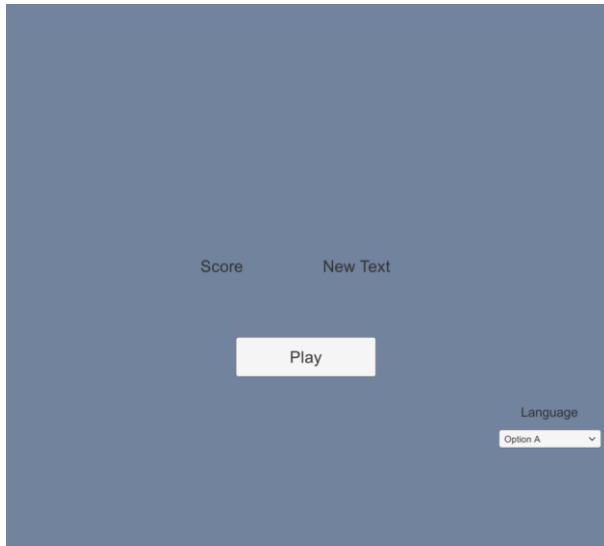


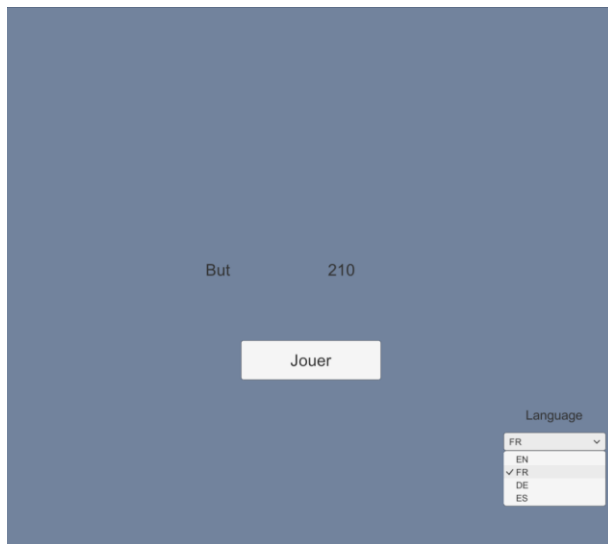
# C# Final Project Document

## Game and data system description

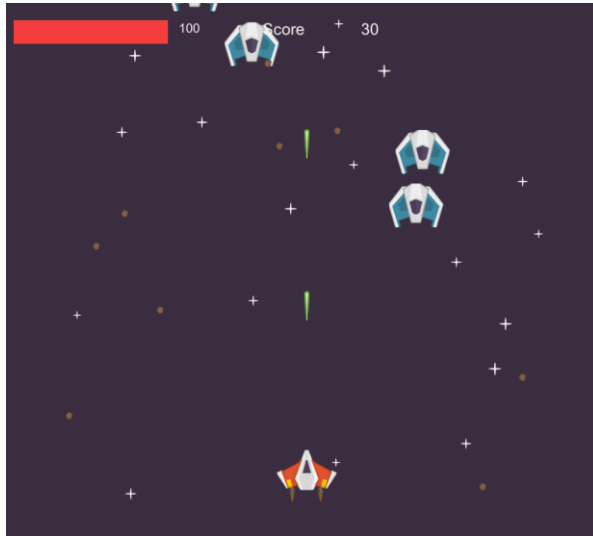
1. Play the game and start the main menu.



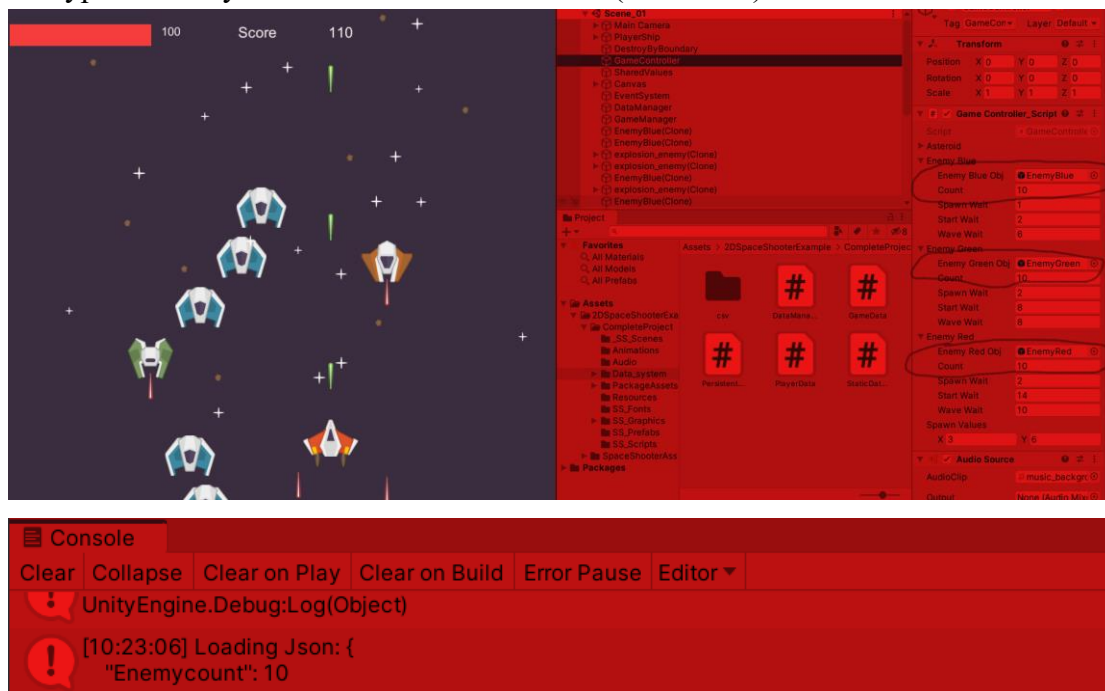
2. You can change the text of “score” and play button using the dropdown. This is achieved by csv file.



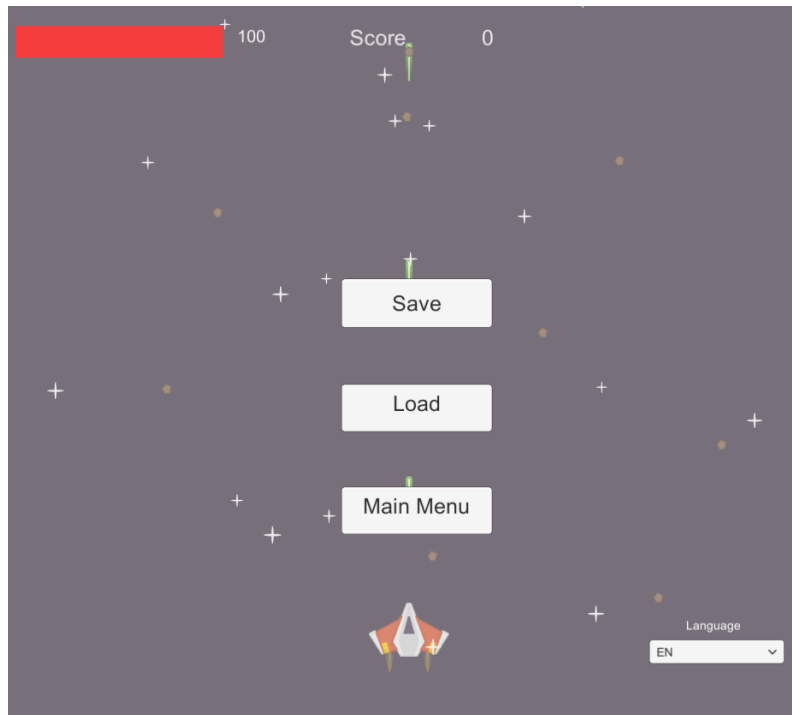
3. Press play button to play the game. The game is produced using unity assert.  
At the top of the screen, scores, health points and health bar are shown. These two data is player data and can be saved and loaded from json file.



4. The game data is the enemy count. When enemies show up, the number of each type of enemy will loaded from Game Data(static data).



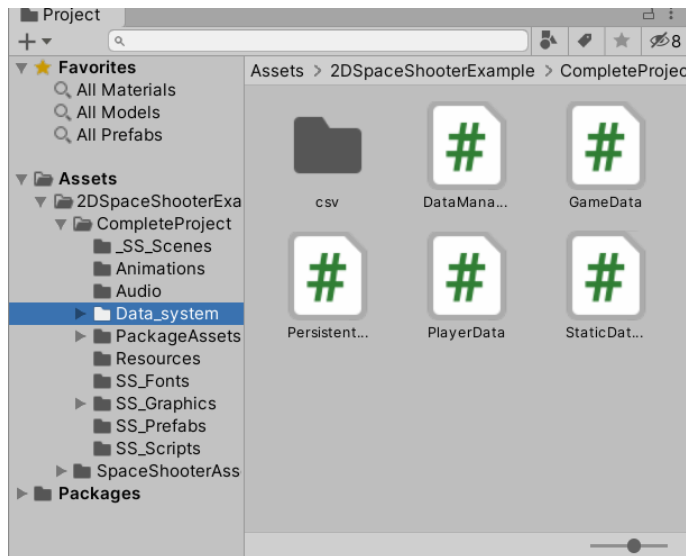
5. When players press Esc, the game pauses and the setting menu shows up.
- The save button is to save the health and score data to player data (json file).
- The load button is to load the health and score data from player data (json file).
- The main menu is to load the main menu scene.
- The language dropdown is to change the language of all the text in the menu. (csv file)



# Data System Introduction

## 1. Game Data (static data)

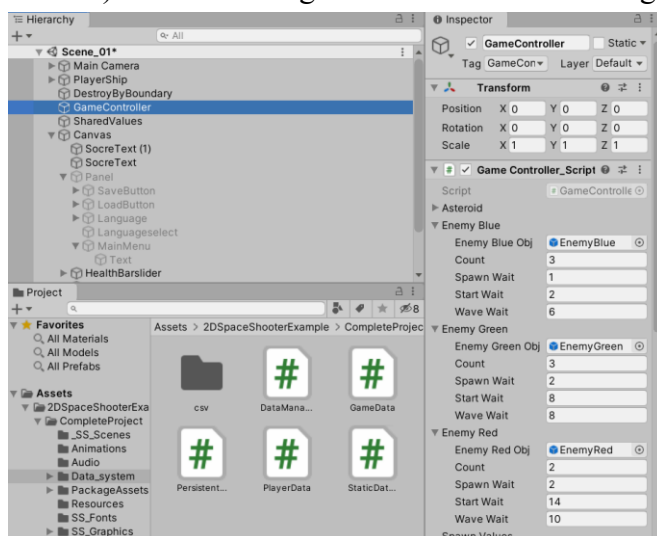
The game data is simple which only contains the enemy count.



StaticDataManager script use the Game data to store and load the level. If there is no game data, StaticDataManager script will create a json file containing the game data. If there is a game data json file, StaticDataManager script will load the game data from the json file.

GameData_GameData.json	2020/6/19 0:09	Adobe After Eff...	1 KB
PlayerData_Player1.json	2020/6/18 23:41	Adobe After Eff...	1 KB

When the game data loaded, the enemy count of each type of enemy (blue green and red) will also change in GameController using GameController\_Script.



## 2. Player Data (persistent data)

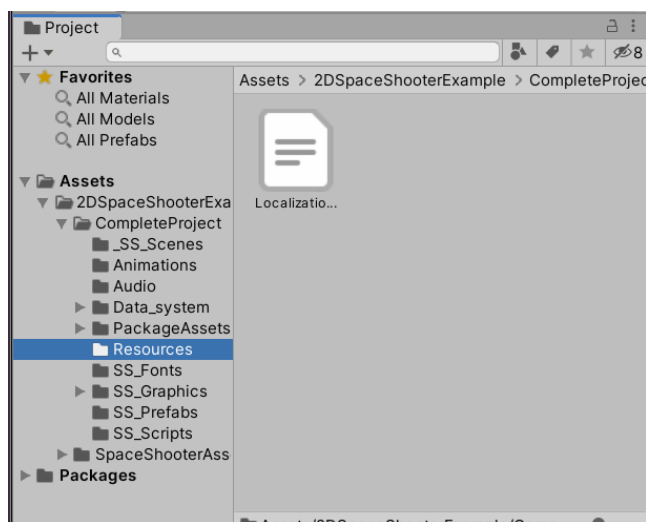
The player data contains the player health, score, speed, and fire rate. PersistentManager script save and load the player data.

When players press the save button in pause menu, the player data will be stored as a json file. And when players press the load button in pause menu, the player data will be loaded from the json file and the data on the screen will also change. These functions are achieved by GameManager script.

The score data in the main menu will also change using MainMenuManager script.

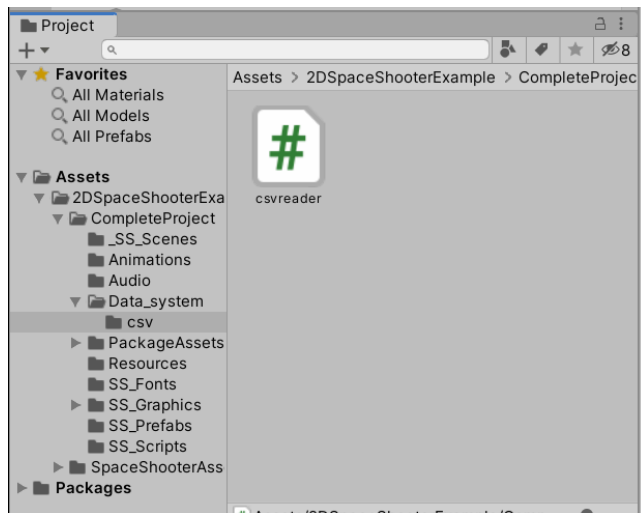
## 3. Language Data (localization data)

The csv file stores in the Resources folder which contains the text of different languages.



A	B	C	D	E
Text_ID	EN	FR	DE	ES
BUTTON_SAVE_PLAYER	Save	sauver	speichern	Salvar
BUTTON_LOAD_PLAYER	Load	Charge	Belastung	Carga
BUTTON_MAIN_MENU	Main Menu	Menu principal	Hauptmenü	Menú principal
TEXT_SCORE	Score	But	Ergebnis	Puntuación
BUTTON_PLAY	Play	Jouer	abspielen	Jugar

The csv file is read using csvreader script.



Players can use the dropdown to change the language and the text in the pause menu will also change.