

# @November 14, 2024

Write a Python function called `fizz_buzz` that takes a single integer parameter `n`. The function should print out the numbers from 1 to `n`, following these rules:

- For numbers divisible by 3, print "Fizz" instead of the number.
- For numbers divisible by 5, print "Buzz" instead of the number.
- For numbers divisible by both 3 and 5, print "FizzBuzz" instead of the number.
- For all other numbers, simply print the number.

The function should not return anything, it should only print the appropriate output.

```
def fizz_buzz(n):
    for i in range(1, n+1):
        if i % 3 == 0 and i % 5 == 0:
            print("FizzBuzz")
        elif i % 3 == 0:
            print("Fizz")
        elif i % 5 == 0:
            print("Buzz")
        else:
            print(i)
```

## More Functions questions:

**Write a function that takes a list of numbers and returns the sum of all even numbers in the list:**

```
def sum_even_numbers(numbers):
    total = 0
    for num in numbers:
```

```
    if num % 2 == 0:
        total += num
    return total
```

**Write a function that takes a list of strings and returns a new list with all strings that are longer than 5 characters:**

```
def long_strings(strings):
    long_list = []
    for s in strings:
        if len(s) > 5:
            long_list.append(s)
    return long_list
```

**Write a function that takes a number and returns the factorial of that number:**

```
def factorial(n):
    result = 1
    for i in range(1, n+1):
        result *= i
    return result
```

**Write a function that takes a list of numbers and returns the second largest number in the list:**

```
def second_largest(numbers):
    if len(numbers) < 2:
        return None
    largest = max(numbers[0], numbers[1])
    second_largest = min(numbers[0], numbers[1])
    for num in numbers[2:]:
        if num > largest:
            second_largest = largest
```

```
        largest = num
    elif num > second_largest:
        second_largest = num
    return second_largest
```

**Write a function that takes a list of numbers and returns a new list with all negative numbers removed:**

```
def remove_negatives(numbers):
    positive_list = []
    for num in numbers:
        if num >= 0:
            positive_list.append(num)
    return positive_list
```