

ASSIGNMENT-II

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

Code:

```
def count_word_frequencies(text):
    words = text.lower().split()
    word_freqs = {}
    for word in words:
        word = ''.join(e for e in word if e.isalnum())
        if word not in word_freqs:
            word_freqs[word] = 1
        else:
            word_freqs[word] += 1
    return word_freqs
text = "Hello world, i am universe. world is a part of universe."
word_freqs = count_word_frequencies(text)
for word, freq in word_freqs.items():
    print(f"{word}: {freq}")
```

Output:

```
universe: 2
is: 1
a: 1
part: 1
of: 1

...Program finished with exit code 0
```

2. Palindrome Checker

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

Code:

```
def is_palindrome(word):  
    return word == word[::-1]  
  
word = input("Enter a word: ")  
if is_palindrome(word):  
    print(f"'{word}' is a palindrome!")  
else:  
    print(f"'{word}' is not a palindrome.")
```

Output:

Case-1:

```
Enter a word: racecar  
'racecar' is a palindrome!  
  
...Program finished with exit code 0
```

Case-2:

```
Enter a word: Track  
'Track' is not a palindrome.  
  
...Program finished with exit code 0
```

3.List Manipulation

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

Code:

```
# Create a list of numbers
numbers = [11,12,13,14,15]

# Print the squares of each number in the list
for num in numbers:
    print(f"The square of {num} is {num ** 2}")
```

Output:

```
The square of 11 is 121
The square of 12 is 144
The square of 13 is 169
The square of 14 is 196
The square of 15 is 225

...Program finished with exit code 0
```