

MACHINE PROBLEM - 4

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TW24 | BSIT-WMA

CREATE:

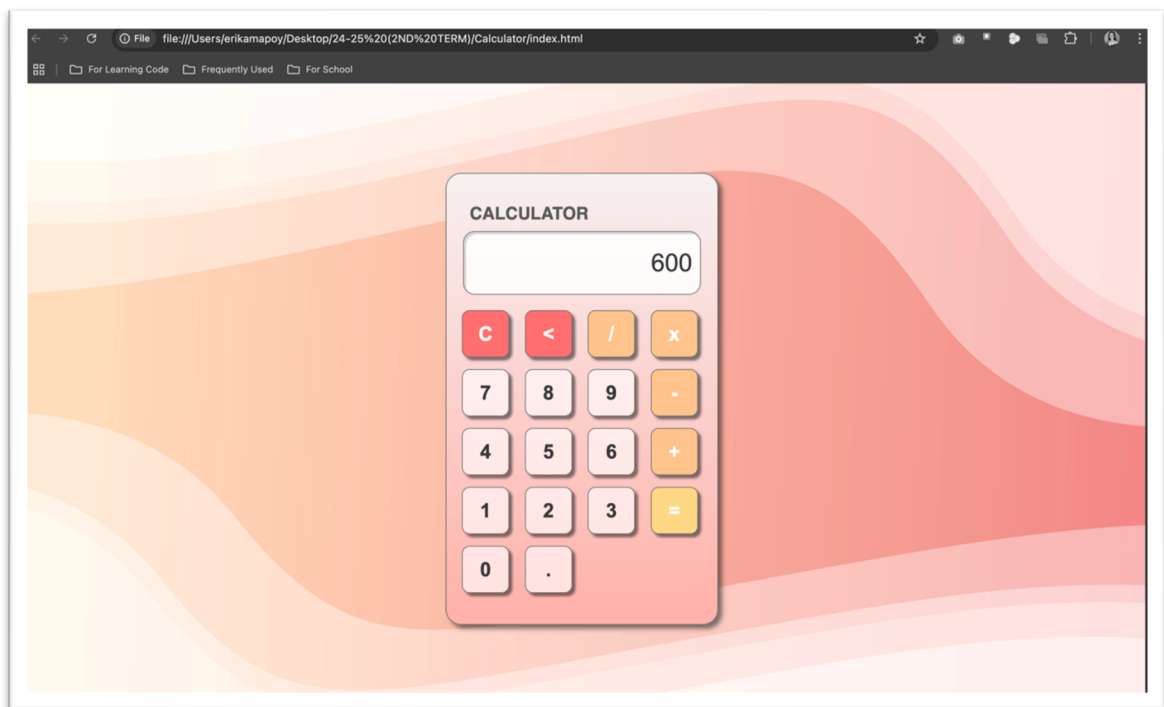
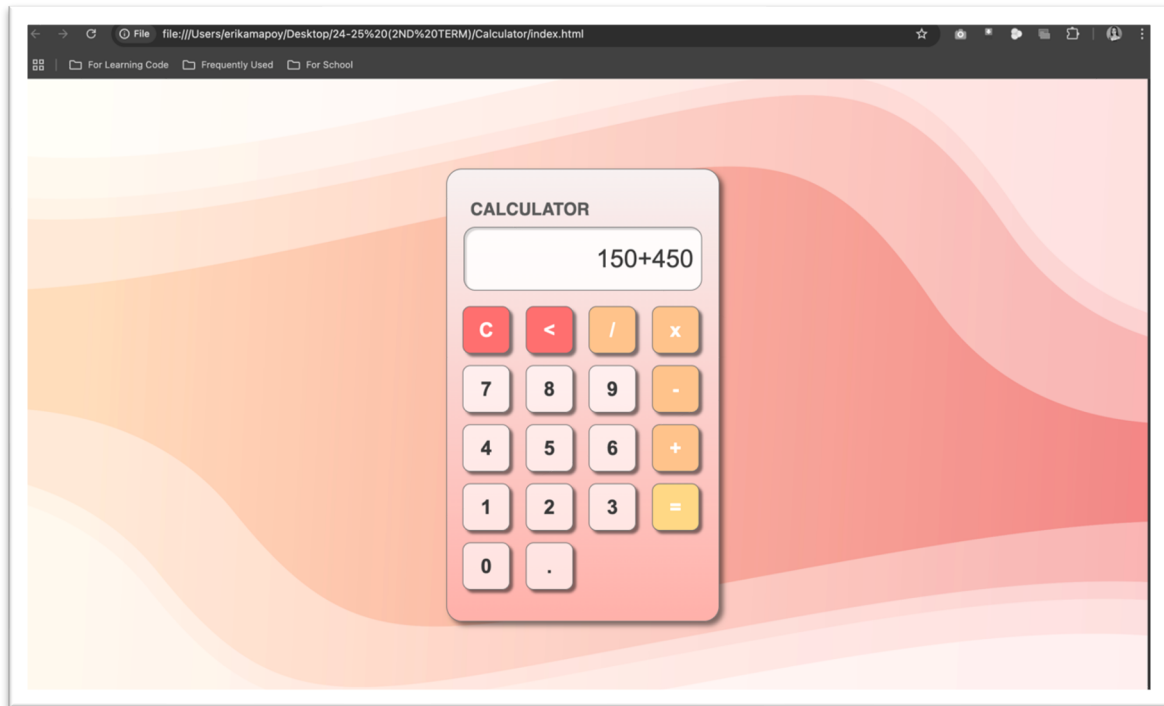
In order to assess your technical skills, this task was given to a student who is taking up the subject Advance Web Design. The output must be similar (use the video clip as your reference).

REQUIREMENTS:

The student must be able to produce / display:

1. Calculator with basic functionalities: Addition, Subtraction, Multiplication and Division.
 - a. In 1 (one) web page only
 - b. HTML, CSS and JavaScript must be used (and other programming concepts).
 - c. The design of the calculator must be similar to the sample video clip. (You may change the color of the Background, fonts, and designs, but must retain the design of the Calculator's layout).
2. Applying best practice in programming and proper folder and naming conventions. (Everything must be organized and proper, like usage of external files applying other best practices for Design and Programming must be used at all).
3. Applying everything you have learned from previous Course together with this current Course.

ADDITION



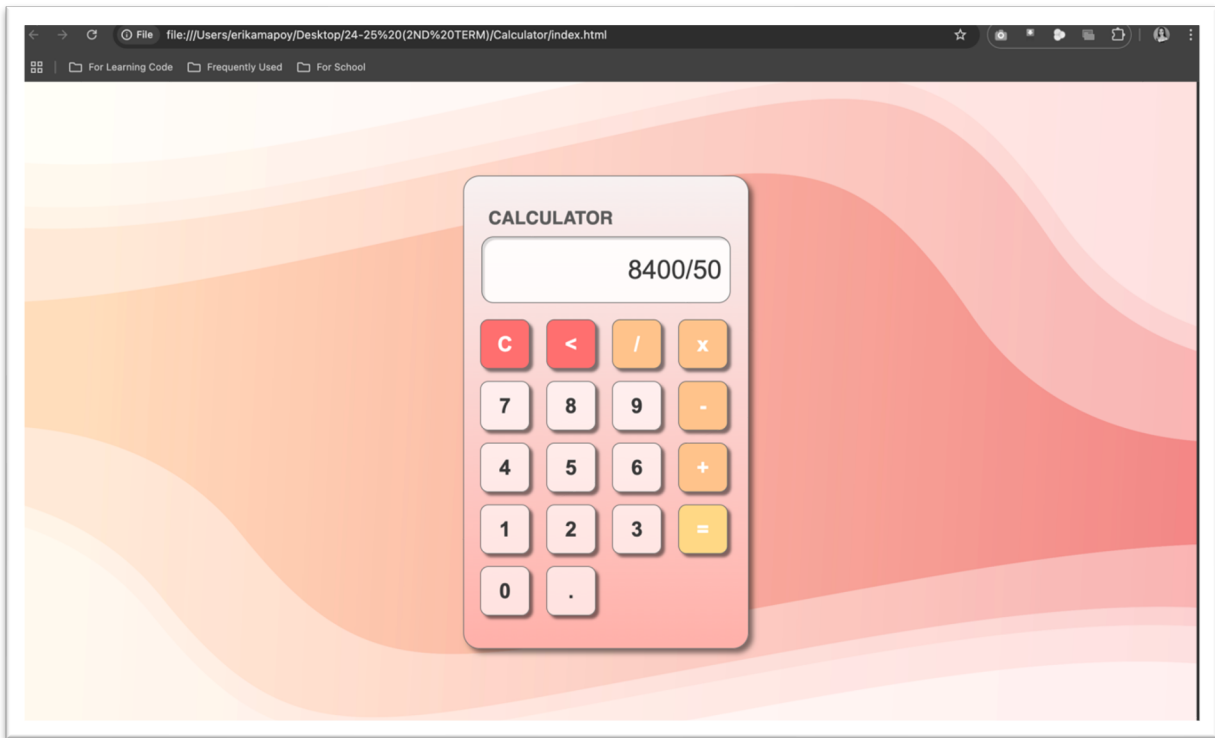
SUBTRACTION



MULTIPLICATION



DIVISION



HTML CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Calculator</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <div class="calculator">
    <h2>CALCULATOR</h2>
    <input type="text" id="display" disabled>
    <div class="buttons">
      <button class="reset" onclick="clearDisplay()">C</button>
      <button class="del" onclick="deleteLast()">&lt;</button>
      <button class="operator" onclick="appendToDisplay('/')">/</button>
      <button class="operator" onclick="appendToDisplay('*')">x</button>

      <button onclick="appendToDisplay('7')">7</button>
      <button onclick="appendToDisplay('8')">8</button>
      <button onclick="appendToDisplay('9')">9</button>
      <button class="operator" onclick="appendToDisplay('-')">-</button>

      <button onclick="appendToDisplay('4')">4</button>
      <button onclick="appendToDisplay('5')">5</button>
      <button onclick="appendToDisplay('6')">6</button>
      <button class="operator" onclick="appendToDisplay('+')">+</button>

      <button onclick="appendToDisplay('1')">1</button>
      <button onclick="appendToDisplay('2')">2</button>
      <button onclick="appendToDisplay('3')">3</button>
      <button class="equals" onclick="calculateResult()">=</button>

      <button onclick="appendToDisplay('0')">0</button>
      <button onclick="appendToDisplay('.')">.</button>
    </div>
  </div>

  <script src="script.js"></script>
</body>
</html>
```

CSS CODE:

```
body {
  display: flex;
  justify-content: center;
  align-items: center;
  height: 100vh;
  background: url('background.jpg') no-repeat center center fixed;
  background-size: cover;
  font-family: 'Poppins', sans-serif;
}

.calculator {
  background: linear-gradient(to top, #feada6 0%, #f5efef 100%);
  padding: 20px;
  border-radius: 20px;
  border: 1px solid #6a6a6a;
  box-shadow: 5px 5px 6px rgba(0, 0, 0, 0.5);
  text-align: center;
  width: 310px;
  display: flex;
  flex-direction: column;
  align-items: center;
}

h2 {
  font-size: 1.4rem;
  color: #555;
  margin-bottom: 10px;
  align-self: flex-start;
  padding-left: 10px;
}

#display {
  width: 92%;
  height: 60px;
  font-size: 2rem;
  text-align: right;
  padding: 10px;
  border-radius: 15px;
  border: none;
  background: rgba(255, 255, 255, 0.8);
  color: #333;
  outline: none;
  box-shadow: inset 3px 3px 1px rgba(0, 0, 0, 0.15);
  border: 1px solid #6a6a6a;
}
```

```
.buttons {
  display: grid;
  grid-template-columns: repeat(4, 1fr);
  gap: 15px;
  padding: 20px;
  width: 100%;
}

button {
  width: 61px;
  height: 61px;
  font-size: 1.6rem;
  border: none;
  border-radius: 10px;
  cursor: pointer;
  background: rgba(255, 255, 255, 0.6);
  color: #333;
  font-weight: bold;
  box-shadow: 4px 4px 3px rgba(0, 0, 0, 0.5);
  transition: all 0.2s ease-in-out;
  border: 1px solid #6a6a6a;
}

button:hover {
  transform: translateY(5px);
  box-shadow: 2px 2px 1px rgba(0, 0, 0, 0.2);
}

.number:hover {
  background: #666;
  color: white;
}

.operator {
  background: #fec187;
  color: white;
}

.operator:hover {
  background: #ff9d42;
}

.del, .reset {
  background: #FF6B6B;
  color: white;
}

.del:hover, .reset:hover {
```



```
        background: #E63946;
    }

    .equals {
        background: #ffd581;
        color: white;
    }

    .equals:hover {
        background: #ffc041;
    }
}
```

JAVASCRIPT:

```
function appendToDisplay(value) {
    document.getElementById("display").value += value;
}

function clearDisplay() {
    document.getElementById("display").value = "";
}

function deleteLast() {
    let current = document.getElementById("display").value;
    document.getElementById("display").value = current.slice(0, -1);
}

function calculateResult() {
    try {
        document.getElementById("display").value =
eval(document.getElementById("display").value);
    } catch {
        document.getElementById("display").value = "Error";
    }
}
```

RUBRIC

COMPONENTS	5	4	3 - 2	1	TOTAL
Aesthetics	The web site has been an exceptionally attractive and usable layout. White space, alignment are used effectively to organize material.	The web site have been attractive and usable layout. It is easy to locate all important elements.	The web site have a usable layout, but may appear busy or boring. It is easy to locate most of the important elements.	The web site are cluttered looking or confusing. It is often difficult to locate important elements.	
Content	The web site has a well –stated clear purpose and theme that is carried out throughout the site	The web site has a clearly stated purpose and theme, but may have one or two elements that do not seem to be related to it.	The purpose and theme of the web site is somewhat muddy or vague.	The web site lacks a purpose and theme.	
Requirements	All information provided by the student on the web site is accurate and all the requirements of the assignment/tasks have been met.	Almost all information provided by the student on the web site is accurate and all requirements of the tasks have been met.	Almost all of the information on the web site is accurate and almost all requirements have been met.	There are several inaccurate in the provided information or many of the requirements were not met.	