Problem 1: Logistics (0 points)

- Ensure you have a picture on D2L

- Install MATLAB on your computer and bring it to class (if you can)

Problem 2: MATLAB Practice (10 points)

(a) Write the MATLAB script that does the following steps

   (a) Create an array A of 20 zeros

   (b) Put a 1 in the second entry in the array, i.e., $A = [0, 1, 0, \ldots, 0]$

   (c) Loop over the third to twentieth entries and compute the value by adding the previous two values. For example $A(3) = A(1) + A(2)$ and $A(4) = A(2) + A(3)$.

   (d) Display the final result along with the name of this famous sequence of numbers

(b) Create a line plot of the functions $y = \sin(x)$ and $y = \cos(x)$ on the interval $x = [-\pi, \pi]$ with 1000 grid points. Label your axes, adjust the font size so the figure looks good, add a legend with line types that easily distinguishable.

(c) Find a picture that depicts your summer and use MATLAB to display the image with a title and caption describing the activity.

Cat depicting summer mood

'Is it safe to play yet?'

(d) Using the Publish feature in MATLAB, save your code and output as a pdf with the filename following this convention.
File Naming: All MATLAB scripts should follow the following format
    Lastname_Firstname_Sec###_HW#.m
Example: For John Doe homework assignment 1 for section 003 it would be written as
    Doe_John_Sec003_HW1.m

Turn in the PDF of your MATLAB code that includes your output (e.g., figures) to GRADESCOPE. Also, upload your code (m-file) to the assignment folder on D2L. *Be sure your code has comments explaining what is being done, as this is good programming practice.*