**Team Waterfall: HW2 – Report**

**Team Name**: Team Waterfall

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Operation 1:

Highscore Deletion Undo/Redo:

This operation allows the user to delete an entry on the high score list and then allows you to undo the deletion and then also has a redo button that allows the user to redo the deletion if they chose.

Operation 2:

Settings Modification Undo/Redo:

This operation allows the user to undo and redo any changes made within the settings menu.

Identification:

1. Client

The client is the Unity game. It utilizes the command pattern to manage settings and highscores. It's responsible for creating instances of modal windows and interacting with them as needed.

1. Invoker

The invoker is the History class. It is responsible for managing the command history, executing commands, and handling undo and redo operations. The Undo and Redo methods are examples of how the invoker interacts with concrete commands.

1. Receiver

* The receiver for settings-related commands is the SettingsManager class. It contains methods SetName, SetVolume, SetUpShortcut, SetDownShortcut, SetShieldShortcut, and SaveSettings that directly modify settings based on the commands received.
* The receiver for highscore-related commands is the HighscoresManager class. It contains methods RemoveHighscore and AddHighscore that directly modify highscore data based on the commands received.

1. Concrete

* SetNameCommand: Concrete command for setting the player's name. It contains the logic for executing and undoing the action of setting the name.
* SetVolumeCommand: Concrete command for setting the volume level. It contains the logic for executing and undoing the action of setting the volume.
* SetShortcutCommand: Concrete command for setting keyboard shortcuts. It contains the logic for executing and undoing the action of setting shortcuts.
* SetSettingsCommand: Concrete command for setting all settings at once. It contains the logic for executing and undoing the action of setting multiple settings.
* DeleteHighscoreCommand: Concrete command for deleting a highscore entry. It contains the logic for executing and undoing the action of deleting a highscore.

Code Segments:

All code relating to this assignment can be found in these files –

* History.cs
* Commands.cs
* SettingsModalWindow.cs
* HighscoresModalWindow.cs

A screen shot of a computer program

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A screen shot of a computer program

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A computer screen shot of a program

Description automatically generatedA computer screen with white and green text

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Design Level Class Diagram:

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Video Link:

<https://youtu.be/8xesiXJF10A>