Week: 13 Date: 4/20/2023

| 15-110 Recitation Week 13 |
| --- |

**Reminders**

* Check6-2 due tomorrow (4/19)
* Full HW6 due next friday (4/26), no revisions
* [Recitation Feedback Form](https://forms.gle/dWgvmGvTSMbRi7rv5)

**Overview**

* ML Fast Facts
* Monte Carlo: Code Writing
* Data Visualizations with Matplotlib
* HW6 Check in’s

| Problems |
| --- |

# **ML Fast Facts**

What is the difference between classification, regression, and clustering?

|  |
| --- |

What is the difference between supervised and unsupervised learning?

|  |
| --- |

T/F: A common step in machine learning is training on testing data.

|  |
| --- |

# **Monte Carlo**

Write a Monte Carlo Method to compute the expected number of units you will take in a given semester at CMU. Assume you take anywhere from 3 to 5 classes a semester and each class is between 9 and 12 units. Hint: you may want to import a helpful package!

|  |
| --- |
|  |

**Data Visualization Practice: Matplotlib**

Recall the ice cream data from lecture that contains the top 3 favorite ice cream flavors of 110 students from the past 3 semesters. Using the starter code provided, write the following two functions to visualize the data:

1. Write the function makeFlavorDict(data) that takes in a 2D list representation of the data and creates and returns a new dictionary mapping the #1 favorite ice cream flavor of students to a count of its occurrences. Use the “#1 cleaned” column of this data for this problem.
2. Using the returned dictionary from the function above, write the function visualize(dict) that creates a bar chart for each ice cream flavor.