PRACTICAL – 2

AIM: 2.1. Design an user interface for assigning a grade to students based on the subjects marks

2.2. Design an User interface for printing the numbers in a) Ascending order b) Descending order c) Subtraction

- **Code:**

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Grade</title>
    <style>
      * {
        box-sizing: border-box;
        padding: 0;
        margin: 0;
        font-family: "Times New Roman", Times, serif;
      }
      html {
        width: 100%;
        height: 100%;
        background: linear-gradient(#e66465, #9198e5, rgb(1, 59, 250));
        background-repeat: no-repeat;
      }
      #box {
        display: flex;
        justify-content: center;
        align-items: center;
        align-content: center;
        flex-direction: column;
        width: 40%;
        height: 60%;
        background-color: white;
        position: absolute;
        top: 50%;
        left: 50%;
        transform: translate(-50%, -50%);
        border: none;
        z-index: 999;
        border-radius: 18px;
        background-color: rgba(255, 255, 255, 0.479);
        box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
        backdrop-filter: blur(10px);
      }
      input[type="text"] {
        width: 200px;
        text-align: center;
        height: 25px;
        padding: 0.5rem;
        margin: 0.5rem 0.25rem;
        font-size: 1.1rem;
        border-radius: 8px;
        border: 1.5px solid #a777e3;
```

```
      outline-color: #6e8efb;
    }
    button {
      padding: 0.55rem 1.5rem;
      margin: 0.5rem 0.5rem 1rem 0.5rem;
      font-size: 1.3rem;
      border: none;
      border-radius: 12px;
      background-color: #6e8efb;
      color: white;
      cursor: pointer;
      transition: background-color 0.3s ease;
    }
    button:hover {
      background-color: #a777e3;
    }
    #result {
      display: block;
      font-size: 1.5rem;
      font-weight: 600;
      color: #4a2c9f;
      min-height: 2em;
      margin-top: 0.5rem;
    }
    .header_text {
      color: black;
      font-size: 18px;
      font-weight: 600;
      margin: 10px 0px;
    }
  </style>
 </head>
 <body>
  <div id="box">
   <label for="marks" class="header_text"> Enter Marks to see your grade</label>
   <input type="text" id="marks" name="marks" placeholder="Enter Grade" />
   <label id="result"></label>
   <label for="num" class="header_text"> Enter numbers in comma seprated to see Ascending order and
Descending order</label>
   <input type="text" id="num" name="num" placeholder="Enter number" />
   <label id="result2"></label>
   <label id="result3"></label>
   <label for="num2" class="header_text"> Enter Two numbers to perform subtraction </label>
   <div>
    <input type="text" id="num2" name="num2" placeholder="Enter first operand" />
    <input type="text" id="num3" name="num3" placeholder="Enter second operand" />
   </div>
   <label id="result4"></label>
   <button id="subtraction">Subtraction</button>
  </div>
  <script>
   let inp_grade = document.getElementById("marks");
   let result = document.getElementById("result");
   let inp_num = document.getElementById("num");
   let result2 = document.getElementById("result2");
   let result3 = document.getElementById("result3");
   let inp_num2 = document.getElementById("num2");
   let inp_num3 = document.getElementById("num3");
```

```
let result4 = document.getElementById("result4");
let subtraction = document.getElementById("subtraction");
subtraction.addEventListener("click", function () {
  let num1 = Number(inp_num2.value);
  let num2 = Number(inp_num3.value);
  if (isNaN(num1) || isNaN(num2)) {  result4.textContent = "Please enter valid numbers."; }
  else { result4.textContent = "Subtraction Result: " + (num1 - num2); }
});
inp_num.addEventListener("input", function () {
  let numbers = inp_num.value.split(",").map(Number);
  if (numbers.some(isNaN)) {
    result2.textContent = "Please enter valid numbers.";
    result3.textContent = "";
  } else {
    let asc = [...numbers].sort((a, b) => a - b);
    let desc = [...numbers].sort((a, b) => b - a);
    result2.textContent = "Ascending Order: " + asc.join(", ");
    result3.textContent = "Descending Order: " + desc.join(", ");
  }
});
inp_grade.addEventListener("input", function () {
  let grade = Number(inp_grade.value);
  if (grade >= 80 && grade <= 100) {
    result.textContent = "Grade is A";
  } else if (grade >= 70 && grade < 80) {
    result.textContent = "Grade is B";
  } else if (grade >= 60 && grade < 70) {
    result.textContent = "Grade is C";
  } else if (grade >= 50 && grade < 60) {
    result.textContent = "Grade is D";
  } else if (grade >= 0 && grade < 50) {
    result.textContent = "Grade is F";
  } else {
    result.textContent = "";
  }
});
</script>
</body>
</html>
```

- **Output:**