2.3.2 Example: Factorial Function

Example 2.4 : Factorial Function.

The factorial of a number n is defined as:

$$n! = \begin{cases} 1 & \text{if } n = 0, \\ n \cdot (n-1)! & \text{if } n > 0. \end{cases}$$

2.3.3 Exercise: Implement Recursive Factorial

Exercise 2.3. *Implement the factorial function in Python using recursion.*

2.3.4 Python Code Snippet: Recursive Factorial

Code Snippet 2.2 : Recursive Factorial in Python.

```python
def factorial(n):
    if n == 0:
        return 1
    else:
        return n * factorial(n-1)

# Example usage
n = 5
print(f"Factorial of {n} is {factorial(n)}")
```

Example 2.5 : Recursion Call Stack.