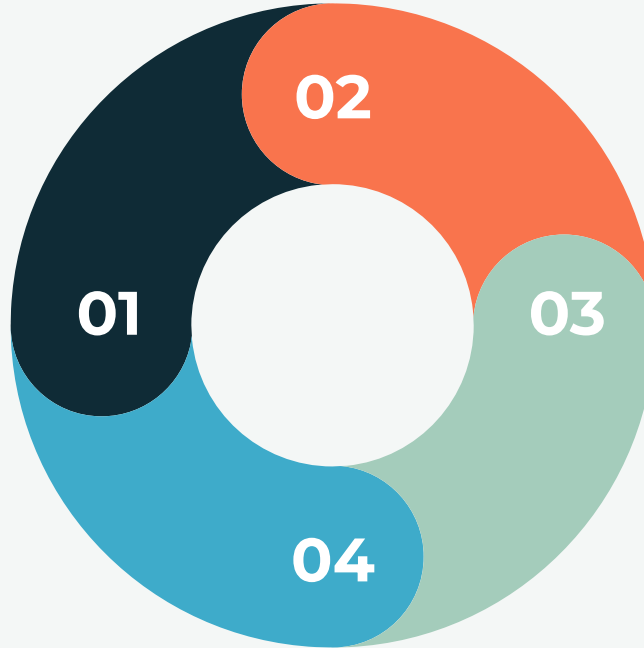# Online Calculator Project

This presentation provides a comprehensive overview of the Online Calculator project, including its structure, styling, and functionality.

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Project Overview

The Online Calculator is a simple web-based application designed to perform basic arithmetic operations.

Provides immediate feedback on invalid expressions.

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Supports addition, subtraction, multiplication, division, and parentheses for grouping.

Displays error messages in a user-friendly manner.

HTML Structure

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Online Calculator</title>
    <style>
        /* CSS styles are included here */
    </style>
</head>
<body>

    <div class="form-container">
        <div id="error-message" class="error-message"></div>
        <div class="header">
            <h3>Online Calculator</h3>
        </div>
        <form>
            <table>
                <tr>
                    <td colspan="5">
                        <input type="text" id="screen" readonly>
                    </td>
                </tr>
                <!-- Calculator buttons are included here -->
            </table>
        </form>
    </div>

    <script>
        /* JavaScript functions are included here */
    </script>

</body>
</html>
```

- Consists of a form containing a table to organize the calculator buttons.
- Includes a text input field to display entered values and results.

```
<style>
    body, html {
        height: 100%;
        margin: 0;
        display: flex;
        justify-content: center;
        align-items: center;
        background-color: #f0f0f0;
    }
    /* Style for form position */
    .form-container {
        background: white;
        padding: 20px;
        border-radius: 8px;
        box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
    }

    .header{
        text-align: center;
    }

    input[type="button"] {
        width: 100%;
        padding: 20px;
        font-size: 18px;
        margin: 5px;
        border-radius: 8px;
        border: 1px solid #ccc;
        background-color: #f9f9f9;
    }

    input[type="text"] {
        width: 90%;
        padding: 20px;
        font-size: 18px;
        margin-bottom: 10px;
        border-radius: 8px;
        border: 1px solid #ccc;
        text-align: right;
    }
    .error-message {
        color: red;
        border: 1px solid red;
        margin-bottom: 10px;
        display: none;
        padding: 5px;
        border-radius: 5px;
        background-color: #ffe6e6;
    }
</style>
```

CSS Styles

01 Applies rounded corners and a clear, user-friendly layout.

02 Centers the calculator on the page.

JavaScript Functions

01 Displays values, evaluates expressions, and clears the input.

02 Handles the main functionality of the calculator.

```
<script>
    function dis(val) {
        document.getElementById("error-message").style.display = 'none';
        document.getElementById("screen").value += val;
    }

    function solve() {
        let currentValue = document.getElementById("screen").value;
        try {
            let result = eval(currentValue);
            document.getElementById("screen").value = result;
        } catch (e) {
            document.getElementById("error-message").innerText = 'Invalid expression';
            document.getElementById("error-message").style.display = 'block';
        }
    }

    function clr() {
        document.getElementById("screen").value = "";
        document.getElementById("error-message").style.display = 'none';
    }
</script>
```
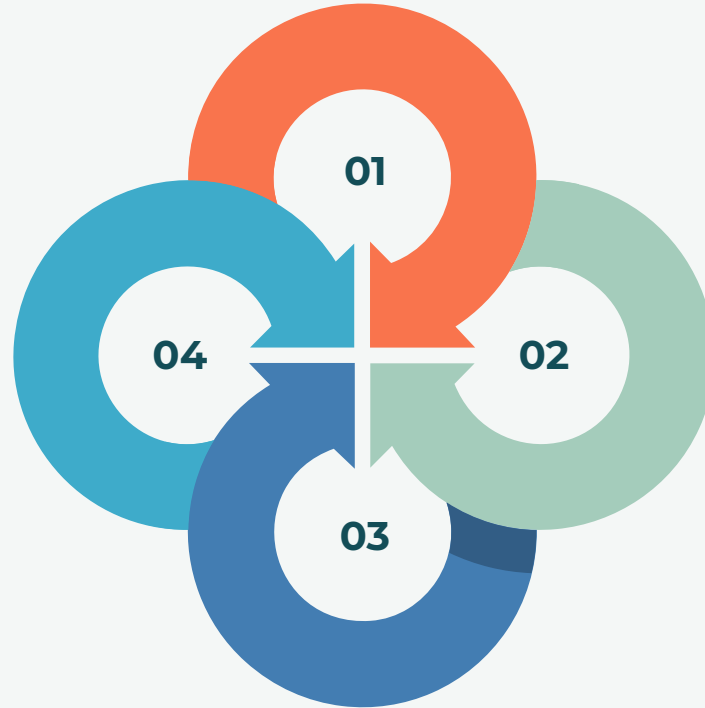
Key Features

Displays user-friendly error messages for invalid expressions.

Supports basic arithmetic operations: addition, subtraction, multiplication, and division.

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Responsive design: centered on the page and adapts to different screen sizes.
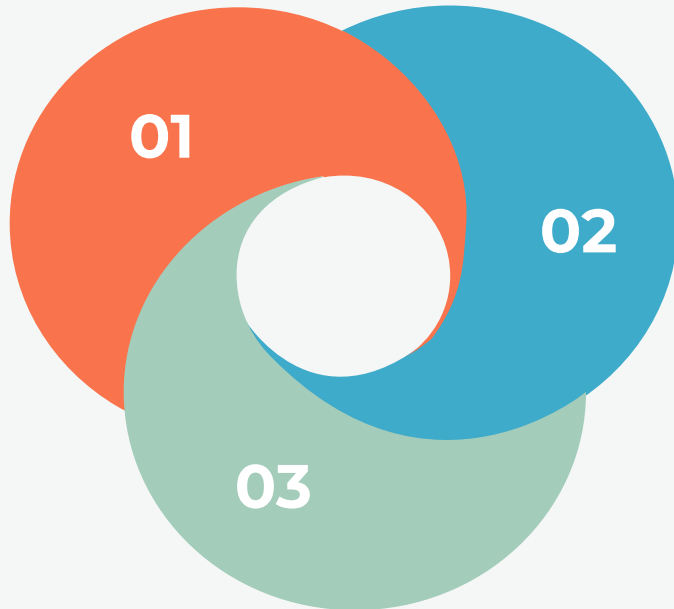
Allows grouping of expressions using parentheses.

How to Use

- Enter Values: Click the buttons to enter values and operations.
- Evaluate Expression: Click the = button to evaluate the expression.
- Clear Input: Click the Clear button to reset the input field.
- Error Handling: If the expression is invalid, an error message will be displayed.

Example Usage

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Simple Calculation: Enter 3 + 5 and click = to get 8.

Complex Calculation: Enter (2 + 3) * 4 and click = to get 20.

Clear Input: Click Clear to start a new calculation.

Conclusion

01   To learn more, refer to the project's code file.

02   The Online Calculator project provides a simple web-based calculator with basic arithmetic operations and error handling.

03   The calculator's responsive design and user-friendly layout ensure a smooth user experience.

Thank you for your time 😊