

School Nova Computer Science 201
Homework 1

Save your code as lastname_homework1.py and submit on Google Classroom

Task 1

Create a Python list of integers from 1 to 8. Let's call it Y.

Can you do it using range()?

Can you do it using list comprehension?

Manually create a list of strings from "a" to "h". Let's call it X. Verify that X has eight elements.

Task 2

Using X and Y from Task 1 and "for" loops, create a nested list CB that would look like this:

```
[[ 'a1', 'b1', 'c1', 'd1', 'e1', 'f1', 'g1', 'h1'],  
 [ 'a2', 'b2', 'c2', 'd2', 'e2', 'f2', 'g2', 'h2'],  
 [ 'a3', 'b3', 'c3', 'd3', 'e3', 'f3', 'g3', 'h3'],  
 [ 'a4', 'b4', 'c4', 'd4', 'e4', 'f4', 'g4', 'h4'],  
 [ 'a5', 'b5', 'c5', 'd5', 'e5', 'f5', 'g5', 'h5'],  
 [ 'a6', 'b6', 'c6', 'd6', 'e6', 'f6', 'g6', 'h6'],  
 [ 'a7', 'b7', 'c7', 'd7', 'e7', 'f7', 'g7', 'h7'],  
 [ 'a8', 'b8', 'c8', 'd8', 'e8', 'f8', 'g8', 'h8']]
```

(These are chess board coordinates).

Note: there are multiple ways to do it. Avoid manual entry.

Verify that CB[0][0] is 'a1' and CB[1][1] is 'b2'.

Task 3

Using CB above, create a dictionary CD1 that would look like this:

```
{(0, 0): 'a1',  
 (0, 1): 'b1',  
 ...  
 (7, 6): 'g8',  
 (7, 7): 'h8'}
```

Verify: CD1 must have 64 elements.