Assignment 7

1. Write a function that takes in two strings and returns true if they are anagrams of each other.

2. Write a program that generates a random number between 1 and 10,000,000, inclusive.

3. Write a function that finds the longest palindromic substring in a given string.

4. Write a program that sorts an array of integers using the quicksort algorithm.

5. Write a program that finds the maximum subarray sum in an array of integers.

6. Write a program that determines whether a given string is a valid URL.

7. Write a function that converts a given string to lowercase.

8. Write a program that generates a random password consisting of lowercase letters, digits, and special characters.

9. Write a program that checks if a given number is prime.

10. Write a function that calculates the factorial of a given number.