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Stranger Danger

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Introduction: Our game is a top down city game, where the player must walk home from school while navigating past common obstacles. Each level of the game focuses on a child's new route home from school, taking an increasingly difficult path as the levels increase. Along the way, there are pickups to encourage the player to walk on the sidewalks and crosswalks as well as common city obstacles such as cars and strangers.

Vision: Our vision is that children will have fun while learning city safety rules and gaining critical thinking skills for making decisions when faced with obstacles.

Target audience: Our target audience is young children. Children that are unfamiliar with road safety rules and live in cities that they will later have to navigate on their own would gain the most from this game.

Game goals and rhetoric: Our main goal is for children to learn common city safety rules while playing our game. As they walk through the city, they are challenged with avoiding cars and strangers while staying focused on their path home, mimicking real life scenarios so that they learn how to act in real life. Our target audience is young children, and we want them to enjoy themselves as they play the game in order to keep their engagement so they continue practicing the safety rules. We used simple but cute graphics for the characters, items, and background that appeal to children as well as animations to catch their attention. We decided against harsh punishments such as barring the character from being able to walk on the road or killing the character after collisions with cars or strangers. Instead, our game includes using positive reinforcement to reward players when they follow safety rules. We encourage players to walk along the sidewalk and crosswalk with exciting animated pickups, with a recorded score increased accordingly, keeping track of their completion of safe actions. When the player walks into the road or collides with a car or a stranger, their character is bounced back and given an alert message, explaining the issue and discouraging them from further unsafe behavior, but still allowing them to continue through the game level with this safety rule in mind. We chose positive reinforcement methods rather than negative reinforcement methods as we want young children to feel excited to learn and play. Beyond the encouragement in the actions of the game, we further reiterated the safety rules through text, connecting player's actions to clear rules. We communicate this through the text alerts described above as well as in text on the ending scene after they have completed all levels in the game as a lasting takeaway lesson from the game.

Use Case Scenario: Young children would be playing the game at their home or school. The environment that the game is played in is calm, both providing an activity for the child's enjoyment as well as giving them the ability to focus on the game. The player would play the game for a few minutes, reaching the ending scene after the final level. Parents could encourage selection of the game, especially as they are preparing their children to walk safely

on their own. We also want children to be drawn to the game, curious about its cute graphics and enjoying playing the game, picking it out for themselves. The ideal outcome is that the child enjoys themselves while gaining safety knowledge and decision making skills.

Development Challenges: We had challenges in the overall design of the game, which we solved through imagining player scenarios and comparing it to our educational goals of the game. We thought through the best way of communicating the ideas of city safety, first conceptualizing it as a platformer game, but then reasoning that this would not be as true to real life if characters could jump over obstacles, and deciding to go with a top down approach. We also worked through figuring out how to separate out the difficulty levels in a way that would be appropriate for children and allow new players to learn the mechanics. We first conceptualized the game as one massive map with a high difficulty, but later decided to split it up. Our game now begins with an area for the players to figure out the main mechanics of movement first before being confronted with obstacles, followed by levels increasing in difficulty. We also had programming challenges. Our main one was navigating through the levels while retaining the mechanics of the game, such as having the pickups work on each level. We solved this issue by implementing organizational strategies such as using a game manager.

Discussion: We accomplished our goals of an overall design that is encouraging to children using positive reinforcement with increases in difficulty of the levels that would allow for players to first learn how to play the game and then learn how to navigate increasingly difficult situations. We also accomplished the mechanics of the game we wanted that mimic real life very well. We also have many ideas for if we were given more time. Firstly, we would have more levels, increasing the difficulty of the map path home each time (complicated road designs), making the paths much longer so the levels are much longer. We would want to increase playing time, making it fun to continue practicing safety rules while increasing the critical thinking challenges for children. We also would add more obstacles on the later levels, first increasing the number of obstacles as the game continues, but also adding other city obstacles such as pickpocketers and construction zones for children to learn about and navigate past.

Sources: We used the video Intro to 2D Character Movement - Godot Beginner Tutorial by Code With Ro for player movement code. We used How to make a Video Game - Godot Beginner Tutorial by Brackeys to implement our stranger and car movement, configure the physics of our tile map layers, and set up our game manager. We created the pause menu using Godot 4 Pause Menu Tutorial by Gwizz and the main menu using Godot Main Menu in 4 Minutes by Master Albert. The code for switching the levels was written using the video tutorial Godot 4: Switching Levels Made Easy by PlugWorld. We got the idea and main code for using positions to determine the movement direction for the stranger as well as displaying alerts and making the character bounce back from cars from ChatGPT. For the city landscape, character, stranger, and car assets, we used the RPG Urban Pack by Kenney. For the apple and trophy assets, we used graphics from Pixel Adventure by Pixel Frog. We got our end scene graphic from freepik. For our text font, we used Pixel Operator 8 by Jayvee Enaguas (HarvettFox96). We made our background music Best Game Console by DJARTMUSIC. We added car horn sound effects using Car horn beep beep two beeps honk honk by AmishRob (Freesound).