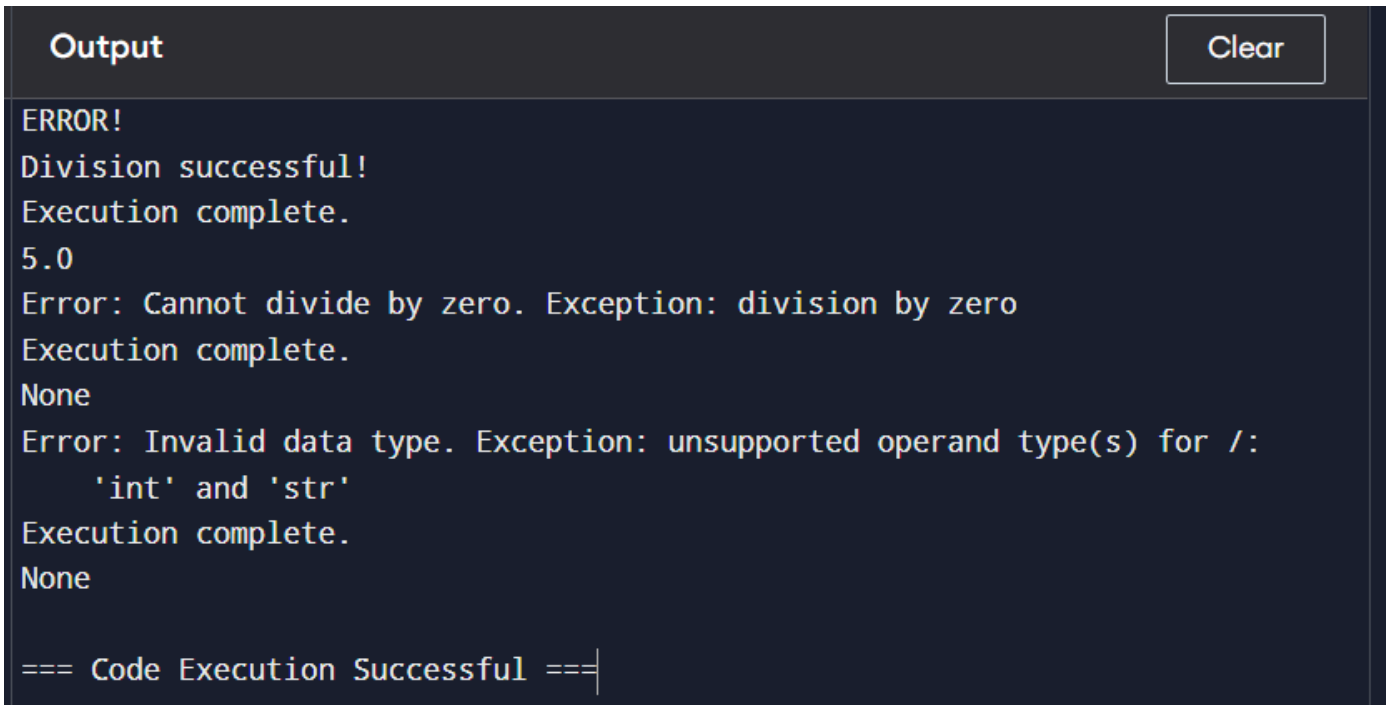
Assignment 10 : Write python program to handle Exceptions using Python Built-in Exceptions

SOURCE CODE :

```python
def divide_numbers(a, b):
    try:
        result = a / b
    except ZeroDivisionError as e:
        print(f"Error: Cannot divide by zero. Exception: {e}")
        return None
    except TypeError as e:
        print(f"Error: Invalid data type. Exception: {e}")
        return None
    except Exception as e:
        print(f"An unexpected error occurred: {e}")
        return None
    else:
        print("Division successful!")
        return result
    finally:
        print("Execution complete.")

# Test cases
print(divide_numbers(10, 2))   # Should print the result and a success message
print(divide_numbers(10, 0))   # Should handle division by zero
print(divide_numbers(10, "a")) # Should handle a type error
```

OUTPUT :


Output
Clear
ERROR!
Division successful!
Execution complete.
5.0
Error: Cannot divide by zero. Exception: division by zero
Execution complete.
None
Error: Invalid data type. Exception: unsupported operand type(s) for /:
'int' and 'str'
Execution complete.
None
=== Code Execution Successful ===