# Module 7.3 Data Structures - List Questions: Coding Questions

## Question 1: An online retailer needs a function to filter out all orders below a certain amount. Write this function.

Hint: Iterate over the list of orders and use a conditional statement to add orders above the threshold to a new list.

## Question 2: A sports analytics company wants a function that finds the maximum score from a list of player scores.

Hint: Use a loop to iterate through the scores and keep track of the highest score found.

## Question 3: Create a function that normalizes a list of temperatures to a scale of 0 to 100.

Hint: Find the max and min values in the list, then use these to normalize the temperatures.

## Question 4: Implement a function for a restaurant to calculate the total bill from a list of prices and apply a given discount.

Hint: Sum the list of prices, then apply the discount to calculate the total bill.

## Question 5: A music app needs a function to shuffle a playlist. Write a function that rearranges the songs in a list in a random order.

Hint: Use the random module's shuffle method to rearrange the list items.

## Question 6: Write a function that takes a list of words and an integer n, and returns a list of words that are longer than n.

Hint: Use list comprehension or a loop with a conditional to filter the words.

## Question 7: A survey data processing function needs to remove all instances of 'N/A' or 'None' values from the dataset.

Hint: Iterate through the list in reverse to safely remove unwanted values without skipping elements.

## Question 8: Create a function that merges two lists of sorted numbers into a single sorted list without using the sort method.

Hint: Use two pointers to iterate through the lists, adding the smaller current element to a new list.

## Question 9: A finance tool requires a function to categorize expenses into 'High', 'Medium', and 'Low' based on predefined thresholds.

Hint: Use loops and conditionals to test each expense against the thresholds and append it to the correct category list.

## Question 10: Write a function that generates a list of unique random numbers given a range and the number of elements.

Hint: Use a loop and the random module to generate numbers, ensuring uniqueness before adding to the list.