

CUSTOM ERRORS

Instead of creating new error types, just use **Python's built-in errors** with clear messages.

Invalid Age (Using ValueError)

```
def check_age(age):  
    if age < 18 or age > 60:  
        raise ValueError("Age must be between 18 and 60.")
```

```
check_age(15) # ❌ Error
```

Wrong Type (Using TypeError)

```
def divide(a, b):  
    if type(a) not in [int, float] or type(b) not in [int, float]:  
        raise TypeError("Both values must be numbers.")  
    if b == 0:  
        raise ZeroDivisionError("Cannot divide by zero.")  
    return a / b
```

```
divide(10, "2") # ❌ Error
```

Missing Key (Using KeyError)

```
prices = {"apple": 100, "banana": 50}
```

```
def get_price(item):  
    if item not in prices:  
        raise KeyError("Item not found in price list.")  
    return prices[item]
```

```
get_price("mango") # ✗ Error
```

Out of Range Index (Using IndexError)

```
my_list = [1, 2, 3]
```

```
def get_item(index):  
    if index >= len(my_list) or index < 0:  
        raise IndexError("Index out of range.")  
    return my_list[index]
```

```
get_item(5) # ✗ Error
```

Empty Data (Using RuntimeError)

```
def process_data(data):  
    if not data:  
        raise RuntimeError("No data provided.")  
    return "Processing done!"
```

```
process_data([]) # ❌ Error
```

Summary (Easy Rules)

- ✓ ValueError → Wrong number
- ✓ TypeError → Wrong type
- ✓ KeyError → Missing dictionary key
- ✓ IndexError → Wrong list index
- ✓ RuntimeError → Custom error