Classroom Assignment <9>: Online Shopping Bill Calculator

Learning Objective:

The learning objective of this assignment is to practice defining and calling functions with **positional arguments** and **keyword arguments** in Python. Learners will calculate the final bill for an order including optional charges.

Expected Completion Time:

Best Case: 20 minutes
Average Case: 25 minutes

Assignment Details:

Write a Python program that calculates the total bill in an online shopping cart using a function.

1. Define a function `calculate_bill(item_cost, quantity, tax=0.05, discount=0)` where:
    - `item_cost` and `quantity` are **positional arguments**.
    - `tax` and `discount` are **keyword arguments** with default values.
2. Formula:
3. `total = (item_cost * quantity) + (item_cost * quantity * tax) - discount`
4. Call the function in the following ways:
    - With only positional arguments.
    - With positional + keyword arguments (e.g., custom tax or discount).

Requirements:

- Use both positional and keyword arguments in the function.
- Show at least 2–3 different calls demonstrating flexibility.
- Print the total bill for each case.

Hints to Solve:

```
def calculate_bill(item_cost, quantity, tax=0.05, discount=0):
    total = (item_cost * quantity) + (item_cost * quantity * tax) - discount
    return total

# Only positional
print("Bill 1:", calculate_bill(500, 2))

# With custom tax
print("Bill 2:", calculate_bill(500, 2, tax=0.1))

# With custom discount
print("Bill 3:", calculate_bill(500, 2, discount=50))

# With custom tax and discount
print("Bill 4:", calculate_bill(500, 2, tax=0.08, discount=100))
```

Expected Outcome:

- Bill 1: 1050.0
- Bill 2: 1100.0
- Bill 3: 1000.0
- Bill 4: 980.0