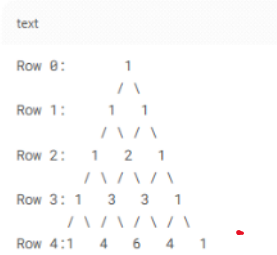
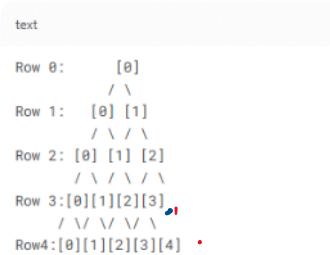


Visualization (for n=5):



Pascal's Triangle Index Structure



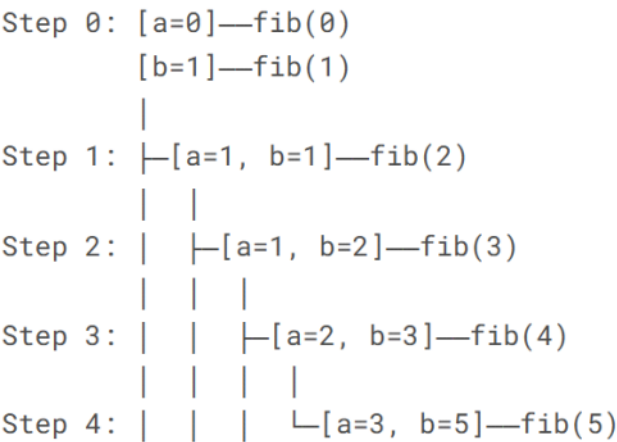
```
oldarr = [1]
triangle = [oldarr]

for (rowindex = 1; rowindex < 5; rowindex++):
    newarr = new array of size (rowindex + 1)

    for (col = 0; col <= rowindex; col++):
        if (col == 0 or col == rowindex):
            newarr[col] = 1
        else:
            newarr[col] = oldarr[col] + oldarr[col-1]

    triangle.append(newarr)
    oldarr = newarr
```

Fibonacci Series



```
FUNCTION fibonacci(n):
    IF n <= 0:
        RETURN "Invalid input" // Handle invalid cases
    ELSE IF n == 1:
        RETURN [0] // First term is 0
    ELSE IF n == 2:
        RETURN [0, 1] // First two terms

    sequence = [0, 1] // Initialize with first two terms

    FOR i FROM 2 TO n-1:
        next_term = sequence[i-1] + sequence[i-2]
        sequence.APPEND(next_term)

    RETURN sequence
```

0 1 1 2 3

Write

1
2
3
4
6
9
12
18