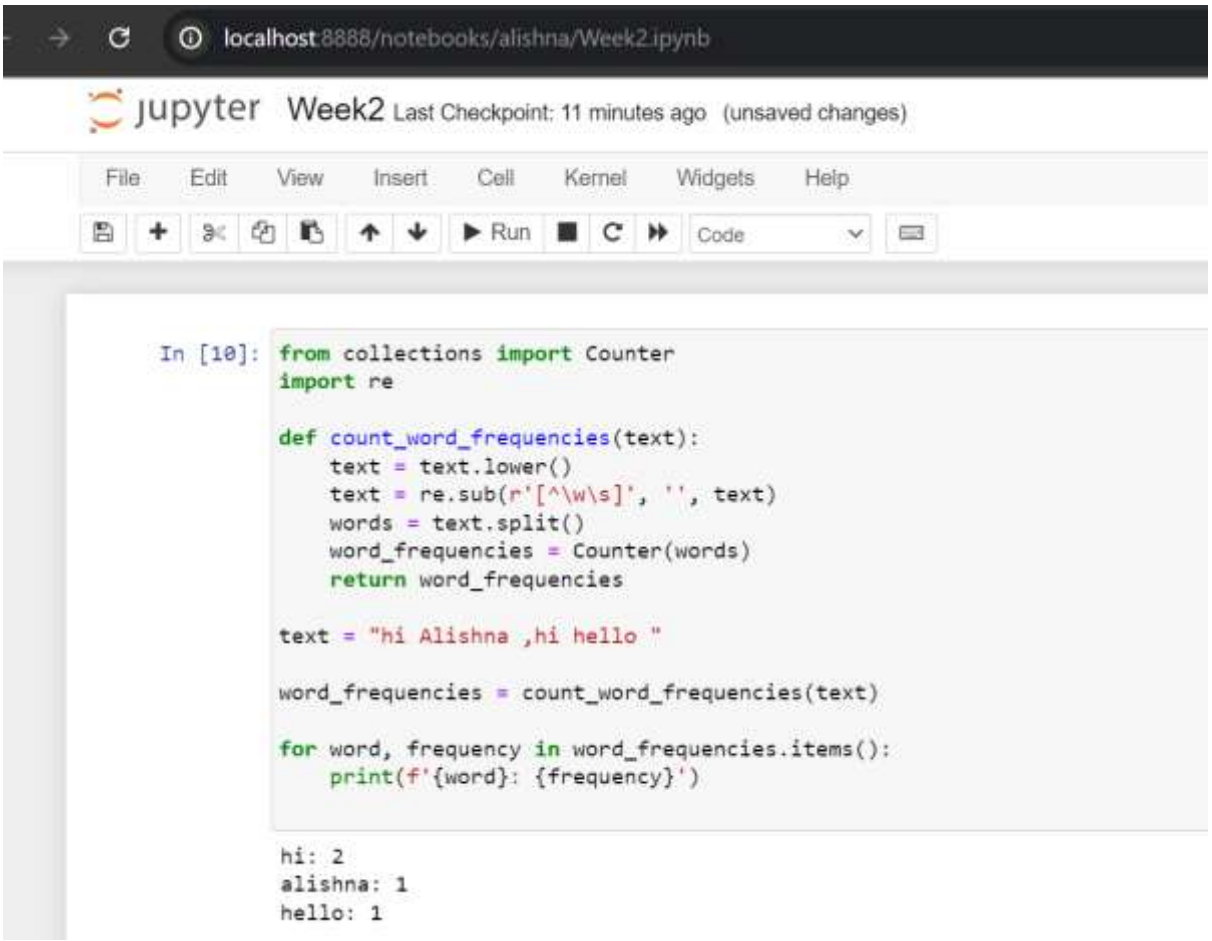
Assignment 2:

-Alishna Mukhya A

1. Write a program to count word frequencies in a given text

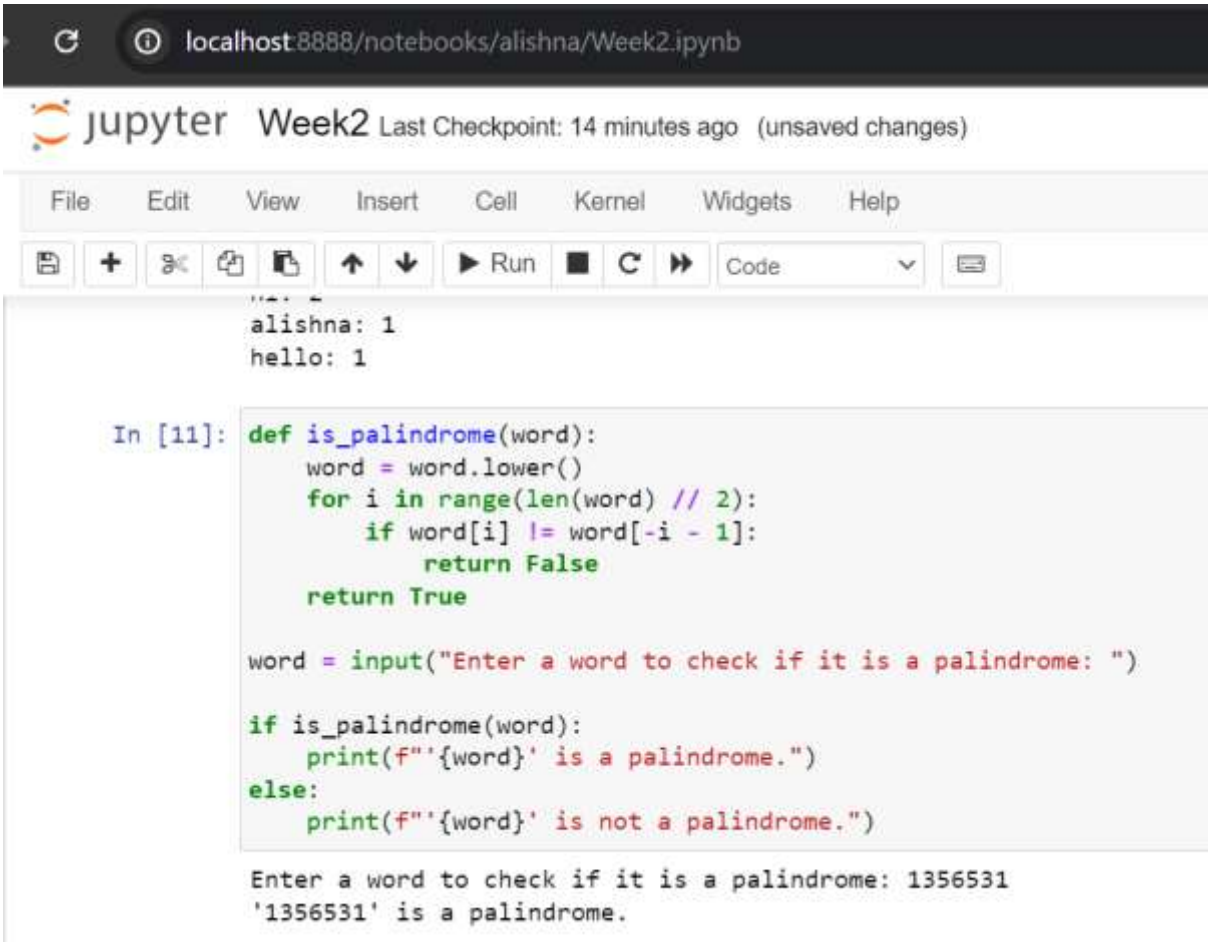
Program:



Explanation: First, it cleans up the text by making everything lowercase and getting rid of any punctuation marks. Then, it splits the text into individual words. After that, it starts counting: for each word, it keeps track of how many times it shows up. Finally, it presents the results by listing each word along with its count.

2.Write a program that checks if a given word is a palindrome.

Program:



Explanation: The loop iterates through the first half of the string, comparing each character with its corresponding character from the end. If all pairs match, the word is a palindrome; otherwise, it's not.

3.Create a list of numbers, then write a program that prints the square of each number in the list.

Program:

```
In [13]: numbers = [1, 2, 3, 4, 5]
         squares = [number ** 2 for number in numbers]
         for square in squares:
             print(square)
```

```
1
4
9
16
25
```

Explanation This program makes a list of numbers. Then, it goes through each number in the list, calculates its square, and shows the result