Programming Theory

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# Goal

While the player is controlling the move direction of the head of a snake he has to prevent that the head collides with other parts from his body or with the borders.

# Player Controller

The player controls the head of a snake. With the left and right arrow keys or A and D the player can rotate the head and change the moving direction.

# Menu Behaviour

* Player can set a name
* Player can start the game
* Player can quit the game
* Menu shows a high score table of the best 10 players

# Game Behaviour

* Head of snake is moving forward automatically over time
* Parts of the body of the snake follow the head or the parented part of the body
* Food spawns in the bordered area
* Food is rotating on the spawned spot
* If the snake eats the food (by triggering it) …
  + another food spawns in the area
  + the snake’s body can get longer or shorter
  + the player gets points
* Game ends if the snake head collides with the border or his tail.
  + The player can restart the game
  + The player can go back to the menu

# Body Behaviour

* Follows his target
* Scales up and down to show moving behaviour

# Food Types

## Banana

* 5 points
* +1 body length
* 50% chance to spawn

## Apple

* +10 points
* +1 body length
* 35% chance to spawn

## Potion

* +15 points
* -1 body length
* 15% chance to spawn

# Used Assets

* <https://assetstore.unity.com/packages/3d/props/exterior/polygon-prototype-low-poly-3d-art-by-synty-137126>
  + Apple
  + Banana
  + Potion
  + Textures