Project 6: Grappling Game - Abraham Scott & Isaac Scott

Status Summary:

Team: Grappling Game, Abraham Scott and Isaac Scott

Work Done:

We have completed the basic and advanced movement for the player, as well as the camera movement, interactability with platforms, and death/reset conditions. This has effectively set the groundwork for finishing the grappling hook mechanic, as well as the player UI that will be monitoring what moves the player makes.

Abraham Scott: basic player movement and camera, platforms, basic inputs, and death/reset conditions

Isaac Scott: advanced movement – dodging, sliding, double jumping, wall running

Changes or Issues:

We have not made any changes from the initial design yet. However, we have run into some issues implementing the grappling hook, as it ended up being a bit more complicated than we expected. We are still planning on making a grappling hook, but we may limit the types of grappling hooks from three (Impulse, Swing, and Straight) to fewer depending on the effort required to create the base behavior.

Patterns:

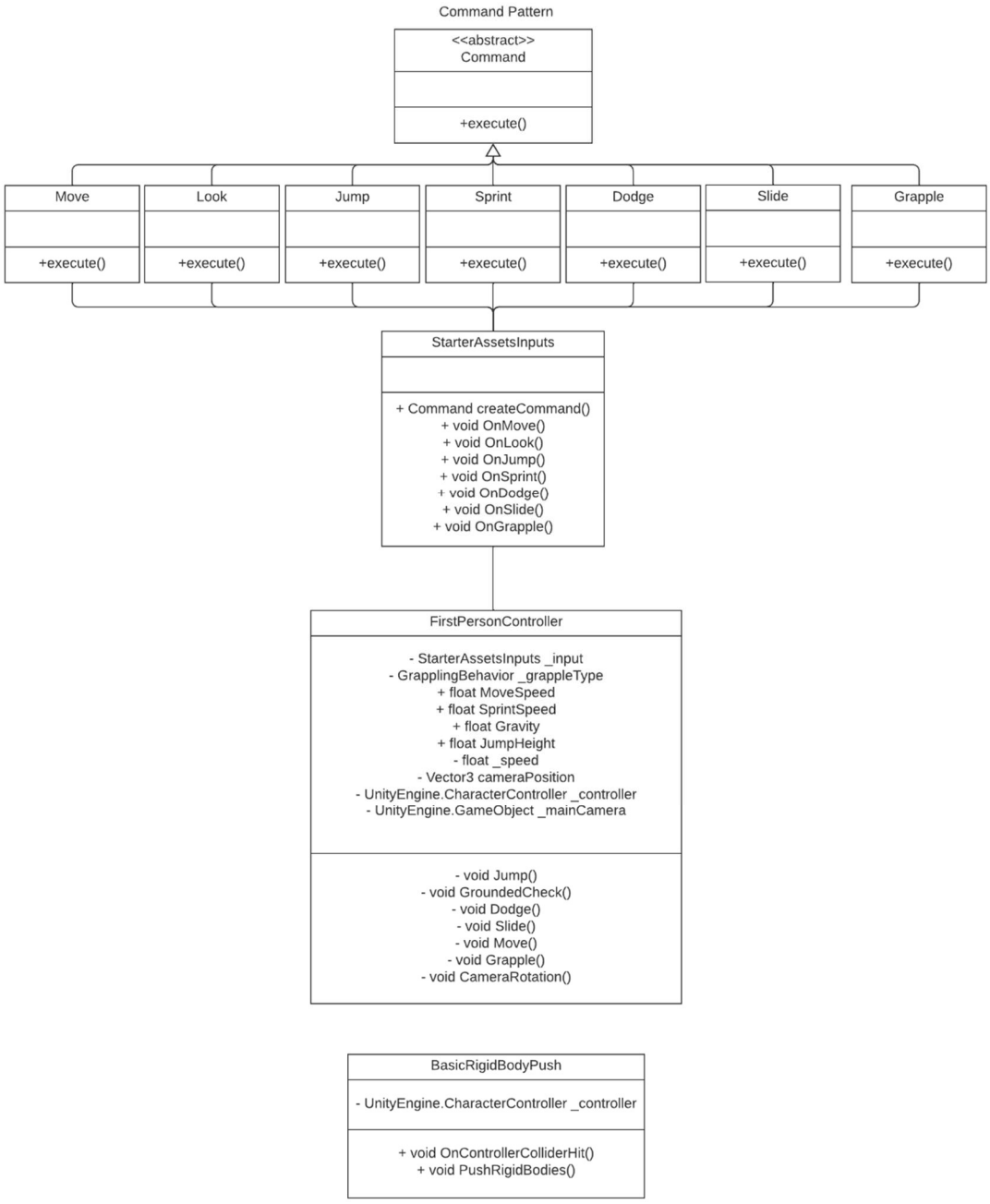
We have completed the Command pattern, and have laid the groundwork for the Strategy pattern. The Command pattern has helped with the design of taking in input from the user immensely. The Strategy pattern, when complete, will allow for seamless gameplay of different kinds of grappling hooks.

Class Diagram:

(on next page)

Grappling Game Class Diagram

Abraham Scott & Isaac Scott | November 16, 2022



In summary, we have finished the FirstPersonController class, the StarterAssetsInputs class, the FirstPersonController class, and the BasicRigidBodyPush class.

We have also finished the Command pattern. The Command pattern is implemented by the abstract class Command, its inherited concrete Commands, and the client StartAssetsInputs.

Plan for Next Iteration:

The Singleton, Observer, and Strategy patterns need to be completed. This entails the creation of the GameManager. UIDisplay, and GrapplingBehavior (and subclasses) classes. These patterns are used for the UI, for controlling which level the player is on, and for runtime switching of grappling hook behaviors. Beyond the work for the code portion of the assignment, we also must create one or more playable levels for the player to enjoy.

Our plan for the final iteration is to finish all of the promised classes and patterns, as well as playable levels. We plan to have everything we promised done by 12/7, except for the different grappling hook behaviors, depending on how difficult it is to implement the base behavior.