

Python Error Types for try-except Handling

Math & Type Errors

- ZeroDivisionError: Dividing by zero (e.g., 10 / 0)
- TypeError: Wrong type used (e.g., 'a' + 2)
- ValueError: Right type but bad value (e.g., int('abc'))
- OverflowError: Value too large to handle
- FloatingPointError: Floating-point calculation issue
- ArithmeticError: Base class for math-related errors

Name & Attribute Errors

- NameError: Using a variable that is not defined
- AttributeError: Calling an unknown method on an object
- UnboundLocalError: Accessing local variable before assignment

Import & Module Errors

- ImportError: Import fails
- ModuleNotFoundError: Module does not exist

File & OS Errors

- FileNotFoundError: File does not exist
- PermissionError: No permission to read/write
- IsADirectoryError: File operation on a directory
- NotADirectoryError: Directory operation on a file
- OSError: General system error
- EOFError: Unexpected end of input

Data Structure Errors

- IndexError: Accessing index out of bounds
- KeyError: Missing key in dictionary
- StopIteration: No more elements in iterator

String & Unicode Errors

- `UnicodeError`: Unicode issue
- `UnicodeEncodeError`: Encoding error
- `UnicodeDecodeError`: Decoding error

Memory & Runtime Errors

- `MemoryError`: Out of memory
- `RuntimeError`: General runtime failure
- `RecursionError`: Too many recursive calls
- `AssertionError`: assert statement failed
- `SystemExit`: Raised by `sys.exit()`

Network & Library-Specific Errors

- `requests.exceptions.RequestException`: HTTP request failed
- `pandas.errors.EmptyDataError`: Empty file loaded in pandas
- `json.JSONDecodeError`: Malformed JSON
- `sqlite3.OperationalError`: Database operation failed
- `subprocess.CalledProcessError`: Shell command failed