

# DATA SCIENCE COURSE TUTORIAL # 14

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## Logical Operators

Logical operators are used to combine conditional statements and return a Boolean value (**True** or **False**).

- **and** → Returns **True** if **both** conditions are true.
  - **or** → Returns **True** if **at least one** condition is true.
  - **not** → Reverses the result. If a condition is **True**, **not** makes it **False**.
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### Examples:

```
# AND operator
x = 5
print(x > 3 and x < 10)    # True (both conditions are true)

# OR operator
print(x > 3 or x > 10)     # True (one condition is true)

# NOT operator
print(not(x > 3 and x < 10)) # False (because the result of (x > 3 and x < 10) is True)
```