SilverCoders

DIGITAL LITERACY IMPROVEMENT THROUGH EFFECTIVE LEARNING EXPERCIENCES FOR ADULTS

CHALLENGE #24

SNAKE

CODING TRAINING PROGRAMME

FOR +55 ADULTS

SILVER CODERS

ERASMUS+ No. *2020-1-SE01-KA227-ADU-092582*

Co-funded by the European Union

STRUCTURE OF THE CHALLENGE

DESCRIPTION

This game is a little bit more difficult than the preceeding ones, so be attentive. You were provided with a setup that is meant to work as the basis for this snake game. We can move the snake but nothing else works. The game is meant to be used primarily in mobile devices with a touch screen.

GENERAL GOAL

In this challenge you are going to create a snake-type game. We also explore new mechanisms in Gdevelop.

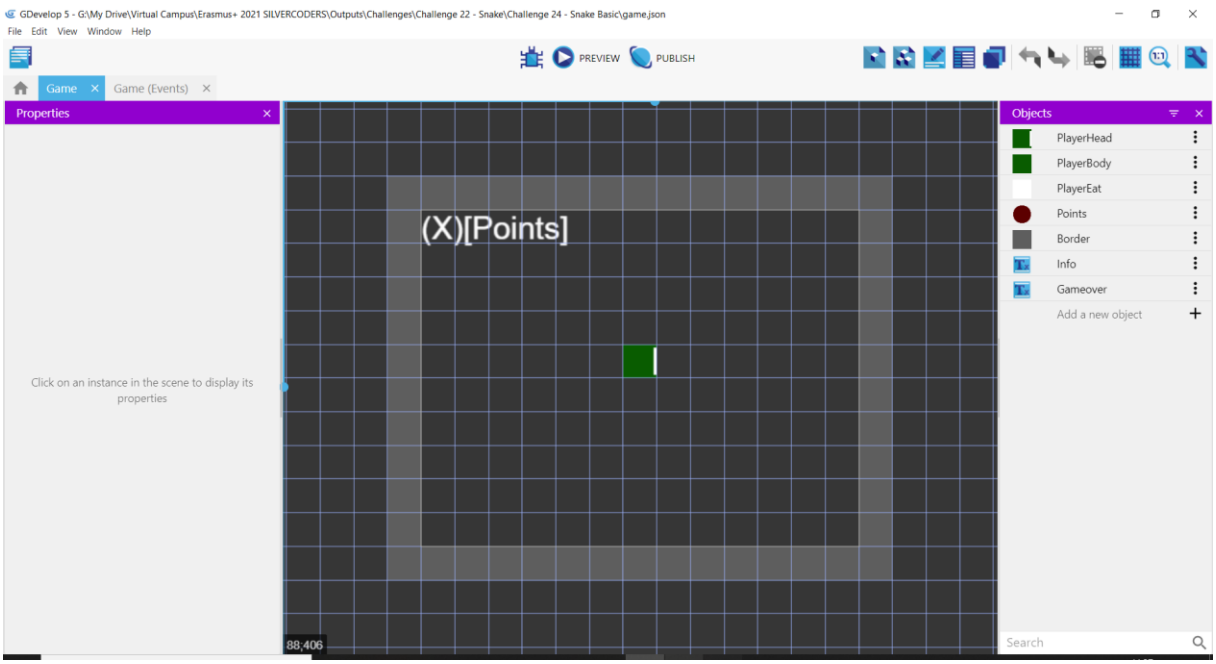
LEARNING OBJECTIVES

In the end of this challenge, you will be able ...:

- To have experience with a visual programming suite and be able to code standard small piece of software with it.
- Know what statements and command lines are and what they mean for a compiler.
- To be able to write instructions using correct syntax and with minimal errors.
- Know what operators are, what they do and which symbols stand for which operators.
- To be able to understand the assignment of values to variables and how to change them.
- To know all the basic arithmetic operations and how to use them.
- Recognize and know how to use all the data structures related to numbers.
- To know the structures linked to the use of text, such as strings and characters.
- To be able to use If statements correctly to execute code according to a certain defined fixed condition.
- To know how to develop for mobile devices

INSTRUCTIONS

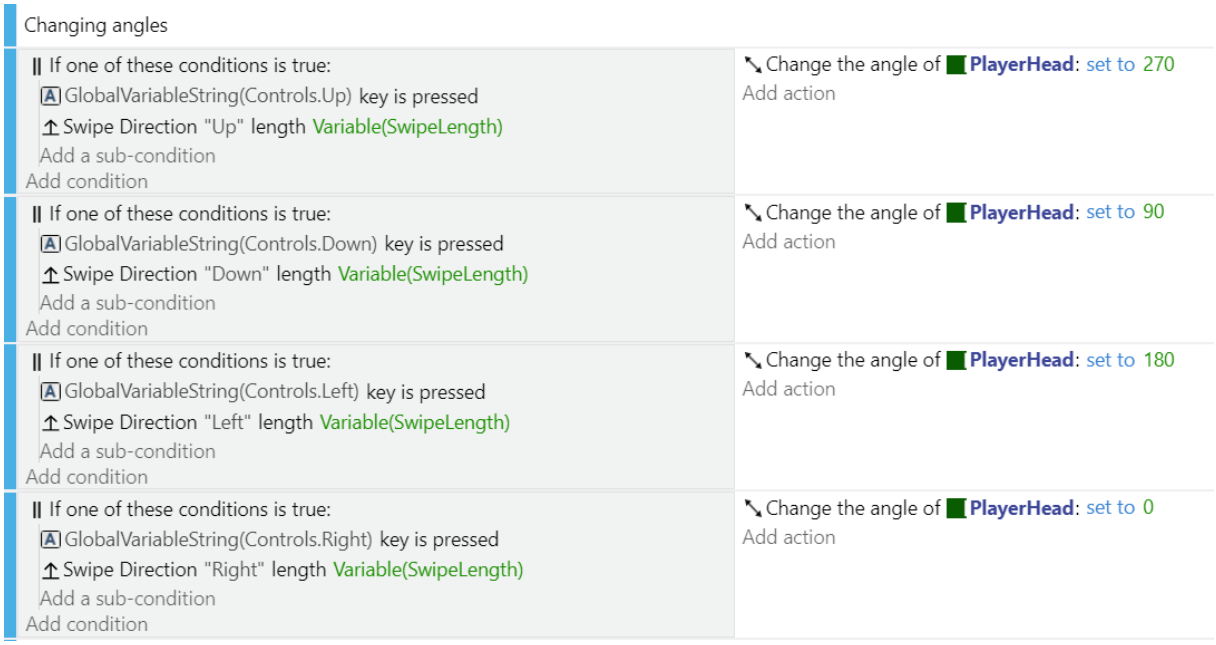
This is your initial setup. There are already some events to make the snake appear and the object that will be eaten. But you should carefully look at the object properties and behaviours. Note that only the Border and PlayerHead are at the scene. Snake movement is with keys A,W,S,D or the Swipe mechanism in Touch screens.



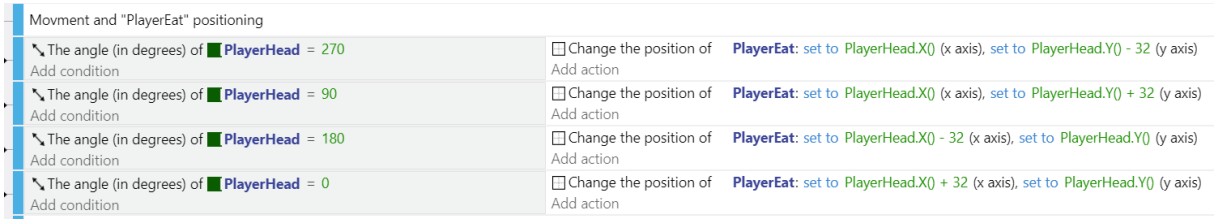
Let's take a look at some of the code

In the beginning of the game, we create the various objects for the game.

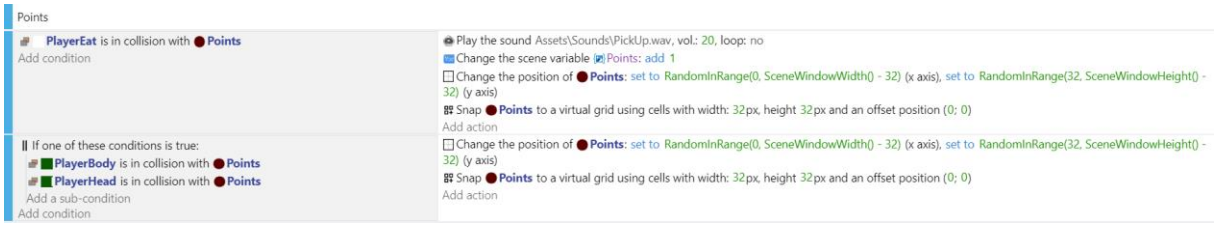
Next, we create the code to control the snake. It is different from what we normally do as we are thinking also about the mobile devices. So we check for the key but also for Swipe.



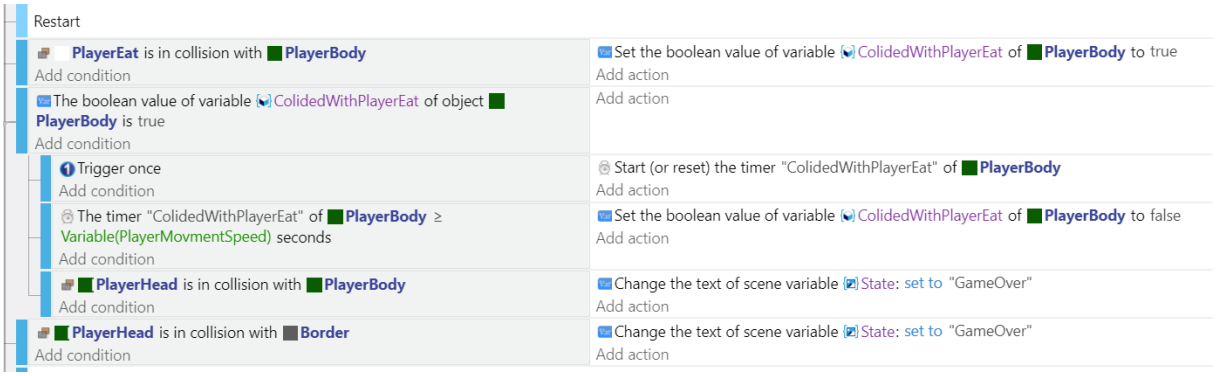
When a Swipe is done or a key is pressed, the direction of the snake changes. *When we change the direction, the same happens to the body.*



Now, what happens when the snake “eats” a point? We play a sound, add 1 to the score, change the position of the next “eatable” point.



And this is the end: the snake collides with the border or with its own body.



RESOURCES

Challenge 24 (Basic)