

# Snake Game

We were inspired by the game commonly called “Snake”. It was first developed in 1976 by the video games company Gremlin Interactive, under the name of “Blockage”. The game is rather simple: the player maneuvers a snake, keeping it from colliding with both other obstacles and itself, which gets harder as the snake lengthens during the game.

We questioned ourselves on how we could improve this game and add more functionalities. Indeed, we wanted to make it more entertaining.

## **I. New functionalities**

We gathered a few ideas on how to improve the game. They are also subject to change since we are not sure if we make them all happen so we will have to adapt them.

### **A. Leveling**

The game evolves during the play, based on the player’s score. It allows the game to introduce different game modes, listed below.

### **B. Multiplayer mode (chosen in the menu)**

Each player controls one snake in the game. The winner is the last snake standing. This multiplayer mode works locally. Each player controls one snake by its assigned keys (arrows, w/a/s/d). A menu will be implemented where the players can select their controls.

### **C. Trivia mode**

The game selects a question from the database. The player has to control its snake across the screen to select the correct answer. If he touches the wrong one, he loses. The questions are drawn from a database file.

### **D. Labyrinth mode**

After each eaten fruit, a wall appears at a random place on the screen, increasing the game difficulty even more.

### **E. Timer**

A chronometer is displayed on the screen : at the end of it the score is shown and the game ends.

### **F. Single Player Mode**

Of course the classic single player mode will still be available.

## **II. Databases**

### **A. Score calculation**

Use of a json file where each fruit and obstacle is presented along with the points that the player would win or lose if they touch it. A score is then calculated and printed on the interface.

### **B. Score memory**

The player can enter his name at the beginning of the game which will be stored in a database file. A highscore can then be linked to each player.

### **C. Trivia questions**

The questions are randomly drawn from a large pool of questions which will be stored in a database file.

## **III. Graphical interface**

A first window presents the game, the rules and a menu. This menu leads to the different gameplays. It contains :

- a text area presenting the game
- the options (radiobutton) to be chosen by the player.

There is also the game window :

- on the right : time, score, maybe comments ( 'nice !', 'yummy !', 'oups!' ...)
- on the left : A square area where the game would take place. The snake is piloted thanks to the keyboard.