

# Assignement 1 : Operators | Loops

Submitted By : Mayur Gadhav

## Lets Play With Fibonacci

**Write a Python program to get the Fibonacci series between 0 to 50**

In [4]:

```
# Fibonacci function using recursion
def fibonacci(n):
    # Base cases for 0 and 1
    if n <= 1:
        return n
    else:
        # Recursive call to calculate Fibonacci number
        return fibonacci(n-1) + fibonacci(n-2)

# Main program
print("Fibonacci series between 0 and 50:")

# Initialize index i as 1
i = 1

# Iterate until the Fibonacci number exceeds 50
while fibonacci(i) <= 50:
    # Print the Fibonacci number at index i
    print(fibonacci(i))

    # Increment index i
    i += 1
```

Fibonacci series between 0 and 50:

```
1
1
2
3
5
8
13
21
34
```

## Send the Words To Mirror Dimension

**Write a Python program that accepts a word from the user and reverse it.**

In [3]:

```
# Prompt the user to enter a word
word = input("Enter a word: ")

# Initialize an empty string to store the reversed word
reversed_word = ""

# Iterate over the indices of the word in reverse order
for i in range(len(word) - 1, -1, -1):
    # Append the character at the current index to the reversed_word string
    reversed_word += word[i]

# Print the reversed word
print("Reversed word:", reversed_word)
```

Enter a word: Edyoda  
Reversed word: adoydE

## Don't go Outside in Odd day

**Write a Python program to count the number of even and odd numbers from a series of numbers.**

In [5]:

```
# Prompt the user to enter a series of numbers
numbers = input("Enter a series of numbers (separated by spaces): ")

# Split the input into individual numbers
number_list = numbers.split()

# Initialize counters for even and odd numbers
even_count = 0
odd_count = 0

# Iterate over each number in the list
for number in number_list:
    # Convert the number from string to integer
    number = int(number)

    # Check if the number is even
    if number % 2 == 0:
        even_count += 1
    else:
        odd_count += 1

# Print the count of even and odd numbers
print("Number of even numbers:", even_count)
print("Number of odd numbers:", odd_count)
```

```
Enter a series of numbers (separated by spaces): 1 2 3 4 5 6 7 8 9
Number of even numbers: 4
Number of odd numbers: 5
```

In [ ]: