Nathan V (100886412) Programmer

Rish V (100827691) Programmer

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Nathan’s Roles/Responsibilities:

Programmer & worked on the singleton and observer parts of the assignment (Implemented the Sound manager, UI manager, collectables and health bar)

Rish’s Roles/Responsibilities:

Programmer & worked on command design pattern and factory pattern of the assignment (Implemented the restart button and collectable drop in function)

Percentage of Contribution:

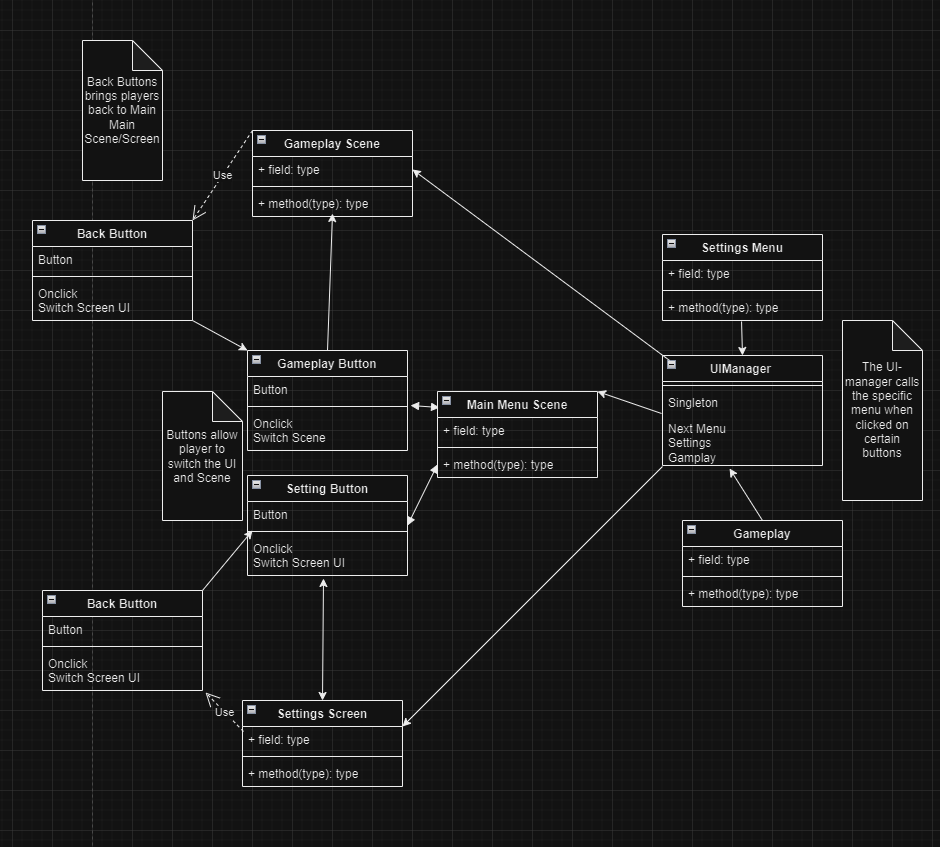
Nathan V. = 50%

Rish V. = 50%

Interactive media scenario information:

The media scenario that we have developed for this assignment is to show off the possibilities of movement-based ideas within Unity. So, we chosen to make a parkour movement-based platformer using each of the deliverables we are being asked to implement. But from the player’s perspective they are asked to learn about the various ways of movement that can be created within a game engine such as Unity. Some of ways the player can learn about the movement from the deliverables is the collectables to see how UI interacts with all the other components. Also, the Sound manager to be able to list to the difference of certain actions such as jumping or walking.

Singleton Implementation/Explanation

UI Manager

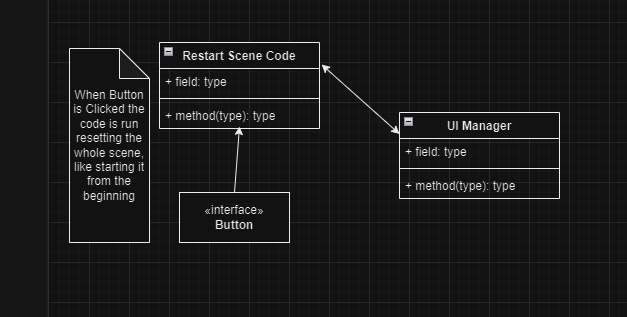
The way the UI manager was implemented was to have a canvas object where are the menu objects are and have then disabled so that when the player starts the game it starts on the main menu. Though the code for the Main menu takes the canvas menus and holds in a list so that when certain buttons are pressed the scripts runs and outputs the correct menu. This helps the experience by making it so the legend on the side bar in unity isn’t clogged or overwhelming as well simplifies the process for the code to figure out what menu needs to be loading and to remember if the player wants to go back to the previous screen.

A black screen with white text

Description automatically generatedSound Manager

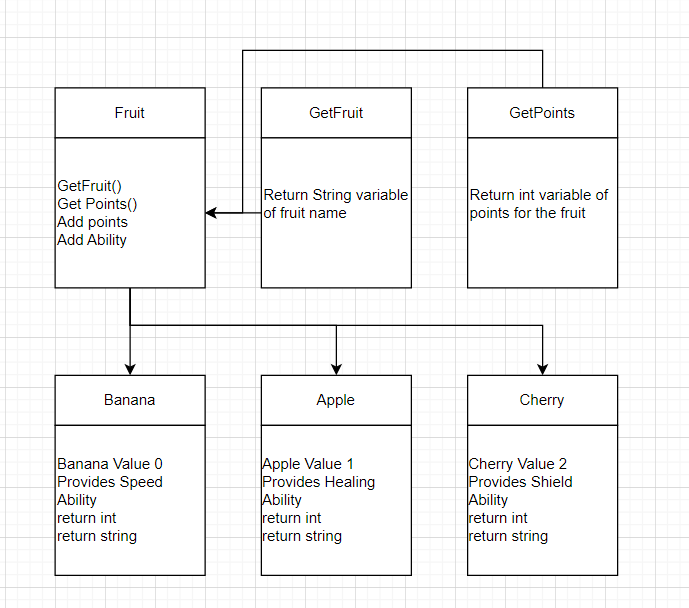
The way the sound manager was implemented has the script with Enum-list that has the specific sounds listed in order, where you need to place them as such when attaching them to the sound manger empty game object. So, the way it works is the specific sound is played when the player performs a certain action or presses a certain key (i.e. space is space it plays a jump sound effect) This helps the player during the experience by giving a sound effect so that juices up the experience and lets the player know what action was performed.

Command Design Pattern Implementation/Explanation

Restart Button

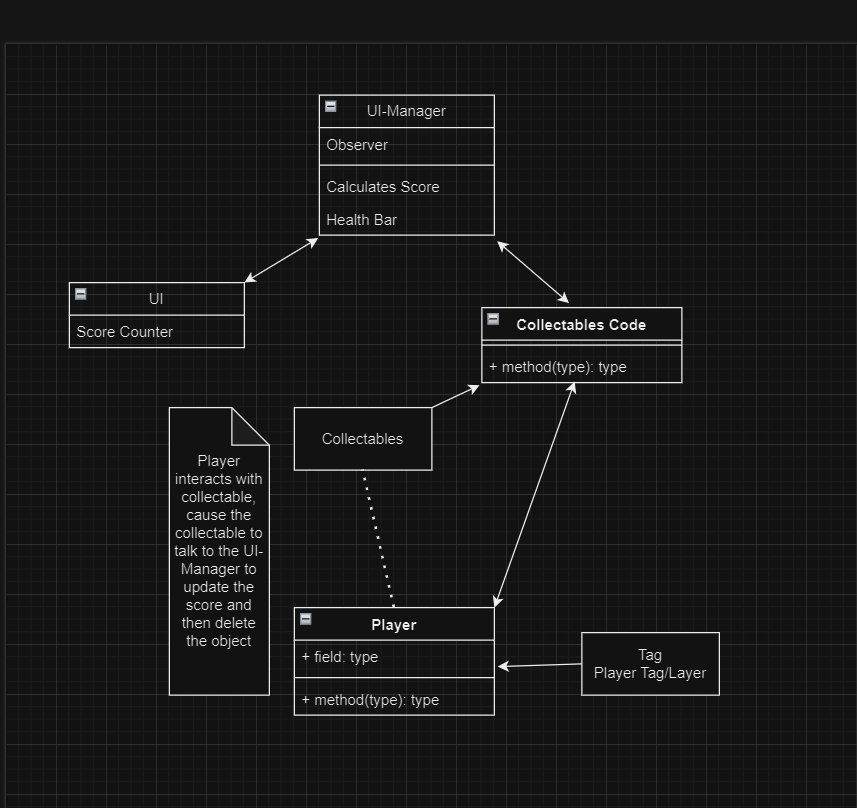
The way the button was implemented was again using the UI manager first and placing a button for the user to press to reset the scene from the beginning. But moreover, a simple script is attached to empty game object so that when the player clicks the button the script is read and then in turn restarts the scene. The whole experience benefits from this implementation because say if the player were to get stuck or frustrated from a section this button would allow the player to restart and try again from the beginning.

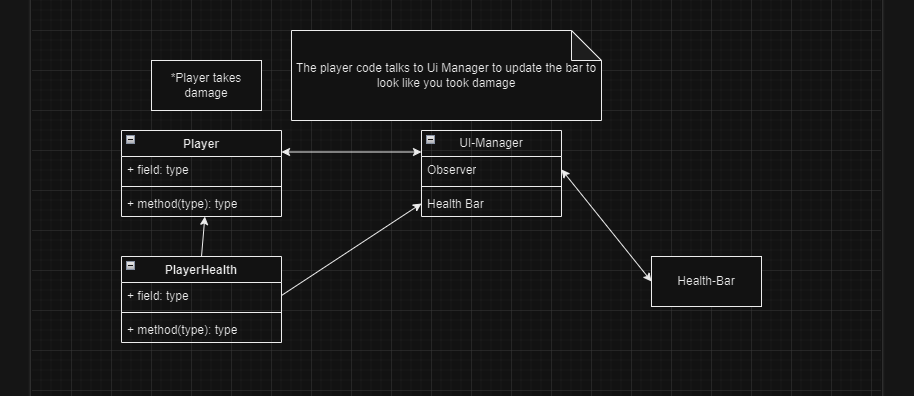
Factory Pattern Implementation/Explanation

The Factory Command pattern is used with the fruits system. Each Fruit provides a specific boost and points for the game, depending on which fruit is taken by the player. For example, If the player selects a banana, they get a 3 point bonus and more speed.

Observer Implementation/Explanation

Collectables

The way the collectables were implemented was by having a canvas with new text part that when the game ran would load with the score text and collectables in the game have a script attached to the game object that when collected by the player would add to the score UI text. The reason was added and how it benefits the whole experience a reason for players to jump around to find things to collect to make the players explore around the map and test their video game movement skills.

Health Bar

The health bar was implemented by again UI canvas object to show the health bar model and scripts attached to both the player and Manager. The player script lets us choose the amount of health the player has, while the manager script takes that number and then presents in the health bar. This helps the experience, by showing players they need to be carful when exploring as they could be enemies or obstacles that could damage the player and possibly kill them.

References and Help:

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Sound Effect from <a href="https://pixabay.com/sound-effects/?utm\_source=link-attribution&utm\_medium=referral&utm\_campaign=music&utm\_content=6136">Pixabay</a>