

OOPS in Python: Class Method vs Static Method

■ Class Method Example:

```
class Shape: shape_count = 0 def __init__(self, name): self.name = name
Shape.shape_count += 1 @classmethod def display_count(cls): print(f"Total
shapes created: {cls.shape_count}") circle = Shape("Circle") square =
Shape("Square") Shape.display_count() # Output: Total shapes created: 2
```

■ Static Method Example:

```
class MathOperations: @staticmethod def add(x, y): return x + y
@staticmethod def multiply(x, y): return x * y
print(MathOperations.add(10, 5)) # Output: 15
print(MathOperations.multiply(4, 3)) # Output: 12
```

■ Combining Both Class and Static Methods:

```
class Account: interest_rate = 0.05 def __init__(self, balance):
self.balance = balance @classmethod def set_interest_rate(cls, rate):
cls.interest_rate = rate @staticmethod def validate_amount(amount): return
amount > 0 Account.set_interest_rate(0.07) print(Account.interest_rate) #
Output: 0.07 print(Account.validate_amount(100)) # Output: True
print(Account.validate_amount(-50)) # Output: False
```