

Introduction

What is python?



1. Multi-purpose (Web, Robotics, Data Analysis, Machine Learning, Web Crawler, etc.)
2. Object Oriented
3. Interpreted language (C, C++ and Java are compiled language).
4. Focus on readability and efficiency

Installation

Please download and install the latest python version (3.6.0) at <https://www.python.org/downloads/>

On Windows machines, the Python installation is usually placed in C:\Python36, though you can change this when you're running the installer. To add this directory to your path, you can type the following command into the command prompt in a DOS box:

```
set path=%path%;C:\python36
```

Download a text editor or IDE to write python scripts. I would recommend sublime text, a popular choice for python editor. You may download it at <https://www.sublimetext.com/3>

How to use python

There are two ways to use python: using the python interpreter or running the python scripts (*.py files).

Syntax

- i. Beginning with python
- ii. String and list
- iii. Dictionary and set
- iv. Flow control
- v. Method
- vi. Module

Exercise: sudoku generator

5	3			7				
6			1	9	5			
	9	8					6	
8				6				3
4			8		3			1
7				2				6
	6					2	8	
			4	1	9			5
				8			7	9

Rules: <http://www.counton.org/sudoku/rules-of-sudoku.php>

The program will first print the partially filled sudoku board, and then print out the answer after the user presses any key.

Your task:

- Complete the `attempt_board` method.
- The `attempt_board` method should try to fill up the 9*9 list which represent the board.
- Make use of the random module to make sure the numbers are placed randomly.
- The method `attempt_board` should return `None` if it fails to generate the puzzle.
(`generate_board` will keep calling `attempt_board` until it generates a valid board).