Homework 10

0. Create a program that checks if a given word or phrase is a palindrome (reads the same forwards and backward).

1. Write a function that checks if a given number is prime or not.

2. Write a program to reverse a given string without using string slicing.

3. Create a program that checks if two given strings are anagrams of each other.

4. Write a program that counts the number of words in a given string.

5. Create a program that reads a CSV file, "sales.csv," containing sales data, and a JSON file, "products.json," with product information. Calculate the total revenue for each product and save it in a new CSV file called "product_revenue.csv."

6. Develop a Python script that reads a JSON file called "inventory.json" with information about products and their quantities. Create a new CSV file, "low_stock.csv," containing the names of products with a quantity less than 10.

7. Write a program that is given a number and an array and checks if there is a pair of numbers in the array that has a sum equal to the given number. (two-sum problem)