COVID GROCERY RUN ⚡

Design Document

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Game Overview

Logline

COVID Grocery Run follows an individual in the midst of the COVID-19 pandemic trying to get their groceries. This person must follow the recommended safety guidelines, including wearing a mask and following appropriate social distancing requirements or risk the consequences.

Genre & Themes

This game falls under the Action/Adventure RPG genre. Players will have real-time control over their character as they navigate the obstacles in a grocery store. Unlike many RPGs, there will be no combat abilities. Instead, players will continuously be on the defensive.

The central themes of *COVID Grocery Run* are science and education. Players who have no previous knowledge of the safety guidelines from Health Canada should have a basic understanding of some of these tips by the end of the game.

Features

Features
Intractable items (sanitation stations, masks)
Multiple levels of increasing difficulty
Challenging maps which need skill and focus to detect patterns and navigate
Scores will be saved locally and players will be able to see the leaderboard*

This feature may be cut if there is not enough implementation time.

Gameplay Example

You need to get bananas but the produce section is currently very crowded. To enter this section, you need to find the non-medical mask because it will not be possible to maintain the appropriate distance from others upon entering this section. Even with the mask, you must avoid others as much as possible while getting your bananas so that you lose minimal health points.

Mockups

Home Screen

The home screen of *COVID Grocery Run*. In addition to starting the game, players will be able to navigate directly to the credits. Time permitting, a leaderboards screen will also be available.

Gameplay

A gameplay mockup built using `Game Maker 2`. The main character (red shirt) will enter by one door, collect the food items and then exit the other door. Players will be required to be continuously alert to avoid other individuals as they move around the store. Masks (not pictured) will offer additional protection and sanitation stations (not pictured) will allow players to recuperate lost health.

Art Style

COVID Grocery Run will use have a retro RPG look by making use of pixel art. These images will be sourced from popular art repositories such as itch.io and OpenGameArt.Org

Why is it fun?

COVID Grocery Run aims to educate while entertaining at the same time. As levels increase in difficulty, players must improve their skills at detecting movement patterns and planning their routes so that they can ensure proper social distancing.

Players will also be forced to use masks and sanitization stations to their advantage as both will be essential to completing the game.

Pillars of Design

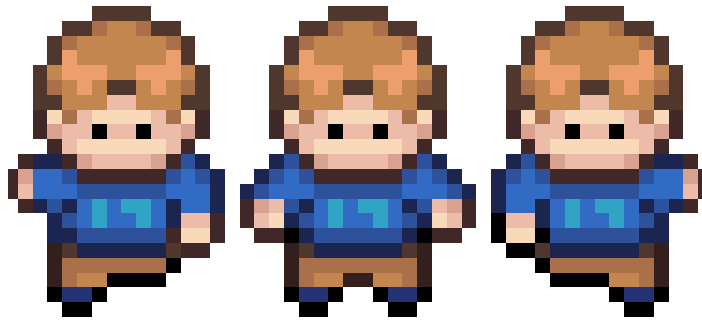| Name	Description
Easy to learn	Players should be able to understand the objective and mechanics of the game with little to no text.
Promotes public health guidelines	Guidelines from Public Health Canada should be used when determining what actions should and should not receive consequences.
Challenging	The game should require attention and skill to complete.
Aesthetically pleasing	The home screen and grocery store, the transitions, and the characters should be aesthetically pleasing.

Characters

There will only be one distinct character for this game, the individual on a mission to find all of their groceries. There will be numerous other people walking throughout the store; however, these people will be "strangers" and must simply be avoided. Due to the limitations of the selected character pack and time constraints, only two sprite sets will be used (selected at random for each "stranger") to populate the entire grocery store.

The main character sprite set obtained from itch.io. In addition to this three-frame set, three others (one for each direction) will be used for animating the movement. Two other character sprite sets will be used to animate the "strangers" in the grocery store.
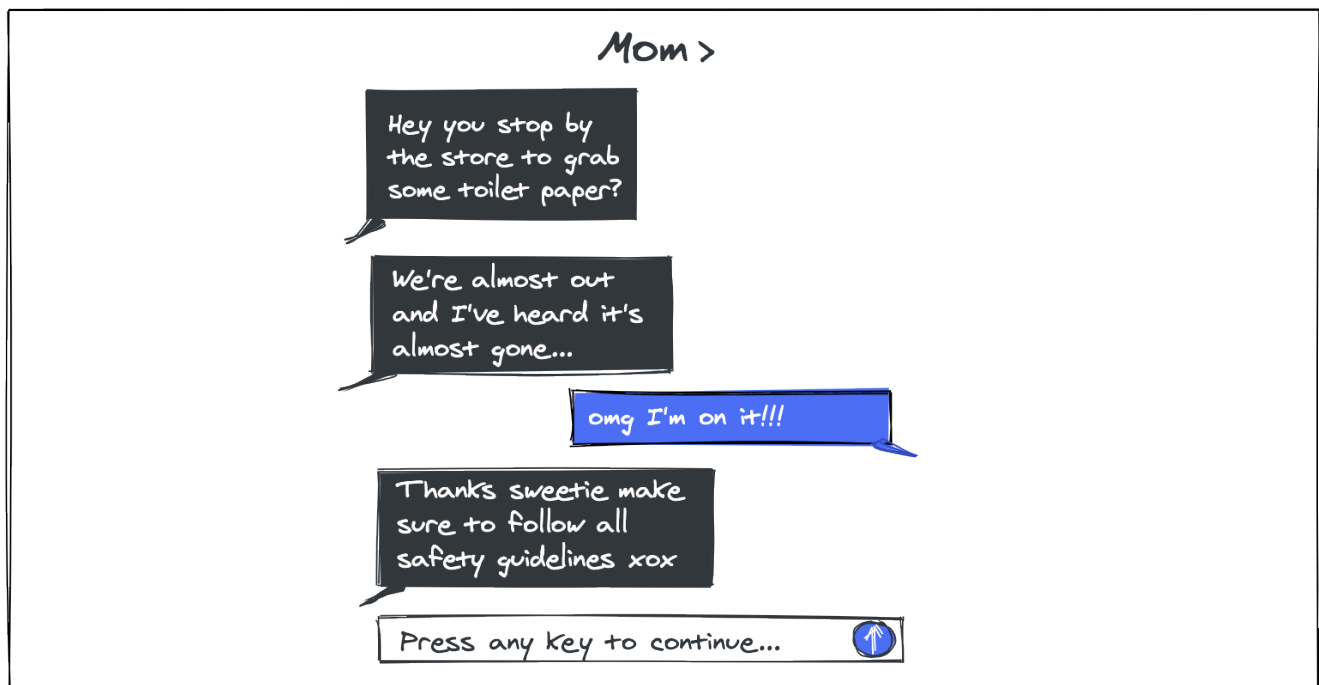
Story & Setting

The premise of the story is that a young man has been asked by his mom to pick items from the grocery store during the COVID-19 pandemic. A small introduction sequence will be shown to set background information. The gameplay will take place within a grocery store full of other people.

The intro sequence mockup up using excalidraw.com.

Core Mechanics

The core mechanic of the game will movement. Players will use WASD keys (or the arrow keys) to navigate throughout the grocery store to collect their groceries while carefully avoiding other individuals. Players will lose health (the exact amount will be optimized during testing) every time they come near another individual and lose instantly if they come in contact with another person. Intractable items will allow players to reduce the damage caused by other individuals and to recover some of their lost health.

Game Objectives

The objective of the game will simply be to make it from one side of the store to the exit while collecting *all* food items from the store. The game will have multiple levels, each requiring the player to collect a new set of items and exit safely. If a player loses on one level, they will simply be able to restart that level.

Movement of Strangers

The algorithm that determines the movement of others in the grocery store (the strangers) is the key to making this game challenging and fun. The placement and

movement of strangers will need to be carefully coordinated to ensure levels are challenging but properly progress in difficulty. To make things simple, strangers will move in a predefined pattern with varying levels of breaks. For example, in a grid of 32 x 32 blocks, one stranger may be programmed to move from position (4, 5) to (4, 9), wait for one second, and then move back to (4, 5) before breaking again for another second and then finally repeating. Additionally, a stranger may be programmed to move between more than two different positions.


Strangers will be preprogrammed to follow defined routes at a specific speed and a specific interval. In the above example, this person will talk to the "X" point before stopping and travelling to their next location. If there are no more locations in their route, they will return to their initial position and start again.

Interactive Elements

Masks

In some levels, players will be able to pick and wear a mask to reduce the magnitude of inflicted damage by some factor (to be determined during testing). These masks will sometimes be out of the way; however, they may still important to complete the level, thus forcing players to retrieve the mask.
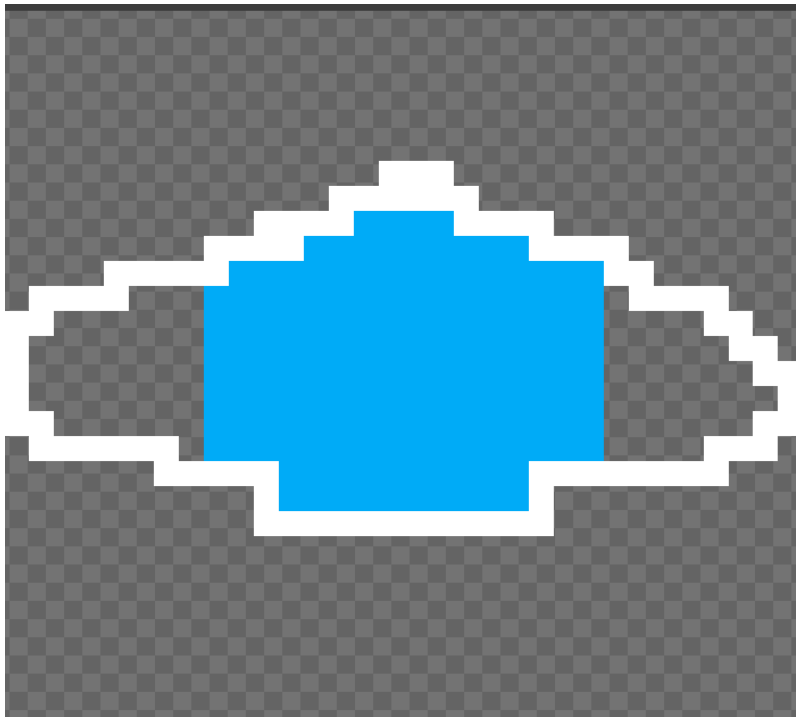
> A sprite of the mask that will be located within some levels of the game. A player will be able to pick this up to reduce the damage inflicted by others.

Sanitization Stations

Sanitization stations will be located at key locations to help players heal throughout levels. These stations may be placed in the middle of stores to give players respite if the level is difficult.
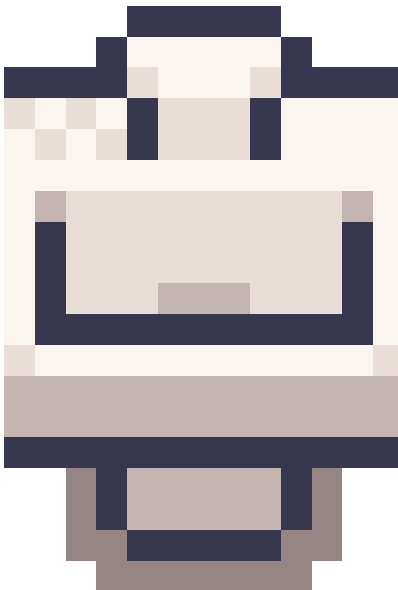
> A hand washing station that will double as a sanitization station. These will be placed at key locations to provide respite for players on difficult levels.

Audio Style

The audio style will follow the art style and attempt to use "8-bit" sounds as much as possible. The background music of the gameplay will be very generic. For example, Sounds For The Supermarket was a jingle created specifically for grocery stores in 1975 and will likely be used for the Alpha version. Sound will also be used to indicate to the player how much health is remaining. Using builtin `Game Maker 2` audio tools, the pitch of the background music increase as players lose health points.

Development Tools

`Game Maker 2` will be used for game development. Playing to my strengths, `HTML` and `CSS` will be used to create items such as buttons, modals, text bubbles, etc. This document itself was created using web technologies! Additionally, `FL Studio`, a professional Digital Audio Workstation, will be used for audio editing.

How will the game be received?

This game attempts to focus on the safety aspects of COVID-19 and avoid wording that makes it seem that players become "injected" when they lose. Instead, players lose when they don't follow safety guidelines. COVID-19 is still a very real problem, especially in certain countries/regions, and many people are still suffering loss because of this virus. Due to this focus on safety and the challenging aspects of the game, the game should receive a positive reception.

Conclusion

COVID Grocery Run will be an action-packed game that'll make you wish you never had to get groceries again! While playing, players will simultaneously learn about important guidelines directly from Public Health Canada. Players will be challenged to observe movement patterns and to plan their routes carefully so that they can ensure proper social distancing. They will also need to learn how to use masks & sanitization stations to their advantage. These unique game mechanics coupled with a classically designed Action/Adventure RPG will make this fun for all ages!