INFO 6105
Data Science Engineering Methods
Assignment 1 - Text Choice Game

Professor: Nik Bear Brown
Due: Wednesday September 26, 2018

Text choice game can be with up to 2 people.

Assignment 1 - Text Choice Game

Part A (50 Points) Code requirements

In this assignment you will write a simple text input game in python. In the game, text will be written to the prompt describing the situation and the player's choices. The player will type their input into the prompt. The output may be something like: "You are in the kitchen of the white house. A table seems to have been used recently for the preparation of food. A passage leads to the west and a dark staircase can be seen leading upward. A dark chimney leads down and to the east is a small window which is open.

On the table is an elongated brown sack, smelling of hot peppers. A bottle of water is sitting on the table."

Your choices may be something like:

Do you want to:

1. Eat the hot peppers.
2. Take the bottle.
3. Look in the sack.
4. Go to the west passage.
5. Go down the chimney.
6. Look out the east small window

Your code must:

A. Have a function that handles the input. If the input looks like a string it should return a string. If the input looks like a number it should convert that string to a number. It should handle negative, integral and decimal numbers.
B. It should implement the flow of the game as a state machine (http://en.wikipedia.org/wiki/Finite-state_machine). It should have at least 5 game states (for example, 5 rooms) and 5 choices per state (for example, 5 choices of actions in each room).
C. The state of the player must also be maintained (for example, the items a player has collected, if the player is hurt, etc.)
D. There must be a winning condition (for example, finding a path thru all rooms, collecting a set of items, etc.)
E. There must an input for which a mathematical operation is used (i.e. addition, subtraction, division, multiplication)
F. You must keep track of all the moves in the game.
G. You must output stats related to the moves in the game. (at the game end)
H. You must visualize the stats in a separate report saved to the file system.

Part B (15 Points) Tests

You must create a series of tests for each of your functions/classes.

Part C (35 Points) Scoring Rubric for Coding Assignments

In addition to the code requirements and tests the standard scoring rubric for coding assignments will be used. (Quality Score 10, Data definitions /Signature 5, Purpose statements 5, Examples 10, Cookie-cutter 5)

Score	%	Description
Quality Score	10	Professionalism of the work.
Data definitions /Signatures	5	Data description. What goes in and what comes out of the functions that you write.
Purpose statements	5	Concise description of what your functions/classes do.
Examples	10	Examples of the use of your functions/classes.
Cookie-cutter	5	Are there existing snippets, abstractions, etc. to help write your functions/classes.
Tests	15	Tests for your functions/classes.
Code	50	Does your code meet the requirements?

Submission of Coding Assignments

Your submission must include the code, a readme file, at least 3 screenshots of the running app and and the python script(s).

You will submit your assignments via BlackBoard. Click the title of assignment (blackboard -> assignment -> <Title of Assignment>), to go to the submission page. You will know your score on an assignment, project or test via BlackBoard. BlackBoard represents only the raw scores. Not normalized or curved grades. Extra credit will be notified via e-mail.