Tip calculator

Here's the updated summary:

Project Summary

I developed a tip calculator web application using HTML, CSS, and JavaScript. The app allows users to calculate tips based on a bill amount and tip percentage.

Output

When the user enters a bill amount, tip percentage, and number of people, the app calculates the total amount and amount per person. For example:

Bill Amount: \$100.00Tip Percentage: 15%Number of People: 4Round Tip: None

Output: Total Amount: \$115.00 | Amount per person: \$28.75

Key Features

- 1. Input validation: The app includes input validation to ensure users enter valid numbers for bill amount and number of people.
- 2. Error handling: The app handles errors well, displaying informative error messages to users.
- 3. Customizable tip percentages: The app allows users to choose from different tip percentages or enter a custom percentage.
- 4. Responsive design: The app is designed to work well on different devices.

Technical Details

- 1. Front-end development: The project uses front-end development technologies such as HTML, CSS, and JavaScript.
- 2. Client-side scripting: The app uses client-side scripting to handle user input and calculate tips.

Program

```
<!DOCTYPE html>
<html>
<head>
  <title>Tip Calculator</title>
  <tyle>
    body {
        font-family: Arial, sans-serif;
    }
    form {
        width: 50%;
        margin: 40px auto;
        padding: 20px;
        border: 1px solid #ccc;
        border-radius: 10px;
    }
```

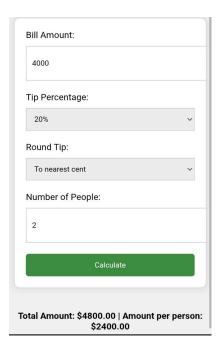
```
box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
  }
  label {
   display: block;
   margin-bottom: 10px;
  input[type="number"] {
   width: 100%;
   height: 40px;
   margin-bottom: 20px;
   padding: 10px;
   border: 1px solid #ccc;
  }
  select {
   width: 100%;
   height: 40px;
   margin-bottom: 20px;
   padding: 10px;
   border: 1px solid #ccc;
  }
  button {
   width: 100%;
   height: 40px;
   background-color: #4CAF50;
   color: #fff;
   padding: 10px;
   border: none;
   border-radius: 5px;
   cursor: pointer;
  }
  button:hover {
   background-color: #3e8e41;
  }
  #result {
   font-size: 24px;
   font-weight: bold;
   margin-top: 20px;
  }
  .error {
   color: red;
   font-size: 12px;
   margin-bottom: 10px;
 </style>
</head>
<body>
 <h1>Tip Calculator</h1>
 <form>
```

```
<label>Bill Amount:</label>
  <input type="number" id="bill-amount" step="0.01" min="0.01">
  <span id="bill-error" class="error"></span>
  <label>Tip Percentage:</label>
  <select id="tip-percentage">
    <option value="0.10">10%</option>
     <option value="0.15">15%</option>
     <option value="0.20">20%</option>
     <option value="custom">Custom</option>
  </select>
  <input type="number" id="custom-tip" style="display: none;" step="0.01" min="0">
  <span id="custom-tip-error" class="error"></span>
  <label>Round Tip:</label>
  <select id="round-tip">
    <option value="none">None</option>
     <option value="dollar">To nearest dollar
     <option value="cent">To nearest cent
  </select>
  <a href="mailto:</a> <a href="mailto:label">label</a> <a href="mailto:label">Number of People:</a> <a href="mailto://label">label</a> <a href="mailto:label">Number of People:</a> <a href="mailto:label">Iabel</a> <a href="mailto:label">Iabel<a href="m
  <input type="number" id="num-people" min="1">
  <span id="people-error" class="error"></span>
  <button id="calculate">Calculate</button>
  <button id="clear" type="reset">Clear</button>
</form>
<script>
  // JavaScript code to calculate tip and display result
  document.getElementById('calculate').addEventListener('click', function(event) {
    event.preventDefault();
    calculateTip();
 });
  function calculateTip() {
    const billAmount = parseFloat(document.getElementById('bill-amount').value);
    const numPeople = parseInt(document.getElementById('num-people').value);
    let tipPercentage;
    if (document.getElementById('tip-percentage').value === 'custom') {
       tipPercentage = parseFloat(document.getElementById('custom-tip').value) / 100;
    } else {
       tipPercentage = parseFloat(document.getElementById('tip-percentage').value);
    }
    const roundTip = document.getElementById('round-tip').value;
    const tip = billAmount * tipPercentage;
    let totalAmount;
    if (roundTip === 'dollar') {
```

```
totalAmount = billAmount + Math.round(tip);
} else if (roundTip === 'cent') {
    totalAmount = billAmount + Math.round(tip * 100) / 100;
} else {
    totalAmount = billAmount + tip;
}

const amountPerPerson = totalAmount / numPeople;
    document.getElementById('result').innerText = `Total Amount: $${totalAmount.toFixed(2)}
| Amount per person:
```

Sample output



Project Outcome

- 1. Functional tip calculator: The app is a functional tip calculator that accurately calculates tips based on user input.
- 2. User-friendly interface: The app has a user-friendly interface that makes it easy for users to enter information and calculate tips.
- 3. Error handling: The app handles errors well, displaying informative error messages to users.
- 4. Customizable tip percentages: The app allows users to choose from different tip percentages or enter a custom percentage.