something not appearing for some players but are there for others. But this is still very rare and not game-changing by any means. Other than the occasional bug or glitch, the game consistently and smoothly provides an enjoyable replayable experience.

5. What could be improved about the game/app?

There are a couple of things that could be improved about the game such as different modes so the game doesn't feel repetitive. Also, the incorporation of cross-play so that you can play all the modes with friends.

Based on your research and ideas, create a basic overview of your game. Highlighting the gameplay, features and target audience.

Gameplay idea

To create a game that is set in a forest where you are being actively hunted by spiders and you need to get different coloured keys to unlock doors, chests, and safes to upgrade your weapon and eventually increase your firepower.

Features

Key System where you can pick up keys and unlock locked doors. Around my game, I will have a variety of coloured keys placed around the map where the player can walk up and interact with them. Once the key is collected the character will be able to use the key in different colour doors which will unlock rooms or chests which contain different types of guns which will be able to kill the enemy spiders.

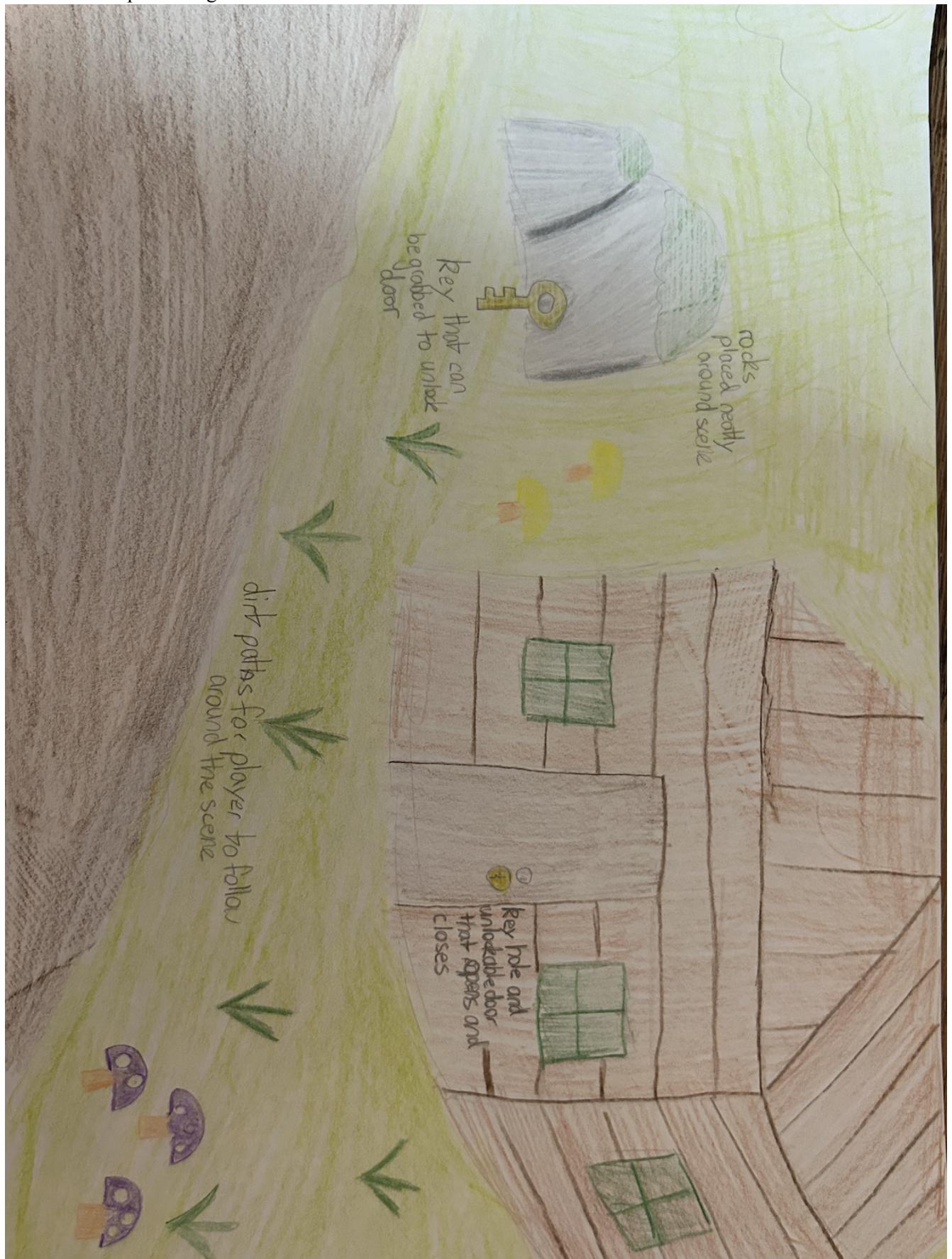
A weapon that can fire proper projectiles that collide with the enemy spiders. In my game, you will be able to get new and different weapons. As you progress through the game your gun will get more powerful. Starting with a pistol and eventually progressing to a minigun. Each of these guns will be able to fire projectiles at the spiders; each has different amounts of damage, rate of fire, ammo capacity, reload times, spread, and most of all a projectile that is fired when shooting that is able to collide with enemies.

A pick-up and drop weapon system where you can drop your old weapon and pick up a new one. In my game when you unlock a new weapon you will be able to drop your old weapon and pick up the new one which will enable you to get an upgrade and improved weapon to kill off the spiders.

Target Audience

My target audience for this game is males between the age of 14-35 who love the idea of an enchanted fantasy world combined with an FPS game that contains challenges and objectives to get to new and better weapons.

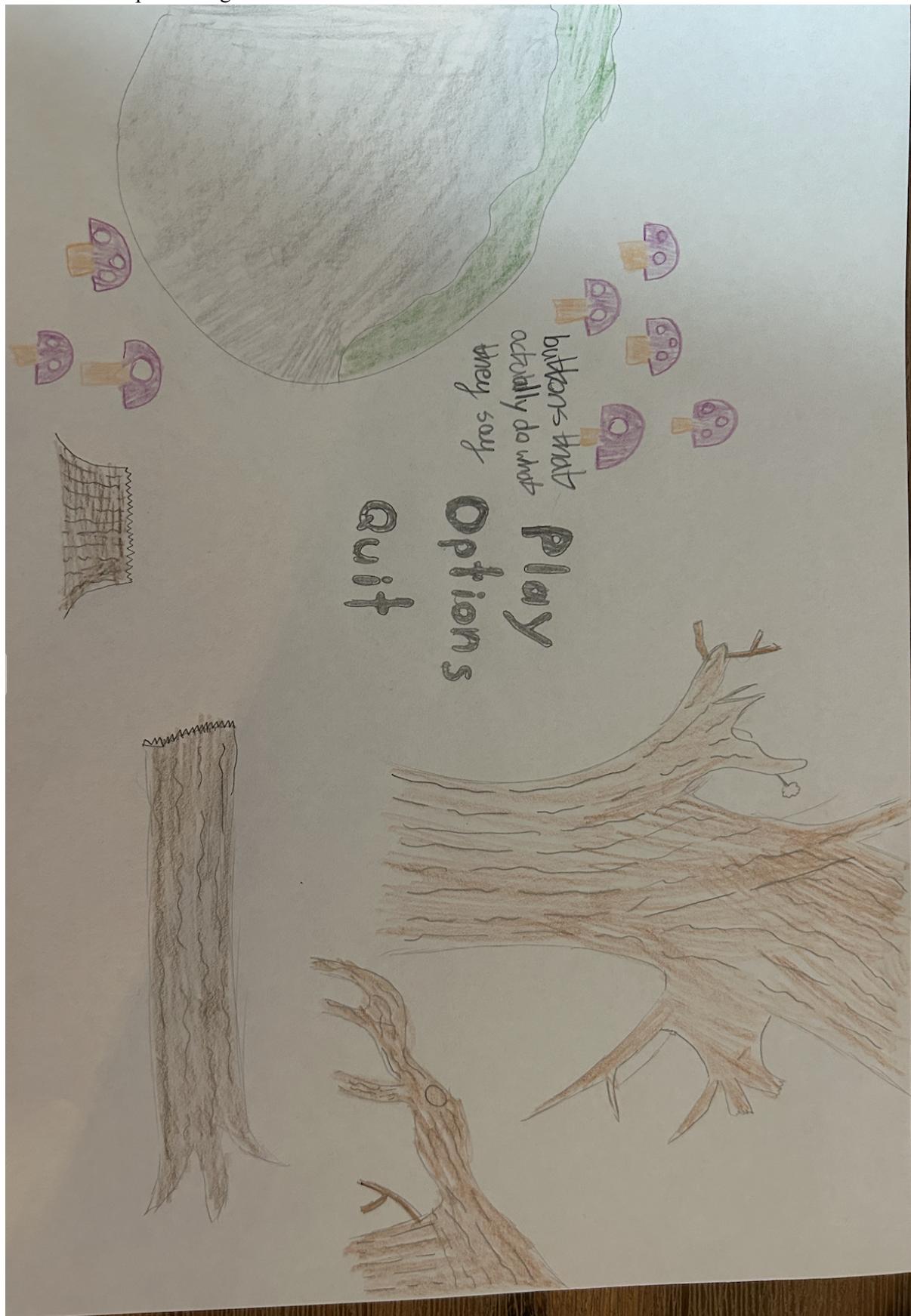
Create a concept drawing of the first screen.



Show the concept drawing to two friends or family members and ask them the following questions:

1. How well does the concept drawing convey the theme and overall aesthetic of the game/app?
Friend 1: It shows the key concept that he is trying to go for with the coloured mushrooms, rustic log house and keys.
Friend 2: It could be improved with more of the enchanted feeling with a dark setting where it feels a bit haunted
2. Are the key features of the game/app clearly represented in the concept drawing?
Friend 1: The key and door system
Friend 2: A pick-up-able key
3. How well does the concept drawing convey the intended audience for the game/app?
Friend 1: The intended audience was for a fantasy world and the mushroom resembles that however, I would add more to convey this idea stronger.
Friend 2: He said the audience was 14-35-year-olds that like FPS games, and this opening screen doesn't resemble a first-person perspective.
4. How well does the concept drawing convey the intended gameplay of the game/app?
Friend 1: There are no spiders that can be seen or shot so maybe add some to convey that they are what is chasing you
Friend 2: Do you start with a gun to protect yourself, there is no gun that is visible in the starting scene, how is the player going to know how they are supposed to protect themselves?
5. Are there any elements of the concept drawing that are unclear or could be improved upon in the prototype stage?
Friend 1: Most FPS don't throw you right into the game, maybe add a title screen as the first thing that you see.
Friend 2: There is no visual of the spiders that are going to be the enemy in this game. Maybe consider the player having to run away from the spiders in the first place until they are in a safe zone and then able to loot up and go back to kill the spiders.

Create a concept drawing of the first screen.



Evaluate the changes you made based on the feedback.

From the feedback that I was provided, I decided to create a menu starting screen with options on the screen that allow you to press play and start the game. I attempted to follow the idea of running away from the spiders when you spawn in, however creating a safe zone was a difficult task so I left the player starting new to the house where they are able to loot up first before the spiders get close enough to defeat the player. In the feedback, my friends also talked about how the guns aren't visible at spawn, so I created a key that is coloured to that you know that it unlocks something of that colour. Once you pick this up, in the distance you can see a glowing light of that colour which encourages the player to explore that area. This is where they will find a chest and be able to equip a weapon. Finally, they also mentioned how there was not enough of an enchanted forest feeling in the game. To fix this, I decided to incorporate darker lighting and more mushrooms that glow to provide a glowing forest feeling.

Project requirements

Introduction: A brief overview of the project and its goals.

In my game, I aim to create an FPS game where you are being hunted by spiders. My goal in this game is to create the right feeling in my scene to engage my target audience and their needs. I also intend of creating a fully functioning weapon system where you are able to fire weapons to eradicate the spider population.

Objectives: A clear and concise description of what the project aims to achieve.

I have three major aims that I want to achieve in my game.

1. A key and door system. Where you can pick up the key and use it in a door that animates, opens and closes.
2. Create a weapon that can fire projectiles when you press fire. Included with this I also want a muzzle flash that can be seen when pressing fire along with bullet holes that appear where the bullets collide.
3. A pick-up and drop system. Where you can explore the world and find new and improved weapons that increase in strength and drop your previous weapon for the stronger one.

However, there were some other aims that I wanted to achieve in this game. Such as:

Not only the door opening and closing with a key but having chests that contain these weapons that can open and close as well.

Another aim I want to achieve in this project was to achieve the right feel for the game to achieve my target audience's needs. This means creating a scene that is contained in an area that matches my enchanted forest scene.

An aim that I want to achieve in this project is to create an enemy AI that can freely move around my scene and can kill the player if they collide with each other.

Finally, the last aim that I was to achieve in my project is to create a main menu that has the options of pressing play, options to show the controls, and a quit option.

Scope: A detailed description of the project's boundaries, including what is included and excluded.

In my project, there were many boundaries that I had to consider while producing and polishing my final product. One of the biggest factors for me personally was having little to no experience with coding or C# in the first place. So coming into a new platform with no experience was a large learning curve for me. This meant that I had to consider my challenges carefully and think about what I would be able to achieve with my limited skill level.

Another boundary that had to be considered throughout my project was time. We were given a 2-month time to build this game. It was very hard to come up with an idea and produce that idea on a game level that was what I desired. This also influenced what type of challenges I wanted to create because I wasn't sure if I was going to have enough time to execute them within the time constraint.

While creating my project another boundary that came my way was what is considered to be school appropriate. This was difficult at first since I wanted to incorporate guns into my game. However, I talked to my teacher and he said that it would be okay to add guns to my project as it is a way that I can kill the spiders from a range rather than melee combat.

Finally, the last boundary that I came across was having a \$0 money constraint on the project. This meant that I had to search the Unity Asset Store for prefabs that not only fit the concept of my game but also fit the style and what I personally liked. I found it particularly difficult and spent a lot of time scouring through the pages of free prefabs to find one that suited me.

Ask two friends to review

1. How well does the design of the game convey the theme and overall aesthetic?

Friend 1: I would rate it a 9/10. The colours and glow of the keys match nicely with the theme and the style of the spiders fits the style perfectly. I would say that it matches the aesthetic.

Friend 2: Nice, I like the chests and their contents, cool weapons and bullets

2. How user-friendly is the game's interface and controls?

Friend 1: I like the smoothness of the looking around and the movement. Really cool how the gun drops and picks up. Would help if there was a screen where you could see what controls did what however.

Friend 2: Feels nice, would consider telling the player what the movement and interact control were because when I played it was hard to pick up the weapons because I didn't know how.

3. How well does the game's design support its intended gameplay?

Friend 1: I really love the design of the shooting function and the bullets that it produces especially the raygun inside the house with its lights. Really like the way that weapons can be thrown away and pick-up a new ones.

Friend 2: The animation on the keys is a nice touch same with the door animations. I like the overall layout of the scene as it fits perfectly with the intended theme and it's also easy to navigate around.

4. How well does the game's design support replay value?

Friend 1: It feels like a game that you would play until you successfully reach the ray gun inside this house. After that, there isn't any end goal of the game. Maybe consider adding a goal for the player to reach.

Friend 2: There is no end. This decreases the replay value. Maybe add a timer to make players want to beat their last record time. Add an end goal.

5. Are there any bugs or glitches present in the game?

Friend 1: Sometimes the bullets collided with random things in the air.

Friend 2: None that I could see.

6. Are there any areas of the game's design that could be improved upon?

Friend 1: Fix the bug just mentioned, add the ability to view controls, and make an end goal to increase replay value.

Friend 2: Make the game have an end, add a timer to beat a record, maybe even more guns or even a new level once beating all the spiders. Maybe a boss at the end.

Evaluation and reflection:

1. What key insights did you gain from researching and analysing other games/apps?

From the games that I researched at the start of this project, I found that games that have visible bullets in them make the player enjoy the game more. I also found that games that incorporate multiplayer increase the replay value as it allows you to enjoy the game with friends. The games that I researched also contained really nice physics where the player and bullets had physics applied to them.

2. How have these insights influenced your game/app design?

These insights have influenced the decisions I made for my game as I aimed to structure my game around them. One of my challenges was to create a weapon where visible bullets were fired, a muzzle flash was shown and bullet holes could be seen. Although the bullet holes didn't end up working the games that I researched helped inspire me to incorporate them into my game.

I would have liked to incorporate a multiplayer aspect into my game however due to my limited ability I would have struggled with this challenge and I decided to leave this. However, if I were to add it, I would have liked to make one player control the spiders and the other be the hunter. This would be a challenge for both players as the spiders would have to protect the chests and weapons and the hunter would have to be careful of the spiders and not be killed.

Finally, the other insight I got from the games that I researched was the physics aspect. This was relatively easy to incorporate into my game as there is a physics option in Unity. However, I feel I applied this well, particularly when dropping a weapon. The weapon follows the trajectory the player is moving in if the dropped button is pressed, there is rotation when the weapon is dropped and the gun falls nicely to the floor.

3. What are some areas of your game/app design that you believe could benefit from further research and analysis?

There are a couple of main areas of my project that could have benefited from more research such as:

- An improved menu screen that is easier to navigate
- Make there be an end to a game. This was due to me only researching single-player games.
- Maybe some water that can actually move and slow down the player
- Some way for the enemy to shoot back at the player

4. What did you learn about your target audience through the research and analysis?

From this research and analysis, I learnt that the games I researched had been designed their games around what their users want and enjoy. I attempted to do this in my game by incorporating things such as detailed scenes, guns that fire projectiles, rayguns, and lighting to create a mood.

5. How does this research and analysis help you to improve the overall design of your game/app?

This research, analysis and feedback will help to improve my game in many ways. It has taught me to always look at my target audience and what I need to do to fulfil their needs. The feedback has shown me that my game is not yet fully complete however with a couple of tweaks and the addition of a menu where players can view their controls, the game will have a more full feel to it. Another thing that this research has shown me is that other games are perfect to look at for ideas, concepts, and what other games are doing to fulfil their target audience's needs and how these can be done to your game. Finally, they also have shown me that multiplayer games can greatly improve replay value as friends are able to play with or against each other.