FIBONACCI GENERATOR

[19]:
```
def fibonacci_generator(n):
    a, b = 0, 1
    series = []
    for _ in range(n):
        series.append(a)
        a, b = b, a + b
    return series
terms = int(input("Enter number of terms: "))
print("Fibonacci Series:", fibonacci_generator(terms))
```

```
Enter number of terms:  7
Fibonacci Series: [0, 1, 1, 2, 3, 5, 8]
```

[48]:
```
import pandas as pd
# Generate Fibonacci numbers
fib = [0, 1]
for i in range(2, 10):
    fib.append(fib[i-1] + fib[i-2])
# Create DataFrame
df = pd.DataFrame(fib, columns=["Fibonacci Numbers"])
print(df)
print("\nMaximum value:", df["Fibonacci Numbers"].max())
```

```
   Fibonacci Numbers
0                  0
1                  1
2                  1
3                  2
4                  3
5                  5
6                  8
7                 13
8                 21
9                 34

Maximum value: 34
```

[34]:
```
pip install django
```

```
Collecting django
  Downloading django-6.0.1-py3-none-any.whl.metadata (3.9 kB)
Collecting asgiref>=3.9.1 (from django)
  Downloading asgiref-3.11.0-py3-none-any.whl.metadata (9.3 kB)
Collecting sqlparse>=0.5.0 (from django)
  Downloading sqlparse-0.5.5-py3-none-any.whl.metadata (4.7 kB)
Requirement already satisfied: tzdata in c:\users\wakch\anaconda3\lib\site-packages (from django) (2023.3)
Downloading django-6.0.1-py3-none-any.whl (8.3 MB)
   ---------------------------------------- 0.0/8.3 MB ? eta -:--:--
   ---------- ----------------------------- 2.1/8.3 MB 10.7 MB/s eta 0:00:01
   ------------------ --------------------- 3.9/8.3 MB 10.7 MB/s eta 0:00:01
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   ------------------------------ --------- 6.3/8.3 MB 7.6 MB/s eta 0:00:01
   ---------------------------------- ----- 7.6/8.3 MB 7.3 MB/s eta 0:00:01
   ---------------------------------------- 8.3/8.3 MB 7.3 MB/s eta 0:00:00
Downloading asgiref-3.11.0-py3-none-any.whl (24 kB)
Downloading sqlparse-0.5.5-py3-none-any.whl (46 kB)
Installing collected packages: sqlparse, asgiref, django
Successfully installed asgiref-3.11.0 django-6.0.1 sqlparse-0.5.5
Note: you may need to restart the kernel to use updated packages.
```

[44]:
```
from django.http import HttpResponse
def fibonacci_view(request):
    a, b = 0, 1
    series = []
    for i in range(10):
        series.append(str(a))
        a, b = b, a + b
    return HttpResponse("Fibonacci Series: " + ", ".join(series))
```

[46]:
```
def fibonacci(n):
    if n <= 1:
        return n
    return fibonacci(n-1) + fibonacci(n-2)
for i in range(7):
    print(fibonacci(i), end=" ")
```

```
0 1 1 2 3 5 8
```