

### WOMEN WHO CODE

Women Who Code (WWC) is a global non-profit dedicated to inspiring women to excel in technology careers. We work to support this generation in being and becoming leaders and role models in the tech industry.

- ★ We are the DC Chapter!
- ★ Support us! Volunteer or donate.
- ★ Visit our Meetup site: https://www.meetup.com/Women-Who-Code-DC/
- Request to join our Slack chat website: http://bit.ly/wwcdcslack
- ★ Python Beginners: 1st Wednesday of every other month
- ★ Python Lab: 3rd Wednesday of the month



# HOUSEKEEPING

- Use Twitch chat for questions.
- In Colab:
- Use Run button to execute code snippet
  - for i in (range(θ, 9, 2)): # range(start,stop,step)
    print(i)
- Use "+ Code" button to create your own code cell, copy,, ecit and run your version of the code snippet
  - For i in (range(0, 9, 2)): # range(start,stop,step)
    print(i)
  - [ ] for i in range(6): print(i\*\*2)

# GOALS FOR THIS LAB

- Learn one new thing about loops
- Go back to your codebase and find one thing you can fix (with search/replace) to make the code cleaner or more efficient



# WHAT ARE LOOPS?

#### What are loops?

- a programming structure that repeats a sequence of instructions until a specific condition is met.
- Great to reduce code size, readability, reduce errors
- Beware of:
  - Corner cases
  - Infinite loops
  - Cost

# THINGS TO CONSIDER BEFORE YOU WRITE A LOOP

- "Flat is better than nested" The Zen of Python
- Don't add/remove items in a collection while iterating over it.
   Make a copy
- Try to use in-built functions in the language instead of writing explicit loops (focus of this lab!)
- Processing big data? Use vectorization instead



### RESOURCES (3

Our WWCodeDC Python Github:

https://github.com/womenwhocodedc/python-community

- ★ Inspiration for this lab:
  - Transforming Code into Beautiful Idiomatic Python, Raymond Hettinger <a href="https://www.youtube.com/watch?reload=9&v=anrOzOapJ2E">https://www.youtube.com/watch?reload=9&v=anrOzOapJ2E</a>
  - o Mental Game of Python, Raymond Hettinger <a href="https://www.youtube.com/watch?v=Uwuv05aZ6ug">https://www.youtube.com/watch?v=Uwuv05aZ6ug</a>
- ★ Slack: <u>Sign up!</u> womenwhocodedc.slack.com



### CREDITS

Special thanks to all the people who made and released these awesome resources for free:

- Presentation template by <u>SlidesCarnival</u>
- Photographs by <u>Unsplash</u>