if / elif / else — The Full Picture

// IF — the basic decision

```
score = 85

if score >= 60:
    print("Passed.")    # runs
```

Condition True -> block runs. False -> skipped.

// IF / ELSE — both sides covered

```
if score >= 60:
    print("Passed.")
else:
    print("Failed.")    # fallback
```

One block always runs. Never both, never neither.

// ELIF — multiple conditions

```
if score >= 90:
    print("Excellent.")
elif score >= 70:
    print("Good.")    # first match wins
elif score >= 60:
    print("Passed.")
else:
    print("Failed.")
```

Top to bottom. First match wins. Most specific first.

// COMPARISON OPERATORS

```
if x == 10: # equal to
if x != 10: # not equal to
if x > 10: # greater than
if x < 10: # less than
if x >= 10: # greater than or equal
if x <= 10: # less than or equal
```

// LOGICAL OPERATORS

```
# and — both must be True
if window == 'y' and age >= 12:
    price += 3

# or — at least one must be True
if age < 12 or age >= 65:
    print("Discounted.")

# not — inverts the condition
if not age >= 18:
    print("Access denied.")
```

and / or / not — combine conditions in one line.

// STRINGS IN CONDITIONS

```
answer = input('Continue? (y/n): ')

# Wrong — fails if user types 'Y'
if answer == 'y':
    ...

# Right — normalize first
if answer.lower() == 'y':
    print("Continuing...")
```

Comparisons are case-sensitive. .lower() is your friend.

// += SHORTHAND

```
price = 12
price += 3     # same as price = price + 3
print(price)   # 15
```

price += 3 adds to the existing value.

// COMMON MISTAKES

```
! = assigns, == compares — never mix
! Every if / elif / else ends with :
! Indentation is syntax — always 4 spaces
! Most specific condition goes first
! Strings are case-sensitive — use .lower()
! else catches everything — know what that means
```