**Exercise 4: Working with Lists**

Please work through as many of the following exercises as you’re able to in the allotted time and upload the results of the last task you were able to complete**.**

1. Think of at least three kinds of your favorite pizza. Store these pizza names in a list, and then use a for loop to print the name of each pizza.

• Modify your for loop to print a sentence using the name of the pizza instead of printing just the name of the pizza. For each pizza you should have one line of output containing a simple statement like I like pepperoni pizza.

• Add a line at the end of your program, outside the for loop, that states how much you like pizza. The output should consist of three or more lines about the kinds of pizza you like and then an additional sentence, such as I really love pizza!

Ensure you don’t discard your code, you’ll come back to it later.

1. Think of at least three different animals that have a common characteristic. Store the names of these animals in a list, and then use a for loop to print out the name of each animal.

• Modify your program to print a statement about each animal, such as A dog would make a great pet.

• Add a line at the end of your program stating what these animals have in common. You could print a sentence such as Any of these animals would make a great pet!

1. Use a for loop to print the numbers from 1 to 20, inclusive.
2. Make a list of the numbers from one to one million, and then use min() and max() to make sure your list actually starts at one and ends at one million. Also, use the sum() function to see how quickly Python can add a million numbers.
3. Make a list of the multiples of 3 from 3 to 30. Use a for loop to print the numbers in your list

**Stretch and Challenge**

If you complete the previous steps within the allotted time please move on to the following.

1. Start with your program from question 1. Make a copy of the list of pizzas, and call it friend\_pizzas. Then, do the following:

• Add a new pizza to the original list.

• Add a different pizza to the list friend\_pizzas.

• Prove that you have two separate lists. Print the message, My favorite pizzas are:, and then use a for loop to print the first list. Print the message, My friend’s favorite pizzas are:, and then use a for loop to print the second list. Make sure each new pizza is stored in the appropriate list.

1. A buffet-style restaurant offers only five basic foods. Think of five simple foods, and store them in a tuple.

• Use a for loop to print each food the restaurant offers.

• Try to modify one of the items, and make sure that Python rejects the change.

• The restaurant changes its menu, replacing two of the items with different foods. Add a block of code that rewrites the tuple, and then use a for loop to print each of the items on the revised menu