Data Science with Python
Ticket Out the Door
Set 8: Two-Dimensional Lists

Name _____ Period _____

Skill 8.1 Exercise 1

Create a two-dimensional list called ages where each sublist contains a student's name and their age. Use the following data:

- "Aaron" is 15
- "Dhruti" is 16

Skill 8.2 Exercise 1

Refer to the image below to answer the following,

gradebook					
	Assignment 1	**Assignment 2**	**Assignment 3**	**Assignment 4**	**Assignment 5**
Bart	4.5	1	5	2	4
Kyle	R	5	4	2	2.5
Bugs	1	2	3	4	3
Marvin	4	M	3	3.5	4

What is the row and column associated with Kyle's score on Assignment 3?	
What is the value associated with the following location: row = 3, col = 2	
What is the length of row = 2?	
What is the length of column 5?	

Skill 8.2 Exercise 2

Using the provided table, create a two-dimensional list called class_name_test to represent the data. Each sublist in class_name_test should have one student's name and their associated score.

Name	**Test Score**
"Jenny"	90
"Alexus"	85.5
"Sam"	83
"Ellie"	101.5

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Use double square brackets ([][]) to select Sam's test score from the list class_name_test. Save it to the variable sams_score.
Use double square brackets ([][]) to select Ellies test score from the list class_name_test. ***This time only use negative indices!***

Skill 8.3 Exercise 1

Our school is expanding! We are welcoming a new set of students today from all over the world.
Using the provided table, create a two-dimensional list called incoming_class to represent the data. Each sublist in incoming_class should contain the name, nationality, and grade for a single student.

Name	**Nationality**	**Grade Level**
"Kenny"	"American"	9
"Tanya"	"Ukrainian"	9
"Madison"	"Indian"	7

"Madison" passed an exam to advance a grade. She will be pushed into 8th grade rather than her current 7th in our list. Modify the list using double brackets [][] to make the change. ***Use positive indices***.

"Kenny" likes to be called by his nickname "Ken". Modify the list using double brackets [][] to accommodate the change but ***only using negative indices***.

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Skill 8.4 Exercise 1

Refer to the lists below,

owners = ["Jenny", "Alexus", "Sam", "Grace"]
dogs_names = ["Elphonse", "Dr. Doggy DDS", "Carter", "Ralph"]

Use *zip()* to create a new variable called owners_and_dogs_names that combines owners and dogs_names lists into a zip object.

Then, create a new variable named list_of_names by calling the *list()* function on owners_and_dogs_names.

Print list_of_names.

What is printed?