Fall 2021 Python Lesson 11.3

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Herbert Lehman High School
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Do now

Get out your notebook/binder. Write down the date and goal. Be sure to…copy the definition to the right and then answer the questions below:

Suppose I have a list of even numbers (ex: `my_array = [2,4,6,8]`). I want to create a new list of odd numbers starting with 1 using the values from `my_array`,

1. How could I do this with **a for loop**?
2. How could I do this with **list comprehension**?
3. What are some reasons why list comprehension is useful? Why might it not be useful?

List comprehension
A way to create a new list using elements of an old list.

class: Python **goal:** HDW effectively use list comprehension to make a new list out of an old list?

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1. There are a few options here, but one way would be to use the following loop:
```
for i in range (4):
    my_array[i] = my_array[i] - 1
```

2.
```
new_arry = [ x - 1 for x in my_array]
```
3. shorter syntax, but can be confusing when you're looking at someone else's code.

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framing

- **what:** effectively use list comprehension to make a new list out of an old list
- **why:** This is a technique that can be useful
- **where to:** More special methods for lists.

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Work day

be sure to:

A. Find your seat
B. Read through the Weekly goals to the right and the framing below.
C. Copy the vocab in your notes (if it's not there already
D. Begin work! Raise your hand quietly if you have any questions

List comprehension
A way to create a new list using elements of an old list.

Weekly Goal:
A. Complete up through **unit 9**
B. After, that complete **Python word game: Part 1**

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- Make sure students are working quietly. See CodeHS problem guides for specific Python activities.

Frequently asked questions:

+I don't know what to do!?! Make sure to carefully read the instructions. Take notes when watching the video.

+What are you trying to do with your program? answers will vary, direct student to assignment instructions.

+how can I figure out why my code doesn't work? Try getting out a piece of paper, and following your commands yourself. What do you draw. Where do things go wrong?

+What do I do if I forget a command? See the docs section of CodeHS.

wrapping up!
be sure to: read the directions below!

LOOKS LIKE SOMEONE FORGOT TO LOG OFF
JEREMY

1. Make sure there isn't any litter near your workstation.
2. If you borrowed headphones, sign them back in.
3. **Make sure you are logged out of your computer!**
4. Remain in your seat until the bell rings.

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Cell phone distro
be sure to: Carefully read the directions below

a. Students will receive their phones at the end of 9th period and 10th period.
b. Students without a phone may leave class immediately. All other students should remain seated. Once a student collects their phone, they should exit the classroom.
c. Students must show their ID, program, or a notebook with their name on it to receive their phone.

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