

# Assignment 5

Write the Code in Functional Programming concepts!!

The below are 25 Questions that will test your problem solving ability using python make sure you use functions concepts everywhere

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**Print "Hello, World!"**

- **Sample Input:** None
- **Sample Output:** Hello, World!

- **Calculate the sum of numbers from 1 to 100**

- **Sample Input:** None
- **Sample Output:** 5050

- **Check if a number is even or odd**

- **Sample Input:** 7
- **Sample Output:** Odd

- **Print all even numbers between 1 and 20**

- **Sample Input:** None
- **Sample Output:** 2 4 6 8 10 12 14 16 18 20

- **Convert Celsius to Fahrenheit**

- **Sample Input:** 100
- **Sample Output:** 212

- **Reverse a given string**

- **Sample Input:** hello
- **Sample Output:** olleh

- **Count the number of vowels in a string**

- **Sample Input:** hello world
- **Sample Output:** 3

- **Find the maximum number in a list**

- **Sample Input:** [1, 3, 5, 7, 9]
  - **Sample Output:** 9
- **Multiply all the numbers in a list**
  - **Sample Input:** [1, 2, 3, 4]
  - **Sample Output:** 24
- **Calculate factorial of a given number**
  - **Sample Input:** 5
  - **Sample Output:** 120
- **Check if a word is a palindrome**
  - **Sample Input:** radar
  - **Sample Output:** True
- **Count occurrences of a character in a string**
  - **Sample Input:** banana, a
  - **Sample Output:** 3
- **Print Fibonacci sequence up to n terms**
  - **Sample Input:** 7
  - **Sample Output:** 0 1 1 2 3 5 8
- **Find the sum of the digits of a number**
  - **Sample Input:** 1234
  - **Sample Output:** 10
- **Check if a number is a prime number**
  - **Sample Input:** 29
  - **Sample Output:** True
- **Print all prime numbers between 1 and 50**
  - **Sample Input:** None
  - **Sample Output:** 2 3 5 7 11 13 17 19 23 29 31 37 41 43 47
- **Remove all vowels from a string**
  - **Sample Input:** hello world
  - **Sample Output:** hll wrld
- **Find the length of the longest word in a sentence**

- **Sample Input:** `Hello world from Python`
- **Sample Output:** `6`
- **Sort a list of numbers**
  - **Sample Input:** `[12, 4, 5, 10, 6]`
  - **Sample Output:** `[4, 5, 6, 10, 12]`
- **Check if two strings are anagrams**
  - **Sample Input:** `listen, silent`
  - **Sample Output:** `True`
- **Calculate the number of days between two dates**
  - **Sample Input:** `2023-01-01, 2023-01-31`
  - **Sample Output:** `30`
- **Find the second largest number in a list**
  - **Sample Input:** `[1, 3, 4, 5, 0]`
  - **Sample Output:** `4`
- **Convert a decimal number to binary**
  - **Sample Input:** `18`
  - **Sample Output:** `10010`
- **Find the common elements between two lists**
  - **Sample Input:** `[1, 2, 3, 4], [3, 4, 5, 6]`
  - **Sample Output:** `[3, 4]`
- **Create a simple interest calculator**
  - **Sample Input:** `principal=1000, rate=5, time=3`
  - **Sample Output:** `150`