



Python Snake

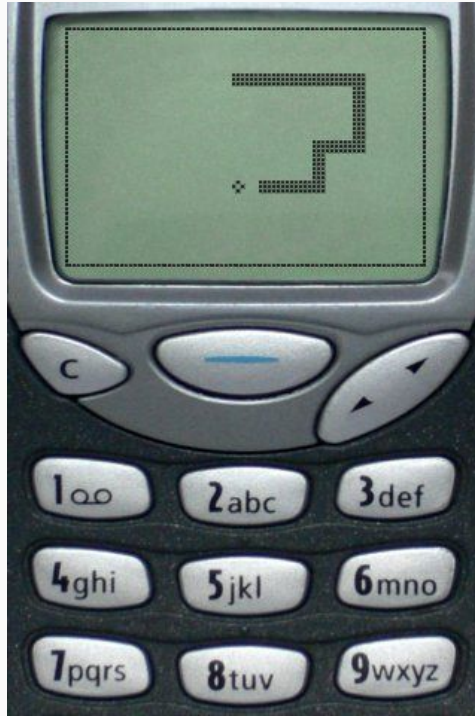
October 23, 2017

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Objective

Use Python3 to build a Snake clone that runs on Linux, Mac OS & Windows

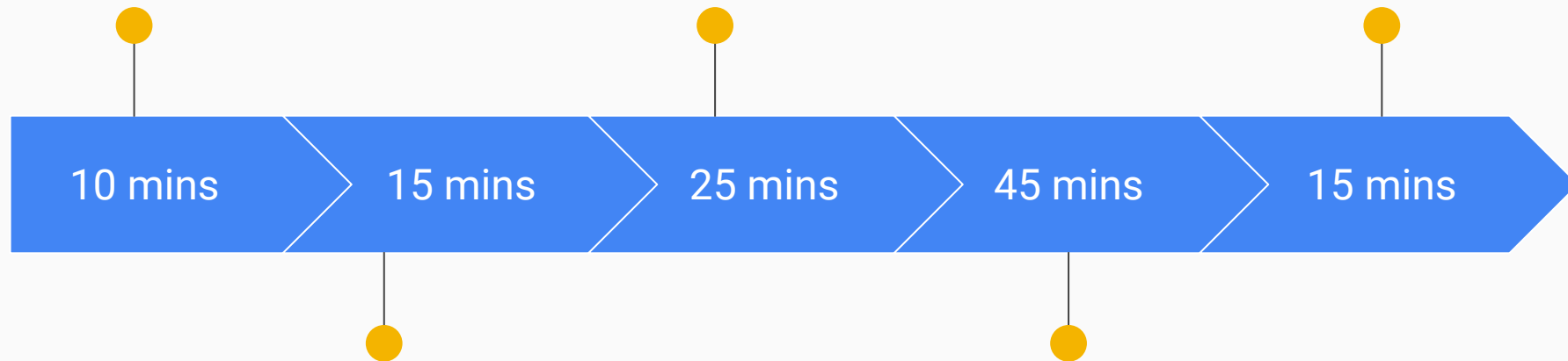


Install Python3 from: <https://www.python.org/downloads/>

Review basic data
structures

Render the snake

Questions &
Suggestions



Discuss game rules

Handle key presses to
move the snake,
implement movement
restrictions

What you need to know

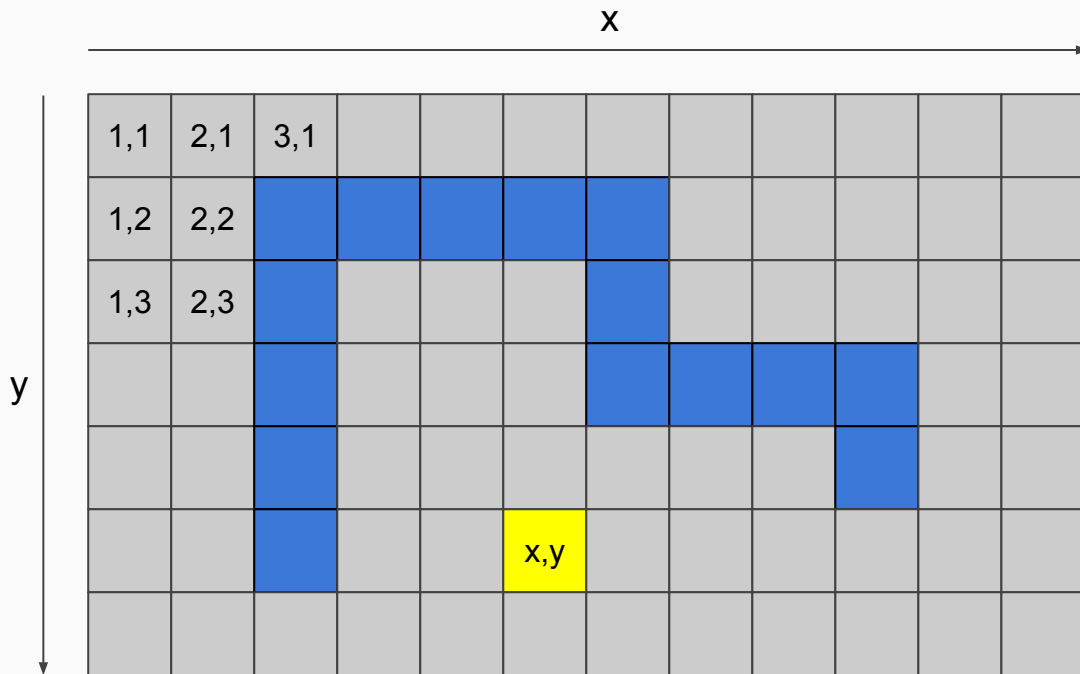
- Lists and tuples
`my_list = [0, 1, 2]`
`my_tuple = (0, 1, 2)`
- Dictionaries and sets
`my_dict = {'a': 1}`
`my_set = set((1, 2, 3))`
- How to iterate
`for item in my_list:`
 `do_something(item)`
- How to define and call functions
`def my_fcn(arg1, arg2):`
 `return arg1 + arg2`
`result = my_fcn(1, 2)`

You'll learn how to

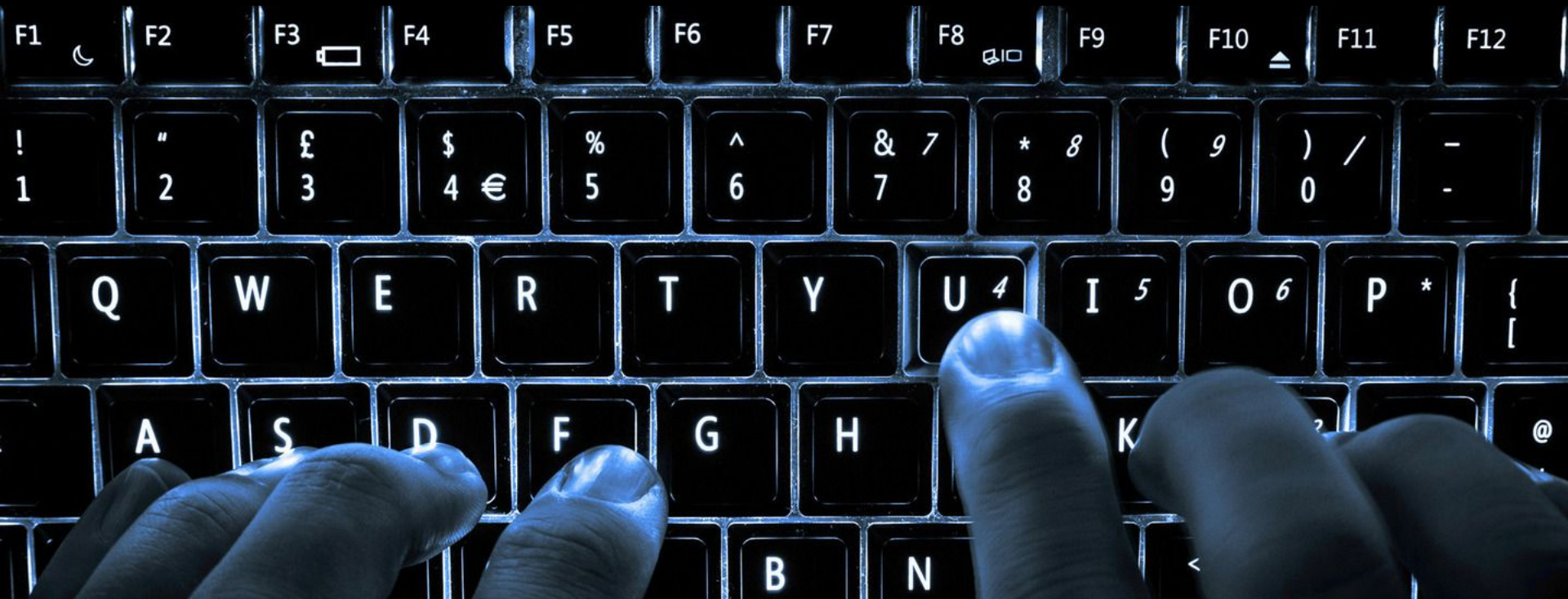
- Draw a GUI
- Handle keyboard presses
- Set timers
- Throw errors
- Use deque
- Use dictionaries to make code more readable

Rules

- A snake can move in 4 directions
- A snake grows every time it eats
- After a snake eats a few times, its speed increases
- A snake dies when it:
 - Crashes into the wall
 - Tries to eat itself
- Cannot go backwards



Let's Code



Afterthoughts

Code is available here:

<https://github.com/jeremija/python-snake>

Improvements:

1. Do not re-render every part of the snake on tick
2. Add hotkeys to pause or reset the game
3. Adjust the game size on window resize
4. Use classes for Snake and Food, and add relevant methods to them
5. Add status text to main window
6. Separate presentation logic from the game logic

Questions?