Classes, Dictionaries, and More

## Twenty questions Class Project Progress – Iteration 5

It's a marathon (short 😊), not a sprint.

Iteration 5: Say goals, rules before start, including "a number between…"

Don't forget about multi-line (""") strings, and f-strings with inserted values

## Dictionaries / Commands Extended – Setup start, goal, test

In **exercises/dictionarys/motion.py** we saw that python dictionaries can be used in building command-based programs/games. In this exercise we would like to extend this program/game into **move\_to\_goal.py**. Please add and exercise the following additions:

It might be a great idea to test after adding each of the following.

### Start the motion location (row, col) at a random point within the boundaries (1 to board\_width; 1 to board\_height) displayed ("S").

### Place the goal (displayed as "G") at a random place within the board boundaries but not on the start.

### After each move, test if:

* at goal and announce a win if found.
* out-of-bounds and don't allow ("beep" or indicate as such)

Note that we took the liberty of making markers three characters wide for displaying purposes, i.e. " . ", " S ", " G ", "WON" for markers.

Sample Output:

= RESTART: C:\Users\raysm\workspace\python\IntroductionToProgramming\presentation\Class\_4\_Classes\_and\_Dictionaries\homework\solutions\move\_to\_goal.py

Start: row:5 col:5

Goal: row:1 col:3

. . G . .

. . . . .

. . . . .

. . . . .

. . . . S

. . . . .

Enter up,down,left, or right[right]:up

. . G . .

. . . . .

. . . . .

. . . . \*

. . . . S

. . . . .

Enter up,down,left, or right[up]:

. . G . .

. . . . .

. . . . \*

. . . . \*

. . . . S

. . . . .

Enter up,down,left, or right[up]:left

. . G . .

. . . . .

. . . \* \*

. . . . \*

. . . . S

. . . . .

Enter up,down,left, or right[left]:

. . G . .

. . . . .

. . \* \* \*

. . . . \*

. . . . S

. . . . .

Enter up,down,left, or right[left]:up

. . G . .

. . \* . .

. . \* \* \*

. . . . \*

. . . . S

. . . . .

Enter up,down,left, or right[up]:up

. . WON . .

. . \* . .

. . \* \* \*

. . . . \*

. . . . S

. . . . .

Congratulation - you won!

Good bye

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