Introduction to Python (Spring 2024)

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Session 3 (Jan 31, 2024)

**Session 3 In-class Exercises**

Exercise One:

\*\*Please spend 10 minutes working on these alone (~5 minutes on each question). You will then discuss the solution in groups\*\*

Create three lists:

humanities = ["English", "History", "French", "Art History", "Philosophy"]

sciences = ["Biology", "Chemistry", "Neuroscience", "Physics", "Ecology"]

social\_sciences = ["Political Science", "Sociology", "Anthropology", "Psychology"]

1. Using conditionals, write the code that prints “You are a philosopher” if the fifth element of humanities is philosophy (hint: remember indices from Monday!)
2. Now write a program that asks what department you are in, and based on the response, outputs one of the following messages (hint: remember the input() function from Monday!):

You are a humanist!

You are a scientist!

You are a social scientist!

You are probably doing something interesting!

Exercise 2:

\*\*Please spend 10 minutes working on these alone (~5 minutes on each question). You will then discuss the solution in groups\*\*

store\_shelf = ["apples", "bread", "cookies", "avocados", "eggs", "milk", "carrots"]

1. Write a for loop to print all the items in store\_shelf starting with the letter “a”
2. Write a for loop to print all the items in store\_shelf that are longer than 5 letters
3. Using your humanities and sciences lists (copied below), write a for loop to compare the number of letters in each element of humanities with each word of sciences, printing the two words and the statement “These words have the same number of letters!” when there is a match for the number of letters

humanities = ["English", "History", "French", "Art History", "Philosophy"]

sciences = ["Biology", "Chemistry", "Neuroscience", "Physics", "Ecology"]