SIMON GAME

Introduction:

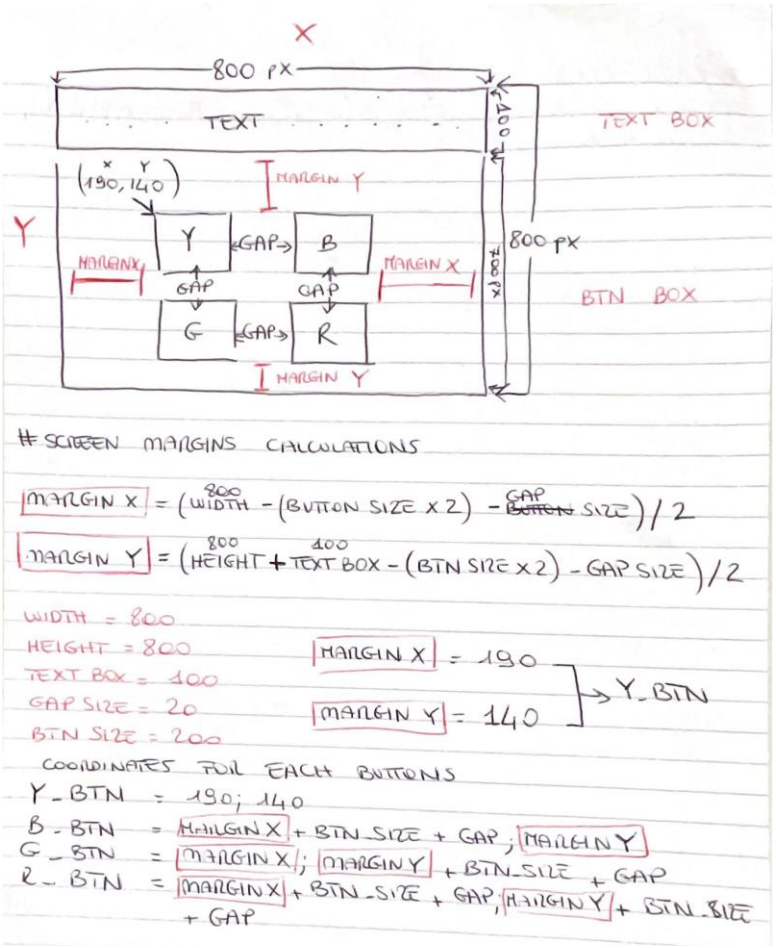
The project consists in a running program which implements a simple player game. The game chosen has been coded in Python using PyGame and is based on the existing game 'Simon Says' but it is a two-player game version.

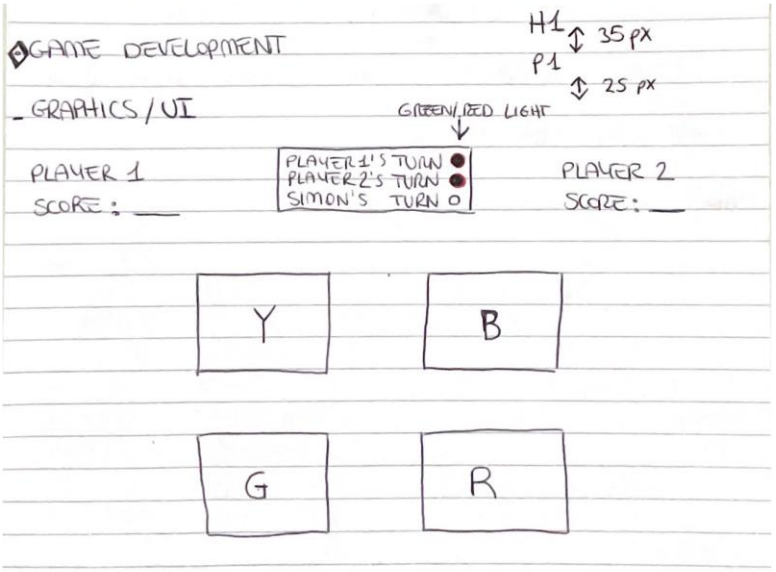
Rules:

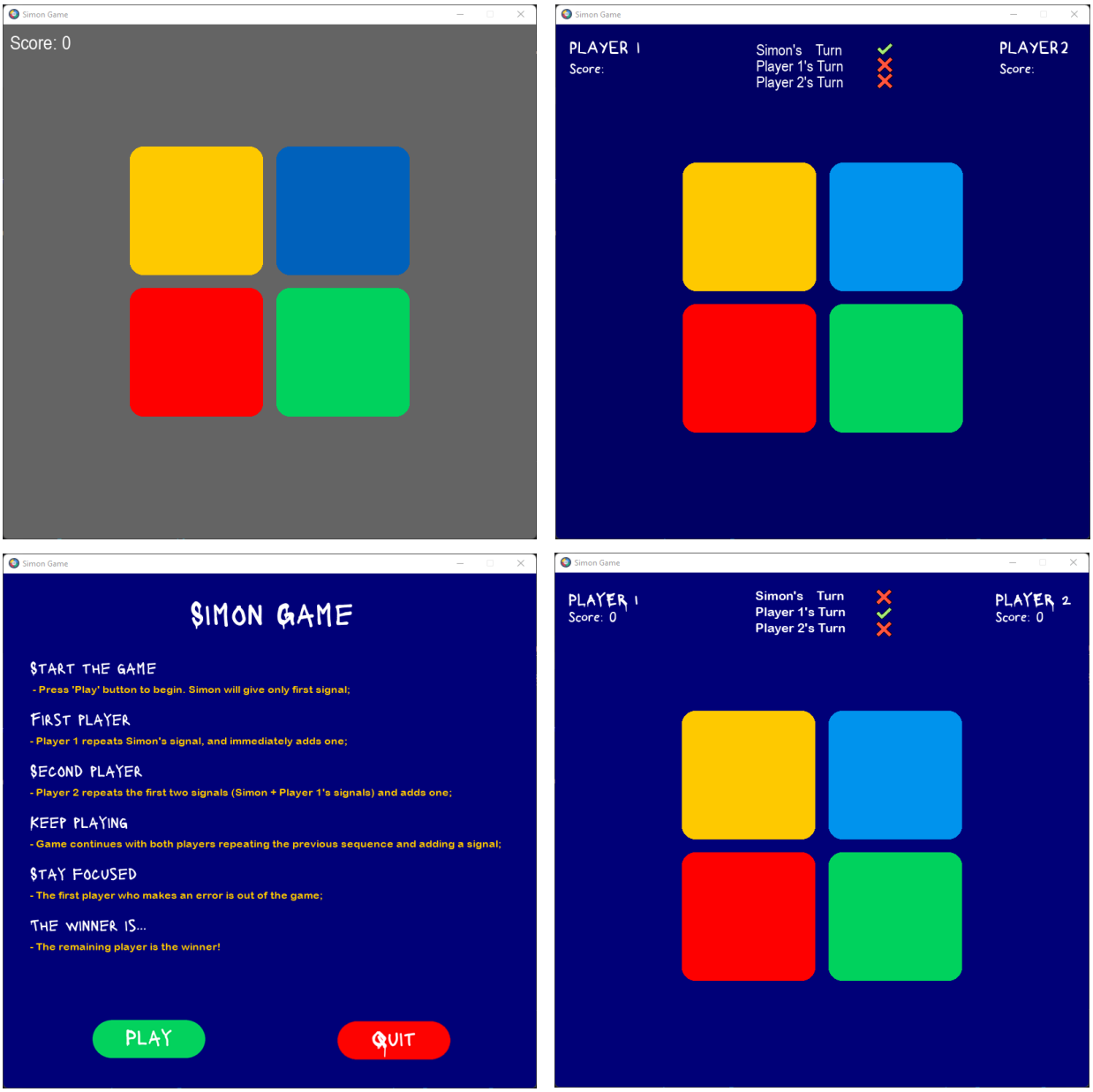
Simon's game is a memory game and its rules are quite simple. Instructions on how to play have been also implemented in the main menu before the game takes place.

Stage 1 – UI Development:

After choosing which game to develop, the first stage is UI Development which is the process of conceiving and designing the user interface in order to provide the smoothest user experience possible. Attached below are the images of hand-drawn sketches and the evolution of the main game interface.



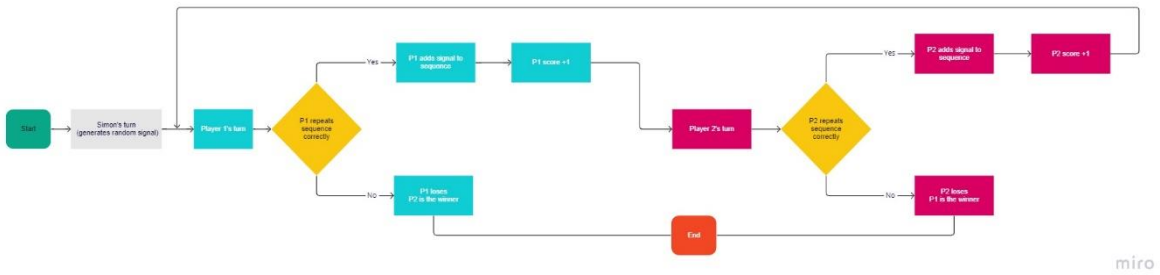




Stage 2 – Game Logic:

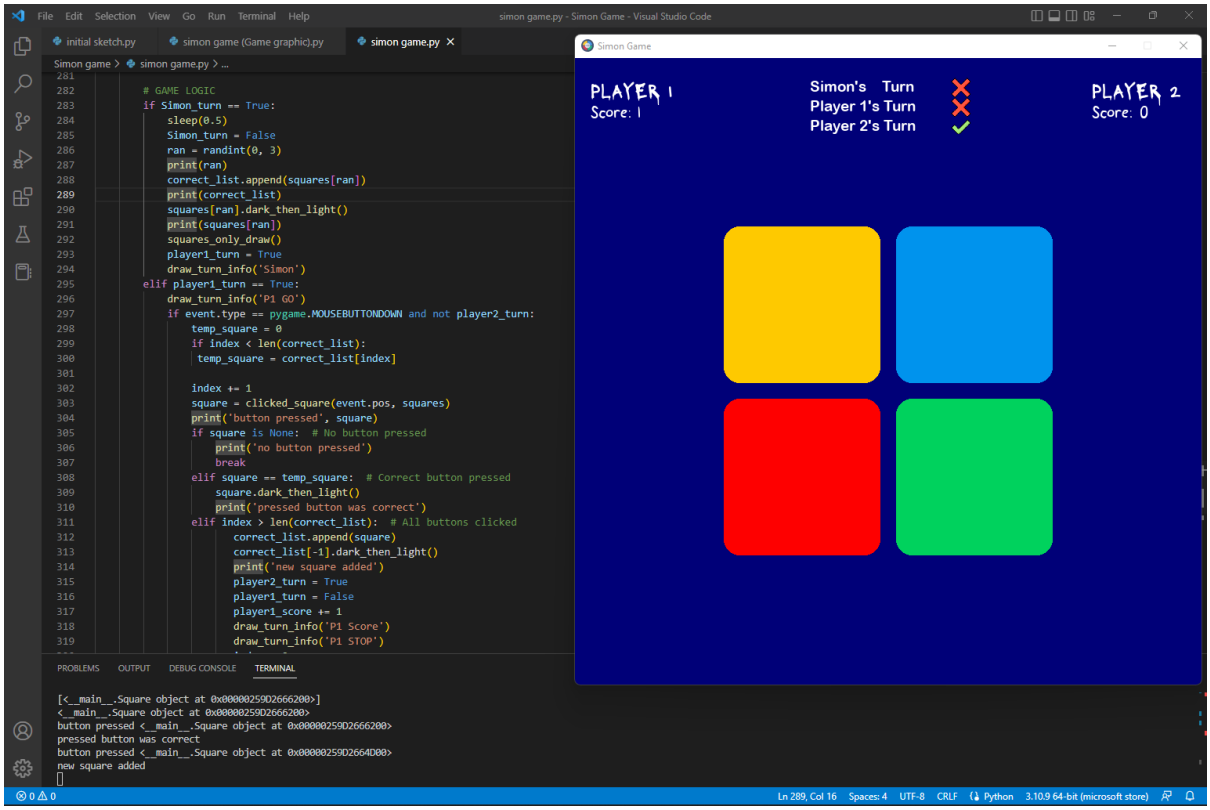
Chart Flow:

The image below represents the chart flow of the game logic, based on the game's rules for two players. https://miro.com/app/board/uXjVP0O2TWI=/



Testing Approach:

The testing approach has been a fundamental phase while implementing the logic of the game into the program. In order to achieve a clean code and debug issues encountered, strings and operational outputs have been printed to the screen. By doing that, debugging errors has been carried out smoothly. In the final code, all the print functions have been left in there to show how the testing approach has been carried out and to underline also the challenges faced.



Git Repository:

https://github.com/filippopresti/Two-player-game-project---Simon-Game

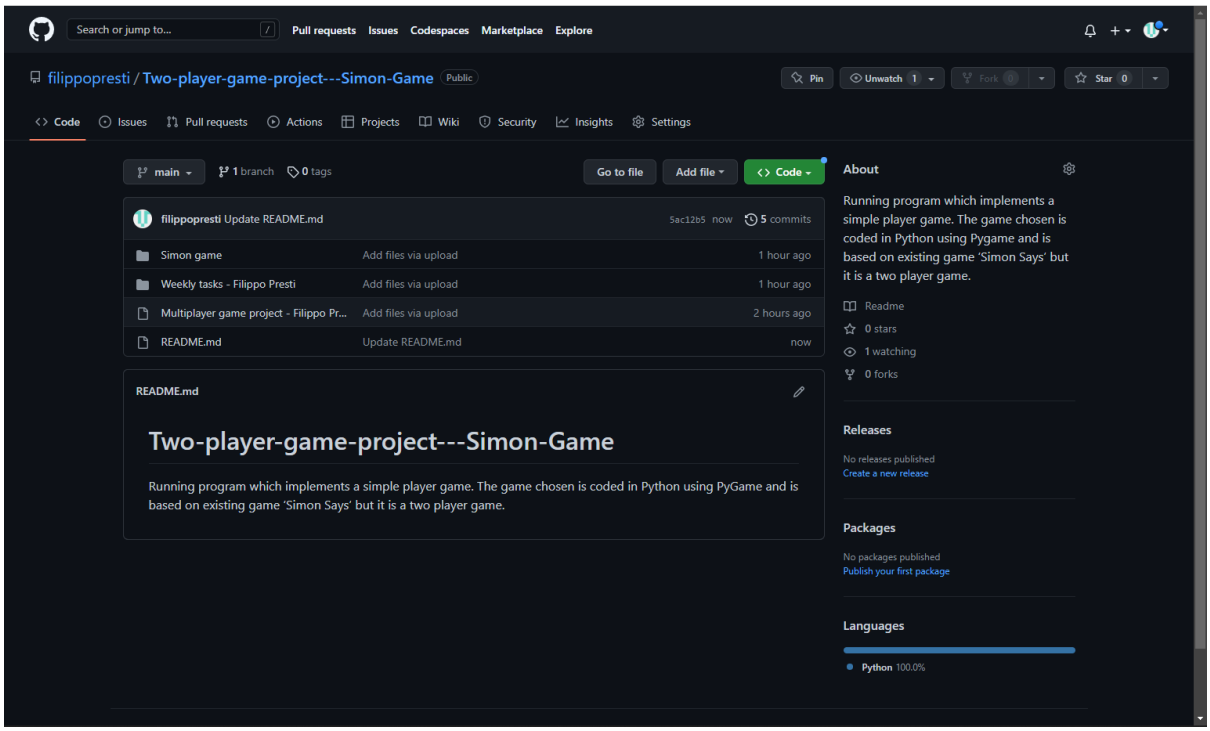
Above is the link where the final project has been uploaded. Inside 'Simon game' folder, there are four python files and two folders containing respectively the fonts and images used for the two-player game project.

'initial sketch.py' is the first file created and it contains raw code about the creation of the four colourful squares and an initial idea on how to apply the darker shade whenever Simon or the players interact with them.

'Simon game (Game Graphic).py' is the second file created and written in python and it contains the final version of the user interface before the game logic code had been implemented.

'Simon game.py' is the final completed version of the two-player program. To be able to run it, PyGame module needs to be installed.

Weekly tasks assigned throughout the Coding One - Introduction to Creative Computing and Coding Practice course have been uploaded to the same repository as the two-player game program.



Future implementation:

Although the game runs smoothly and is quite simple, additional improvements could be implemented. It would be ideal to limit the available time the players have when they repeat the previous sequence and by doing so the game would be more challenging. A future useful feature would be the option to pause the game when needed by pressing a key on the keyboard. It would also be great to carry out an implementation to add more players or simply play against Simon.