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# General error handling
try:
    result = 10/0
except Exception as e:
    print(f"An error occurred {e}")

## Zero division error

## Value error

try:
    num = int("Hello")
except ValueError as e:
    print(f"Value error: {e}")

## TYPE ERROR

try:
    result = 10+ "Hello"
except TypeError as e:
    print(f"Type error: {e}")

## Index Error

# lst = [1,2,3]
# print(lst[5])

## Key Error

try:
    dictionary = {"a":1 , "b": 2}
    print(dictionary["c"])
except KeyError as e:
    print("Key doesnot exist")

## FILE NOT FOUND ERROR

try:
    with open("file.txt", "r") as file:
        content = file.read()
except FileNotFoundError as e:
    print(f"File Not FOUND ERROR {e}")
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##ATTRIBUTE ERROR
try:
    strng = "Hello"
    strng.append("World")
except AttributeError as e:
    print(f"{e}")

## IMPORT
try:
    import module1
except ImportError:
    print("Module not found")

## Assertion error
try:
    assert 5 > 10 , "Assertionfailed"
except AssertionError as e:
    print(f"Assertion error {e}")

try:
    num = int("Hello")
    result = 10/0
except (ValueError, ZeroDivisionError) as e:
    print(f"Error Occured {e}")
finally:
    pass

#### Custom exception #####
# User defined exception class and inherits from python's built in
Exception class

class CustomError(Exception):
    pass
try:

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    raise CustomError("This is a custom error")
except CustomError as e:
    print(f"Custom Error {e}")

class BankAccount:
    def __init__(self, account_holder, initial_balance):
        self.account_holder = account_holder
        self.balance = initial_balance

    def withdraw(self, amount):
        """Handles withdrawal with custom exception handling"""
        if amount <= 0:
            raise InvalidAmountException()

        if amount > self.balance:
            raise InsufficientFundsException(self.balance)

        self.balance -= amount
        print(f"Withdrawal successful! New balance:
${self.balance:.2f}")

    def get_balance(self):
        """Returns the current balance"""
        return self.balance

def main():
    account = BankAccount("John Doe", 500.00)

    try:
        amount = float(input("Enter withdrawal amount: "))
        account.withdraw(amount)
    except InvalidAmountException as e:
        print(f"Error: {e}")
    except InsufficientFundsException as e:
        print(f"Error: {e}")
    except Exception as e:
        print(f"An unexpected error occurred: {e}")
    finally:
        print("Thank you for using our banking system.")

if __name__ == "__main__":
    main()

```

