**Slot Machine**

**Unity version used: 2021.3.12f1.**

**System setup:**

Unity Hierarchy setup:

GameManager – Script attached is GameManager.cs Contains initiation functions. The functions to initialize the credit is InitializeCredits();

RNG – Attached script is ReelNumberGenerator.cs. This contains all the variable data for symbols and the functions in order to generate random rows for the reels.

**MainScreen – Parent of the gameplay canvas.**

GameButtons – Child of MainScreen gameobject. It consists of gameobject attached to it. The child gameobjects are GameBet, InfoButton, and SpinButton.

GameBet (Child of GameButtons):

Bet – Contains the TotalBet (just the text saying “Total Bet”) and TotalBetText where the total bet of the player will be seen.

Bet\_Button\_Up – Attached Script is Bet\_Button\_Up.cs – used to increase the total bet of the player.

Bet\_Button\_Down – Attached Script is Bet\_Button\_Down.cs – used to decrease the total bet of the player.

InfoButton – Contains the information button where the player can see the payline informatin.

SpinButton- Attaches script is Spin\_Button.cs – This is used to trigger a play by triggering the Reel Spin.

**Game Direction –** Attached script is ReelGameDirection.cs – This is where the flow of the game is triggered. It has references to ReelNumberGenerator.cs and GameManagerCS. The start logic is located here.

Reels – The parent object of the 20 line reels that is divided into Reel1, Reel2 and Reel3 which contains 5 child reels each.

PlayerCredits – The parent object of Player\_Credits\_Text (the defined “Player Credits” text) and Player\_Credits\_Show contains the total available credits of the player.

GameWinnings – Parent object of the TotalWin object. Total win consists of Total\_Win (the defined text that says “Win”and Total\_Win\_Text where the amount of winnings of the player is shown.

Lines – This is where the payline win indicators are located (not yet implemented).

Information – Player’s guide.

**Data Sources:**

All the editable data sources for reels are in the ReelNumberGenerator.cs are below:

* **Symbols per reel.**
* **Spin duration**
* **Delay Between Reels.**
* **Paylines.**

**GameManager.cs**

* **The default PlayerBet**
* **The default GameCredits.**

**Scalability of the System:**

My game is scalable to any platform. This can be launched in WebGL and all mobile platforms   
of iOS and Android. This can be adapted easily to the Web with minor modifications.

**Flexibility of The System:**

The game is flexible. This can be run on various low-end devices without any problems of lagging or crashing.

**MVC Usage:**

MVC is utilized in ReelNumberGenerator.cs where the ReelData from an separate ReelData class so that the symbol and winnings can have any data.

**Future Improvements:**

My future improvements for the project is to continue what’s not been implemented yet especially the game logic is still buggy as of now. All the appropriate graphics should be implemented.