Project Documentation
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Index

Folder Summary
Overview
This codebase contains utilities for basic arithmetic operations and data processing. It includes simple functions
Architecture & Key Components
Based on the documentation files analyzed, the key components include:

hello_world(): A simple function that returns a greeting message
add_numbers(a, b): A function that adds two numeric values
Calculator class: A class that provides multiplication operations with history tracking

Data Flow & Workflow
The components work together to process numerical data:

Simple operations can be performed directly with functions like add_numbers()
For more complex operations with history tracking, the Calculator class is used
Results are returned immediately, and operations are stored in the calculator's history
The history can be retrieved using the get_history() method

How to Get Started (For New Developers)
To use this codebase:

For simple operations, import and use the standalone functions like add_numbers()
For operations with history tracking, create an instance of the Calculator class
Call methods like multiply() on the calculator instance
Retrieve the operation history using get_history()

Limitations & Possible Improvements
Current limitations include:

Limited to basic arithmetic operations (addition and multiplication)
History tracking grows unbounded and may consume memory over time
No advanced error handling for edge cases

Possible improvements:

Add more arithmetic operations (subtraction, division, etc.)
Implement history size limits or persistence
Add comprehensive error handling and input validation
Create more detailed documentation with usage examples

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Add Two Numbers
ID: test1.py_add_numbers
Signature: add_numbers(a, b)
Summary: Adds two numeric values and returns the result.
Description
This function accepts two arguments, a and b, and returns their sum. It assumes both inputs support the + opera
Example
result = add_numbers(2, 3)
print(result) # 5

Edge cases & Notes

Passing non-numeric types like strings or lists will raise a TypeError.
Very large integers may still work, but floating-point addition can introduce rounding errors.

Calculator Class
ID: test1.py_Calculator
Signature: Calculator()
Summary: A simple calculator class for basic arithmetic operations with history tracking.
Description
This class provides basic arithmetic operations, specifically multiplication, with built-in history tracking. When initi
Example
```
calc = Calculator()
result = calc.multiply(4, 5)
print(result)  # 20
print(calc.get_history())  # ['4 * 5 = 20']
```

Edge cases & Notes

Multiplying very large numbers may lead to overflow in some systems.
Non-numeric inputs will raise a TypeError during multiplication.
History grows unbounded with each operation, which could consume significant memory over time.

Hello World Function
ID: test1.py_hello_world
Signature: hello_world()
Summary: Returns a simple greeting message.
Description
This function is a basic implementation that returns the classic "Hello, World!" greeting. It takes no parameters ar
Example
greeting = hello_world()
print(greeting) # Output: Hello, World!

Edge cases & Notes

No edge cases - function always returns the same static string.
Function does not accept any parameters, so no type validation needed.

test_simple File
ID: test_simple
Signature: test_simple()
Summary: A file named test_simple.
Description
This file performs operations related to test_simple. The implementation details can be found in the source code.
Example
Example usage would depend on the specific file

Edge cases & Notes

General edge cases would depend on the specific implementation.