**Test Case Document**

**Title**: Validate factorial calculation with various inputs

**ID**: TC-001

**Description**: This test case verifies that the factorial calculator application handles different types of inputs correctly, including positive numbers, zero, and negative numbers.

**Preconditions**:

1. The Flask Factorial Calculator application is running at http://localhost:6464/factorial.
2. A web browser (e.g., Google Chrome) is installed and configured for testing.

**Test Coverage**

**Test Cases**:

1. **Test Case ID**: TC-001-01
   * **Title**: Validate factorial of a positive number
   * **Description**: Verify that the application correctly calculates the factorial of a positive number.
   * **Steps**:
     1. Open the web browser and navigate to http://localhost:6464/factorial.
     2. Enter the value 7 in the input field.
     3. Click the "Calculate" button.
     4. Verify the result is 5040.
   * **Expected Result**: The application displays the factorial of 7 as 5040.
   * **Status**: [To be filled after execution]
2. **Test Case ID**: TC-001-02
   * **Title**: Validate factorial of zero
   * **Description**: Verify that the application correctly calculates the factorial of zero.
   * **Steps**:
     1. Open the web browser and navigate to http://localhost:6464/factorial.
     2. Enter the value 0 in the input field.
     3. Click the "Calculate" button.
     4. Verify the result is 1.
   * **Expected Result**: The application displays the factorial of 0 as 1.
   * **Status**: [To be filled after execution]
3. **Test Case ID**: TC-001-03
   * **Title**: Validate factorial with negative number input
   * **Description**: Verify that the application handles negative number inputs by displaying an appropriate error message.
   * **Steps**:
     1. Open the web browser and navigate to http://localhost:6464/factorial.
     2. Enter the value -5 in the input field.
     3. Click the "Calculate" button.
     4. Verify the error message is displayed.
   * **Expected Result**: The application displays an error message: "Error: Factorial of a negative number is undefined".
   * **Status**: [To be filled after execution]
4. **Test Case ID**: TC-001-04
   * **Title**: Validate non-integer input
   * **Description**: Verify that the application handles non-integer inputs by displaying an appropriate error message.
   * **Steps**:
     1. Open the web browser and navigate to http://localhost:6464/factorial.
     2. Enter a non-integer value (e.g., 3.5 or abc) in the input field.
     3. Click the "Calculate" button.
     4. Verify the error message is displayed.
   * **Expected Result**: The application displays an error message indicating invalid input.
   * **Status**: [To be filled after execution]