



[Source : Website – Great Learning]

Final Project Python Snake Game

Course: *Introduction to Computer Science*

Education: *ReDI School* 

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Content



What is my final Project about?



What is my motivation and biggest Challenge to do this project?



Python Snake Game



Snake Game Demo



Q&A

What is Python Snake Game about?

- **Why is a game?**

- ❖ Learning how to program is fun and interactive way.

- **Why I choose Python for my project?**

- ❖ Python is easy-to-understand and easy-to-write code language as beginner

What is my Motivation and Challenge?

- **My future career as Data Scientist**

- **Python Beginner and lack of structured learning approach**

Python Snake Game



[Source : Web Editor—Arduino]

Snake Game Definition



Requirements:

➤ **Knowledges:**

- Data structures (Lists, Dictionaries)
- Operators
- I/O (print, input)
- Functions
- Conditional statements
- Loops

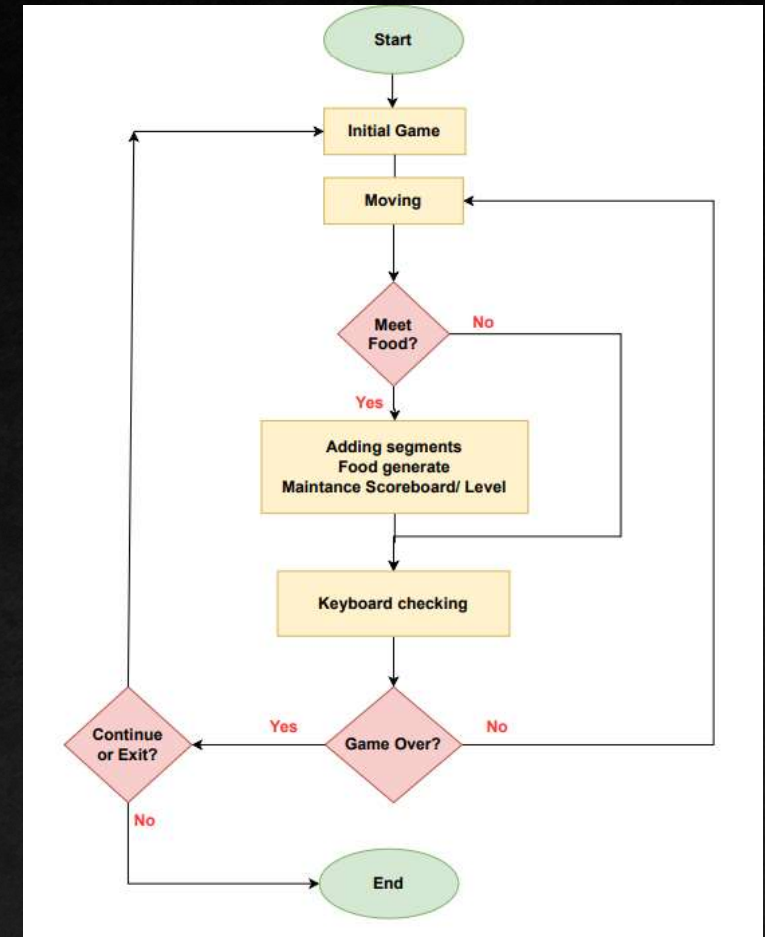
➤ **Libraries:**

- Turtle library for drawing
- Beep Sound with winsound
- Random library to generate random numbers
- Time library to use sleep() function

Snake Game Steps

Steps to build a Snake Game

1. Import module turtle, random and time
2. Creating a game screen
3. Creating a snake body
4. Creating a scoreboard
5. Creating keyboard inputting to the move the snake
6. Creating food for the snake
7. Maintaining a scoreboard with defined level
8. Detecting collision of the snake with food
9. Detecting collision of the snake with the border – Game Over
10. Detecting collision of the snake with its tail – Game Over



Snake Game Demo

Starting point:

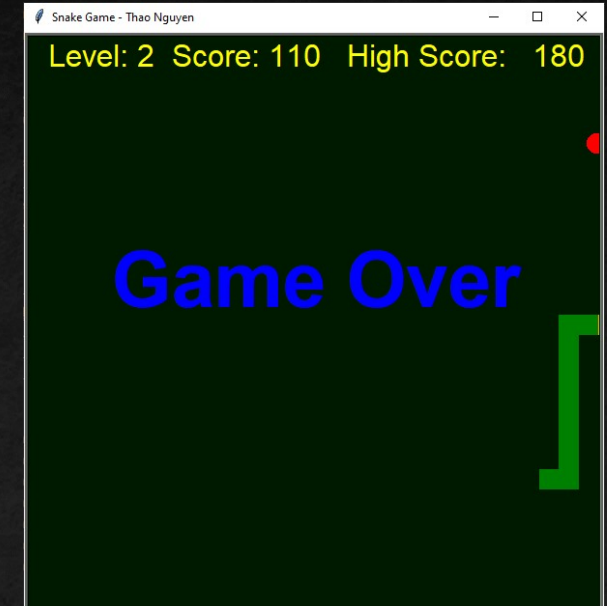
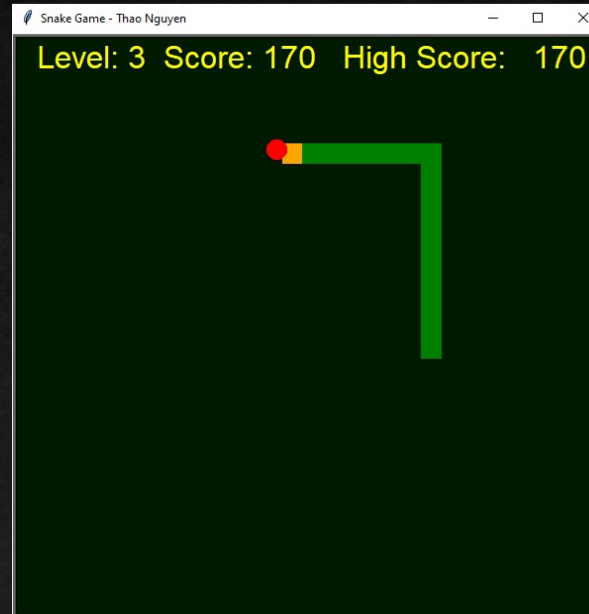
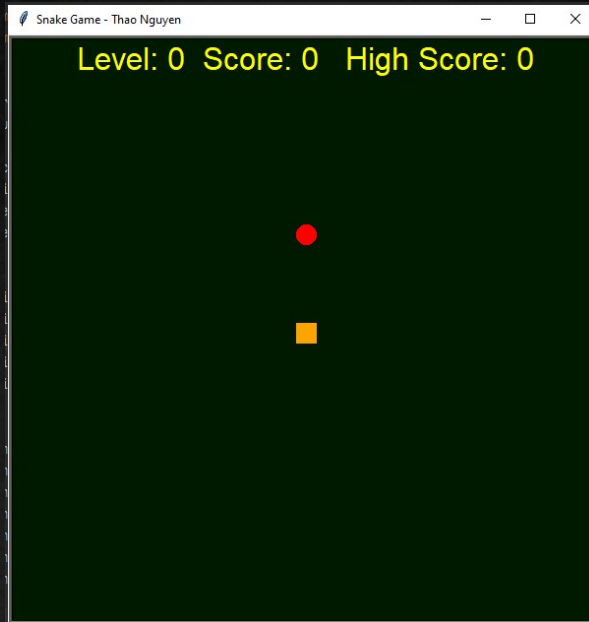
- Screen size 600x600 px
- Level, Score and High Score is 0
- Snake position at center coordinates (0,0)
- Food is random position
- Screen is listening keyboard's input

Snake is eating food:

- Snake eat food and extend his body
- Scoreboard updated changes with level, score and high score values
- Beep sound playing when snake eat the food

Collison to border – Game Over:

- Checking collision of snake movements
- Game Over happens when:
 - Collision to border
 - Collision to his own body
- Display Game Over in the center of screen



Questions and Answers

THANK

YOU!

For Your Attention

What we have learnt from this Snake Game:

Beginner:



[Source : Website – Real Python]

