

# Fruit Ninja

## Description

The project starts from the “FruitNinja” which is the main and launches the program leading to the startup of the “WelcomeWindow” and this scene is prepared then the program checks the file if it exists or not. If it exists then the game can be either loaded or a new game can be started up. If the game is loaded then the current score, highest score, difficulty, game objects are loaded to start up the game with this state. If a new game was chosen then the highest score is loaded and the current score is set to be 0, the difficulty is set to be 1 and remaining lives be 3.

In the same stage of the “WelcomeWindow” the reset button is used to clear the data inside the XML file, so that if a user starts a new game afterwards everything is set to its initial default value where the current and the highest score are zeros and difficulty level is 1 then the next stage will start in “GamePlayWindow” class. In this stage, Fruits will be generated randomly and will be thrown with random speed and random time difference between them.

Finally, the last stage “ScoreWindow” shows up when the user loses all his lives. In this stage, the current score and the highest score are shown. On slicing the watermelon, the stage is navigated back to the first stage “WelcomeWindow”.

Applying the MVC and the SOLID principles and making separate UI from program logic the “GameEngine” class is responsible for this role, and some extra classes such as “Soundtrack” class, “GuiController”, and “Images” are created to decrease the repetition of code and to make the code more readable.

### **\*\*\*\*Note\*\*\*\*:**

- **The game state is saved if the user pressed the save button, and is also automatically saved after the user beats the highest score so that everytime an object is sliced the game state is saved.**
- **If the user loses after reaching the highest score then the current score is reset to 0 and the game objects are reset keeping the highest score, so that the user can't save before losing and load the game from the state at which he saved while the highest score has already been updated with a higher one than in the pre-mentioned state.**