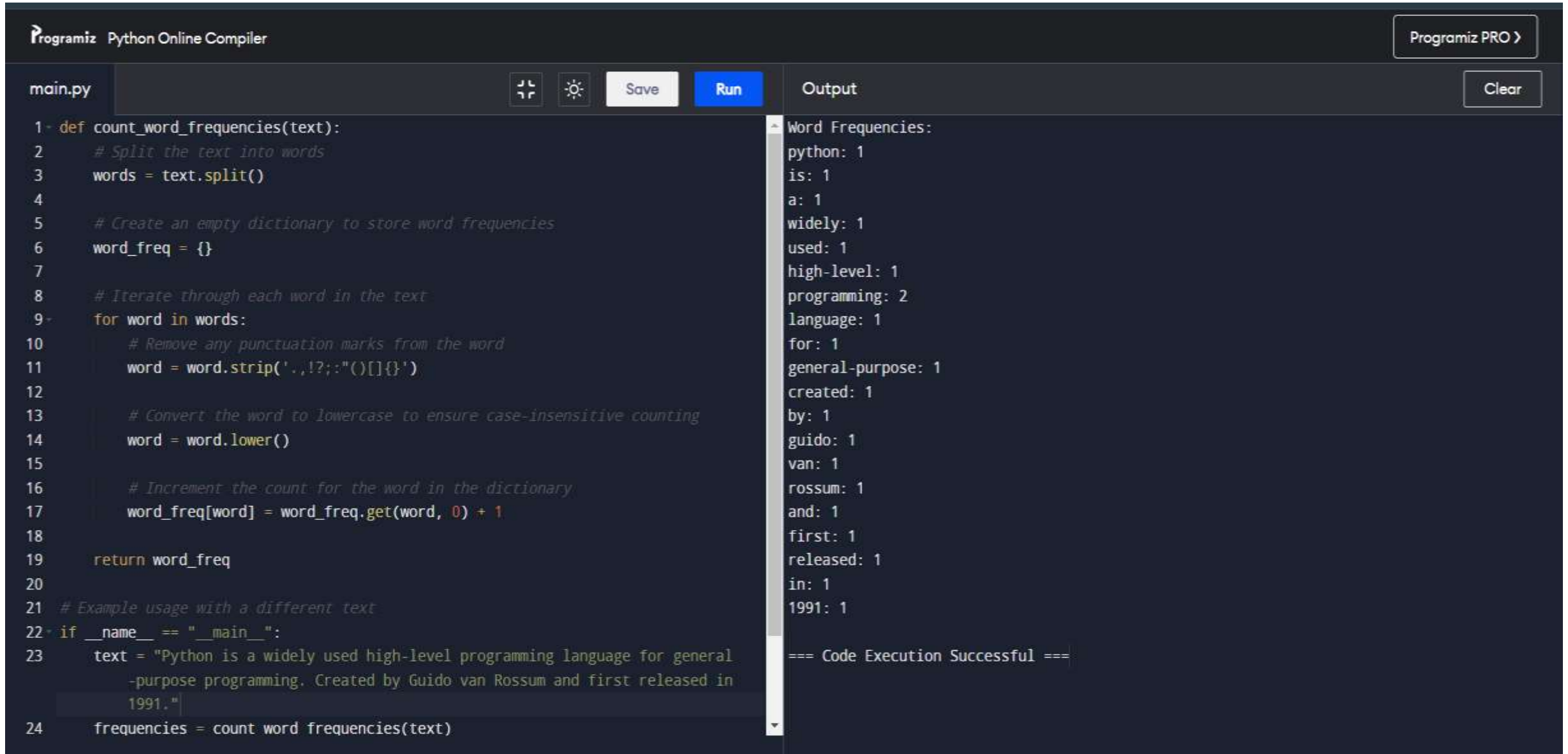


PYTHON INTERNSHIP WEEK-2(ASSIGNMENT)

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INTERN AT VAULT OF CODES

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



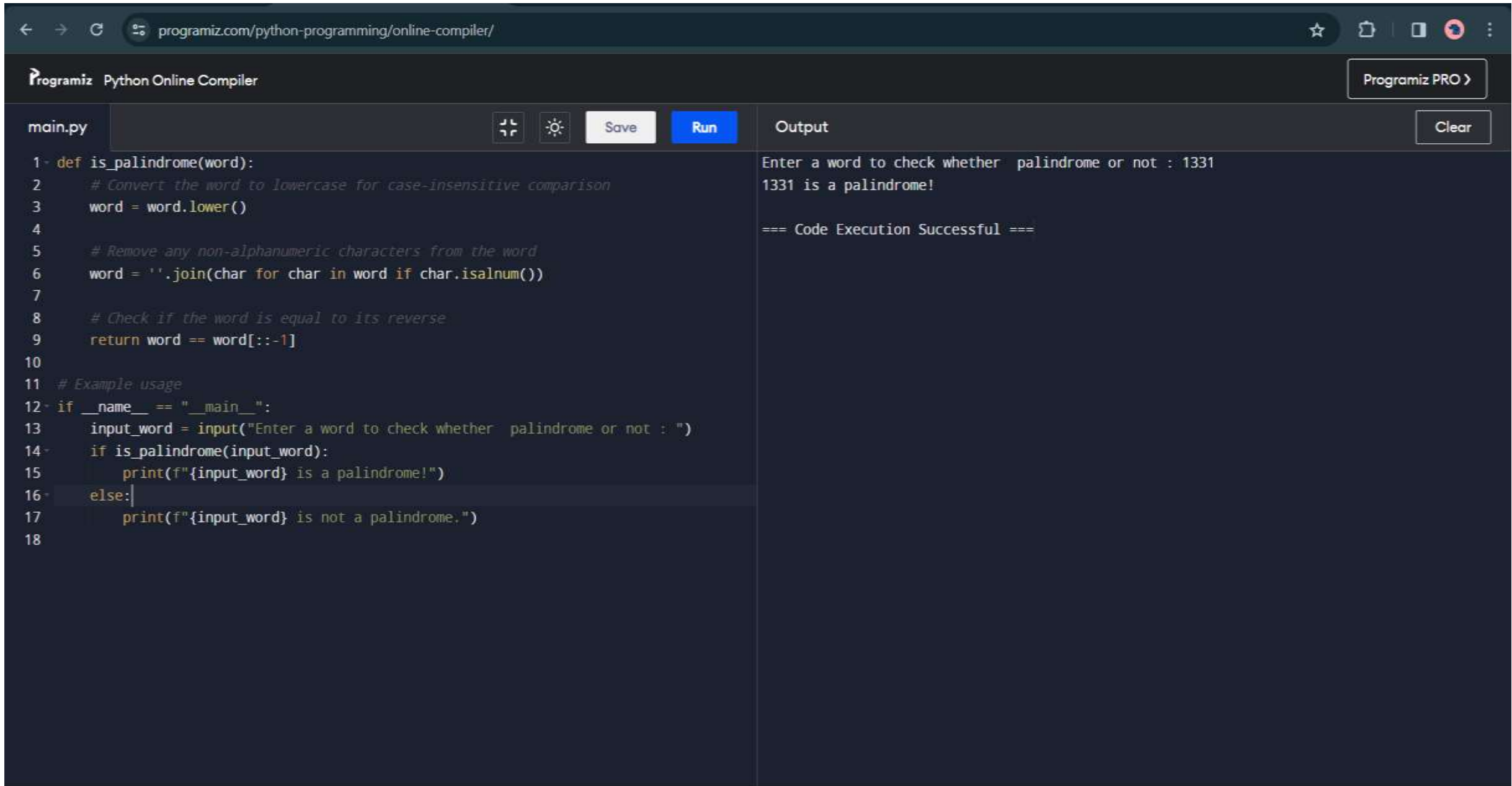
The image shows a screenshot of a Python Online Compiler interface. The left pane displays a Python script named `main.py` that defines a function `count_word_frequencies(text)` to count word frequencies. The script includes comments and an example usage at the bottom. The right pane shows the output of the program, which lists the words and their frequencies. The output is as follows:

```
Word Frequencies:
python: 1
is: 1
a: 1
widely: 1
used: 1
high-level: 1
programming: 2
language: 1
for: 1
general-purpose: 1
created: 1
by: 1
guido: 1
van: 1
rosum: 1
and: 1
first: 1
released: 1
in: 1
1991: 1

=== Code Execution Successful ===
```

```
Programiz Python Online Compiler
main.py
1- def count_word_frequencies(text):
2     # Split the text into words
3     words = text.split()
4
5     # Create an empty dictionary to store word frequencies
6     word_freq = {}
7
8     # Iterate through each word in the text
9-   for word in words:
10       # Remove any punctuation marks from the word
11       word = word.strip('.,!?:;"()[\]{}\'')
12
13       # Convert the word to lowercase to ensure case-insensitive counting
14       word = word.lower()
15
16       # Increment the count for the word in the dictionary
17       word_freq[word] = word_freq.get(word, 0) + 1
18
19   return word_freq
20
21 # Example usage with a different text
22- if __name__ == "__main__":
23     text = "Python is a widely used high-level programming language for general
           -purpose programming. Created by Guido van Rossum and first released in
           1991."
24     frequencies = count_word_frequencies(text)
```

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



The screenshot displays the Programiz Python Online Compiler interface. The browser address bar shows the URL `programiz.com/python-programming/online-compiler/`. The compiler's header includes the Programiz logo, the text "Python Online Compiler", and a "Programiz PRO" button. Below the header, the file name "main.py" is shown next to icons for window management and a "Run" button. The code editor contains the following Python code:

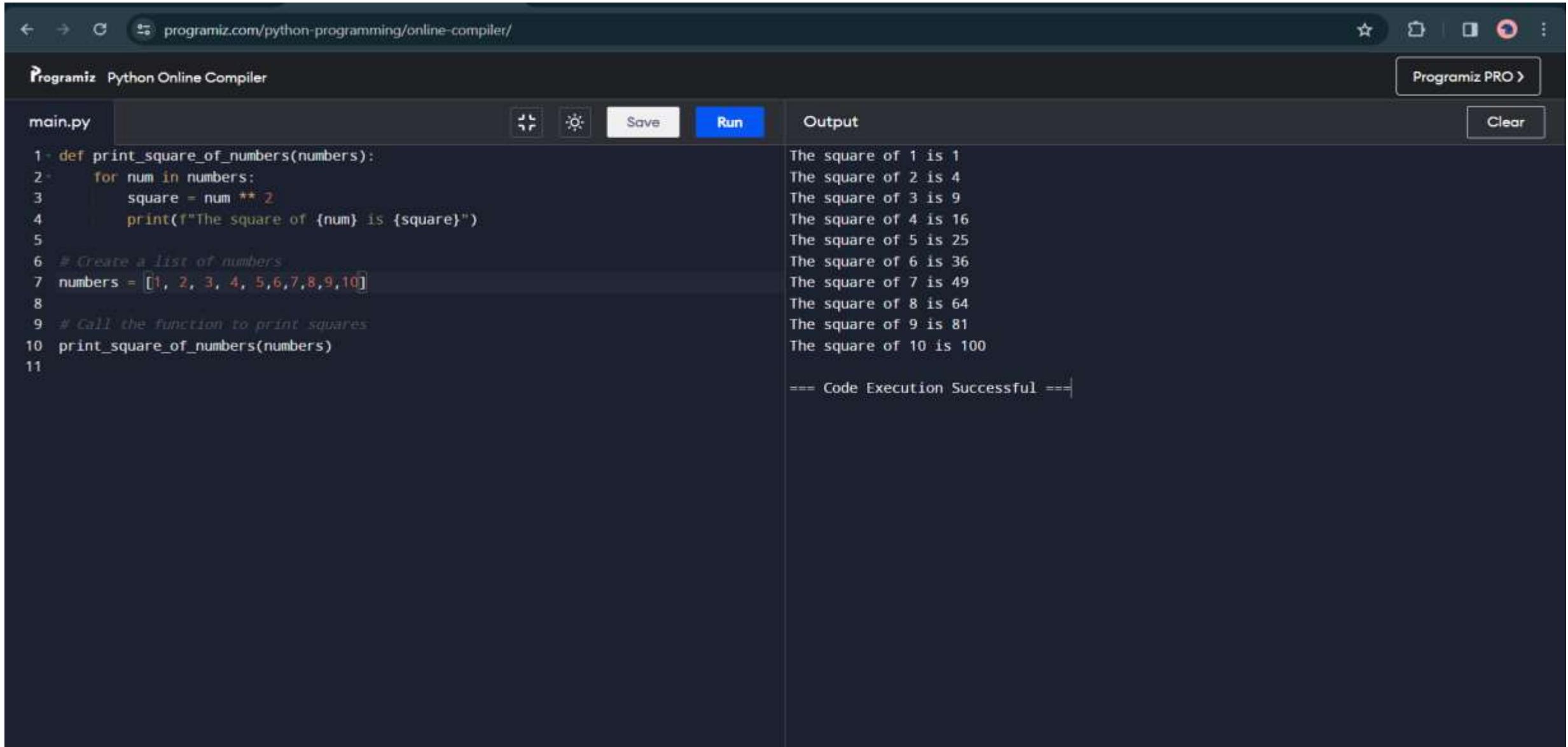
```
1- def is_palindrome(word):
2-     # Convert the word to lowercase for case-insensitive comparison
3-     word = word.lower()
4-
5-     # Remove any non-alphanumeric characters from the word
6-     word = ''.join(char for char in word if char.isalnum())
7-
8-     # Check if the word is equal to its reverse
9-     return word == word[::-1]
10
11 # Example usage
12 if __name__ == "__main__":
13     input_word = input("Enter a word to check whether palindrome or not : ")
14     if is_palindrome(input_word):
15         print(f"{input_word} is a palindrome!")
16     else:
17         print(f"{input_word} is not a palindrome.")
18
```

The output panel on the right shows the execution results:

```
Enter a word to check whether palindrome or not : 1331
1331 is a palindrome!

=== Code Execution Successful ===
```

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



The screenshot shows the Programiz Python Online Compiler interface. The browser address bar displays `programiz.com/python-programming/online-compiler/`. The compiler has a dark theme and includes a 'Programiz PRO' button in the top right corner. The editor on the left is titled 'main.py' and contains the following Python code:

```
1 def print_square_of_numbers(numbers):
2     for num in numbers:
3         square = num ** 2
4         print(f"The square of {num} is {square}")
5
6 # Create a list of numbers
7 numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
8
9 # Call the function to print squares
10 print_square_of_numbers(numbers)
11
```

Below the code editor are icons for a full-screen view and settings, along with 'Save' and 'Run' buttons. The 'Output' panel on the right displays the results of the program execution:

```
The square of 1 is 1
The square of 2 is 4
The square of 3 is 9
The square of 4 is 16
The square of 5 is 25
The square of 6 is 36
The square of 7 is 49
The square of 8 is 64
The square of 9 is 81
The square of 10 is 100

=== Code Execution Successful ===
```

A 'Clear' button is located in the top right corner of the output panel.