Chosen Archetype: Endless Runner

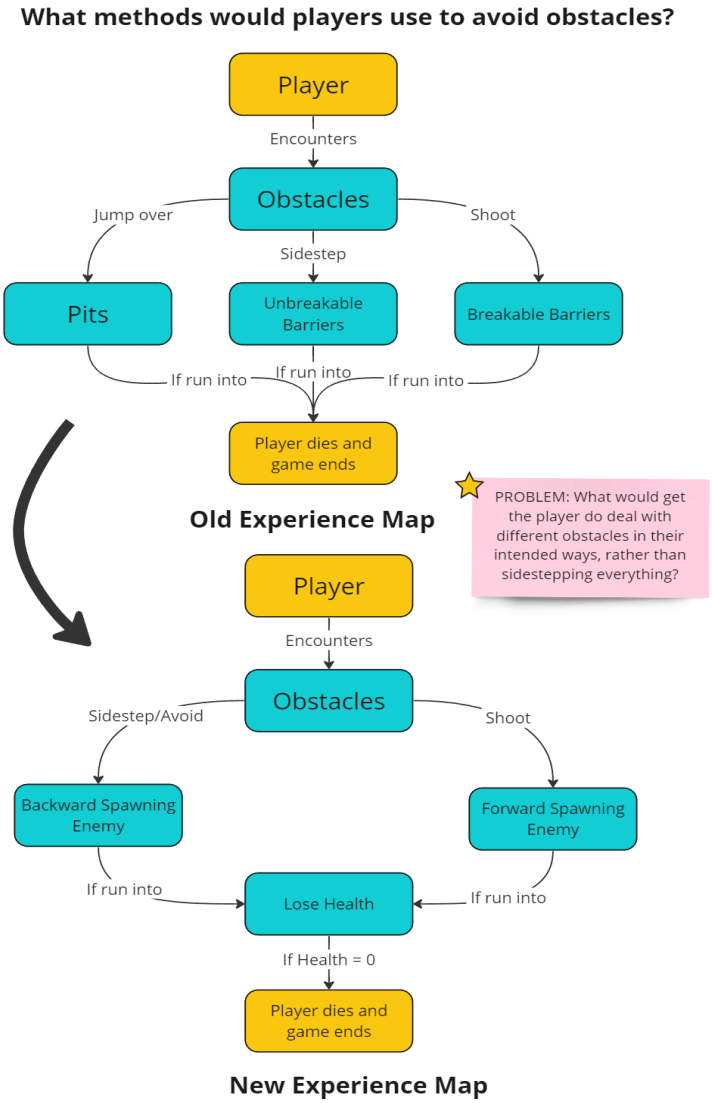
Questions

- **What methods would players use to avoid obstacles? (selected question)**
- What theme would the game be?
- What would the main mechanic be?
- How will players move?
- What perspective would the game be? Side-scroller or top-down?
- How much movement space would players have?
- What would the obstacles consist of?
- What kind of collectibles would we have, if any?
- What would the player's motivation be?
- How would the score be calculated?
- Would there be multiple "types" of environments?
- Would the player cycle through these environments as they went through their run, or would they choose one when starting a run?
- How would the player fail? How many times could they fail before they lose?

Justification

We chose to tackle this question because it's one of the most fundamental parts of an "endless runner" game. Knowing what options the player has and what they have to do when faced with certain obstacles is the core part of an endless-type game. The methods players use to avoid obstacles can significantly impact the gameplay experience. Choosing the question of how players would avoid obstacles in an Endless Runner game as a 'problem to solve' offers several advantages such as gameplay variety, skill mastery, player agency, and some form of strategic decision-making depending on how we tackled it. By addressing the challenge of obstacle avoidance in an Endless Runner game, we aimed to create a more dynamic and engaging experience for players, encouraging them to explore different strategies and enhancing the overall enjoyment of the game.

Player Experience Map

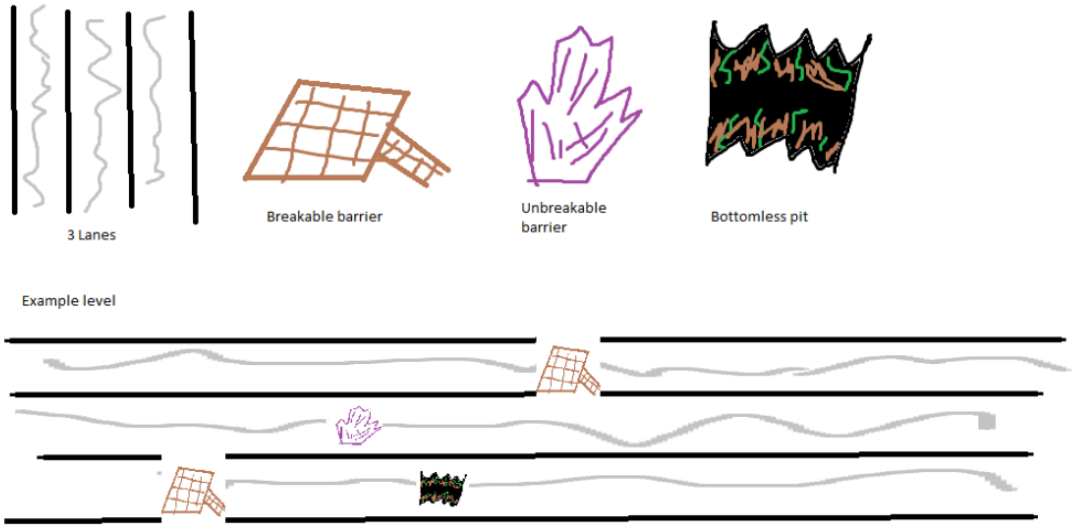


(Figure 1 - Our team's past and present player experience map. Initially, we settled on an endless runner but later changed it to incorporating bullet-hell-style elements where the player avoids and shoots obstacles to survive. However, in both of them, our problem question remained the same which was what would get the player to deal with different obstacles in their intended ways, rather than avoiding everything?)

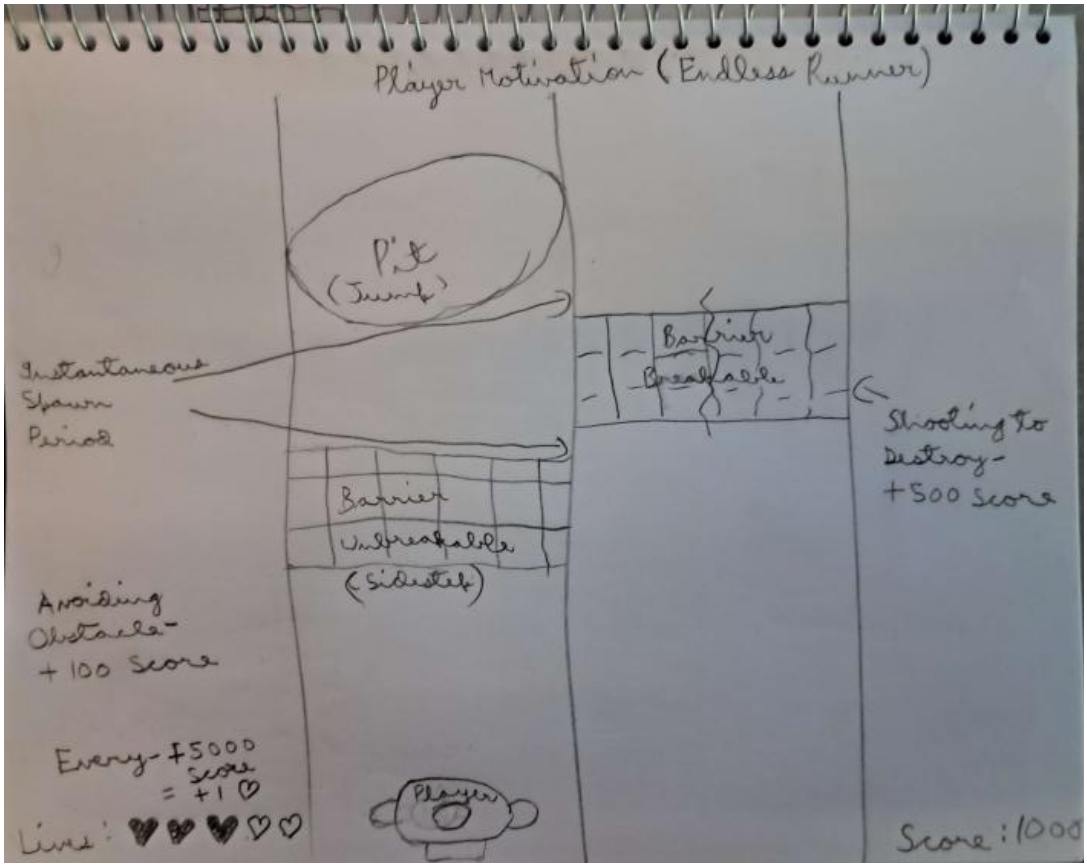
Justification

We changed our player map from its initial concept to fit Rhea's solution sketch of an endless bullet hell. Initially, we settled on an endless runner game (a temple run-styled game) where the player has to avoid obstacles by doing various movement actions, however, we later changed it to make it more bullet hell themed where we now have the player has to dodge bullets for an endless amount of time. The experience map details how players will interact with different enemies as they progress throughout the game. The reason we shifted was that we saw the newer variation as more engaging and provided a better sense of agency to the players while rewarding them with instant feedback.

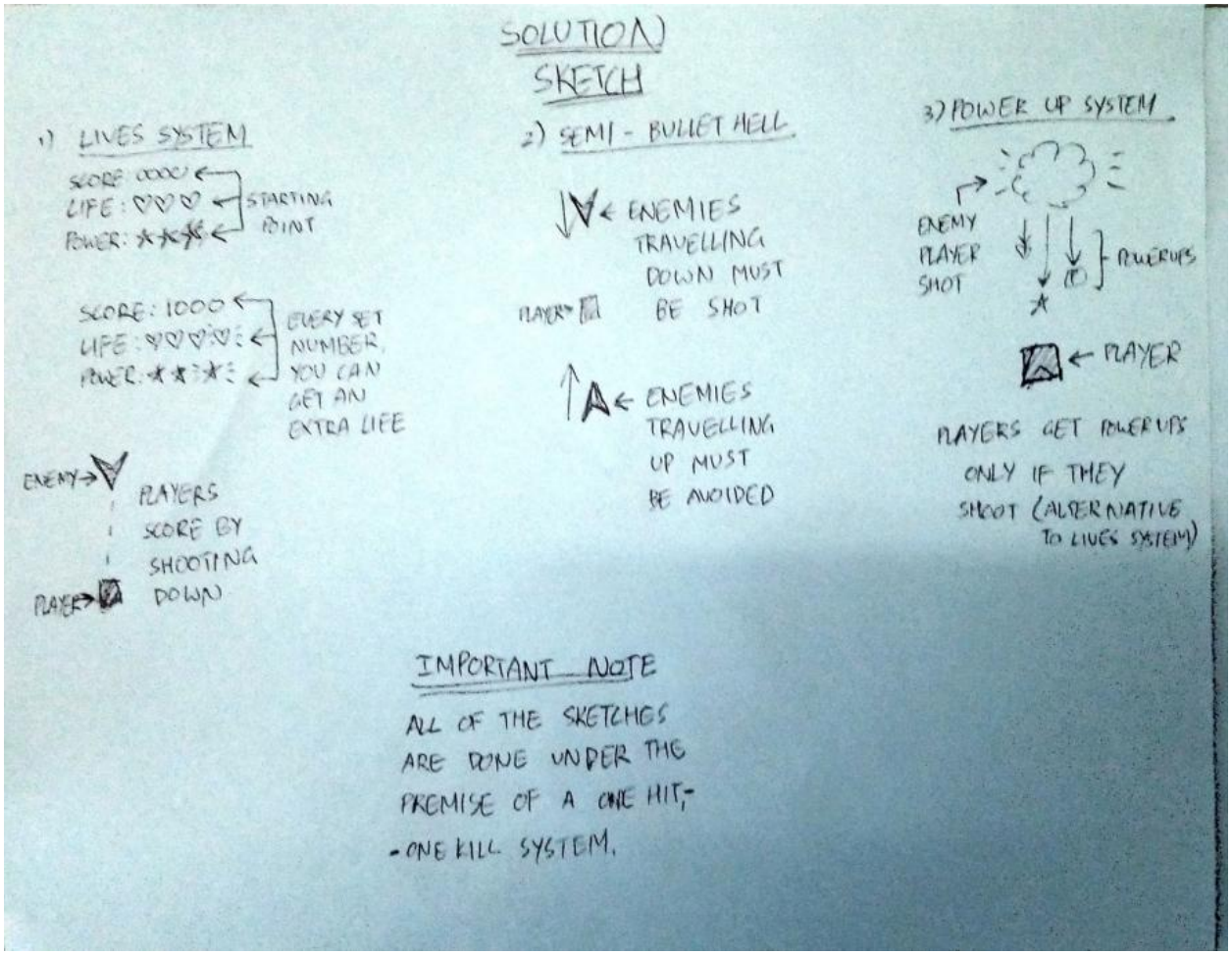
Solution Sketches



(Figure 2- Julian's Solution Sketch)



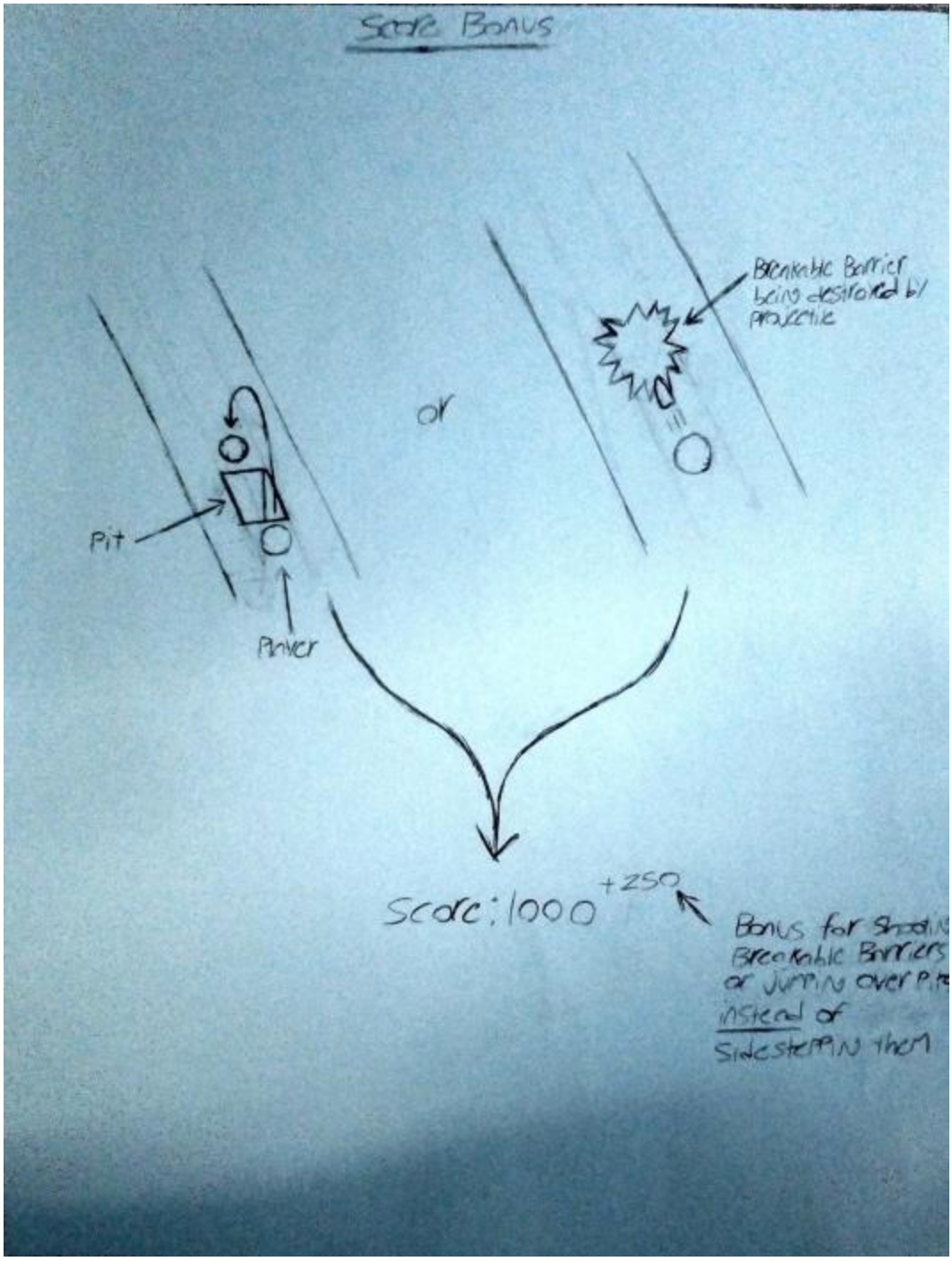
(Figure 3- Adi's Solution Sketch)



(Figure 4- Rhea's Solution Sketch: Selected for the prototype)

Justification

We chose Rhea's solution sketch because the pretense it was based on - an endless runner with bullet-hell elements - was a unique prospect for a game that we had seen surprisingly little of. It also worked as an effective solution to our problem, rewarding players for proactively approaching enemies and dealing with them in their intended ways with a score and extra life that would let them make more mistakes and keep going.



(Figure 5- Shaun's Solution Sketch)

Our prototype assessment criteria

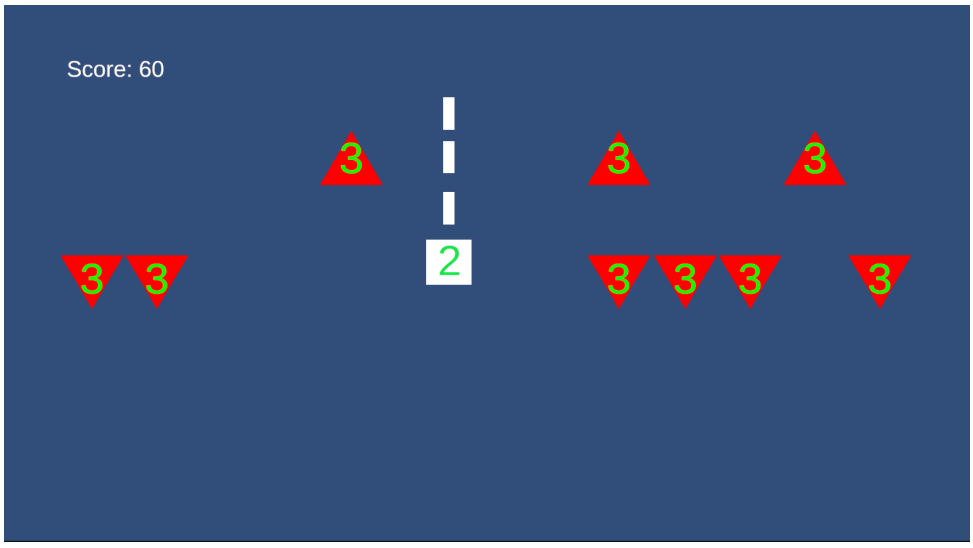
- Does the idea show promise and potential if expanded to a full game?
- Would the idea be too difficult to implement within our scope feasibly?
- Did others respond well to the idea and the prototype?
- How did our final prototype look when compared to our solution sketch?

Knowledge gained

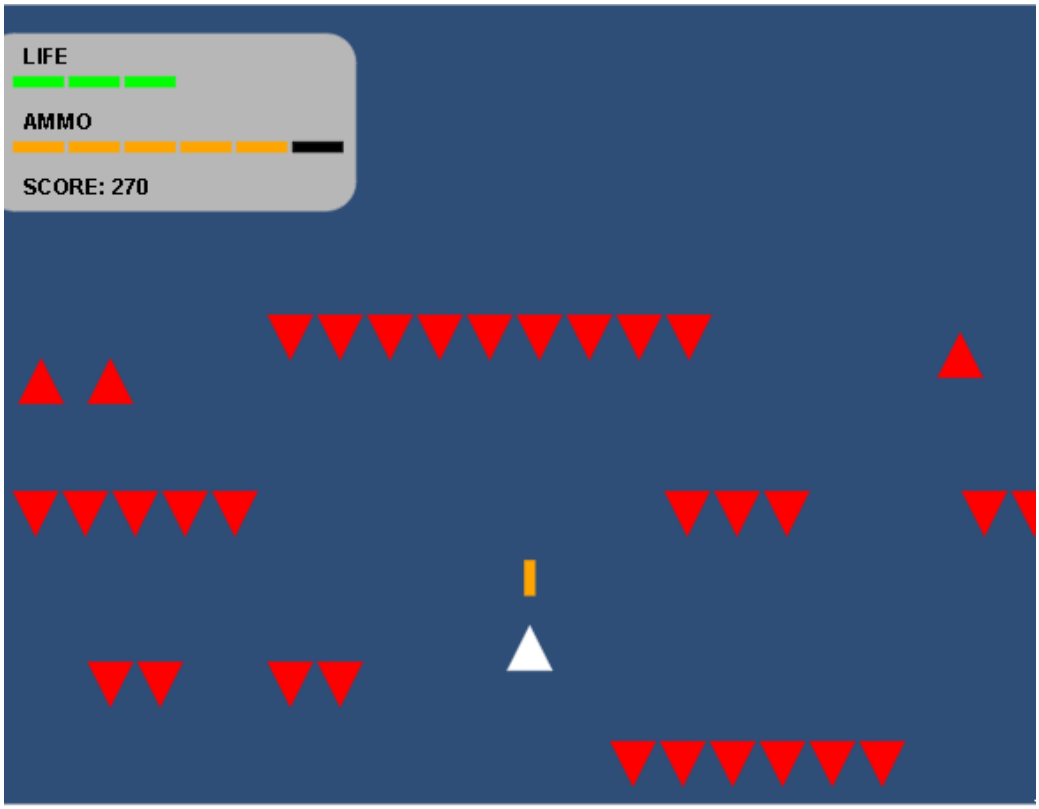
Our team learned that in future sprints, we should pursue less ambitious concepts based on the archetype chosen, at least in our current programming structure. In our current structure, we try not to work on the project simultaneously in order to avoid merge conflicts. If we were to pursue these more technically ambitious designs, we would either need to change this format or be given a larger time span to finish them. We also figure that in the future we need to achieve a better leniency balance for teammates who aren't present at crucial moments of the sprint and are unable to offer input. Because one of our team members wasn't here when we did our solution sketches, we gave him a deadline of 2 PM the next day to submit something before we settled on one without him. Because of this, we were unable to work on the prototype until the deadline passed, wasting a lot of time that could've been spent working on it, and resulting in large amounts being started and finished in a single afternoon.

Feelings after the sprint

We believe that we would implement a version of this solution if we were to work on this type of endless-runner/bullet-hell hybrid game. Having the player regain life and earn score when destroying enough enemies serves as an incentive to shoot at them when needed rather than just avoiding them. Additionally, it could be used to create a gap in the enemies to get through them, when the ones provided by the game itself are either too far away or too narrow. The system could be made more intricate if expanded beyond a prototype such as including ammo that regenerates over time to add more complexity to the moment-to-moment decision-making and disincentivizing players to spam-shoot through waves of enemies without trying to avoid them at all.



(Figure 6- Unity Prototype)



(Figure 7- Mock up of an expanded version of the game concept, featuring an ammo mechanic, more complex enemy patterns, and slightly altered visuals)