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OF  
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**DEPARTMENT : B.TECH(IT)**

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**ROLL NO : 922223205043**

**DATE : 23/10/2025**

**Completed The Project Named As**

**PHASE 5**

**NAME : IBM-NJ-STUDENT GRADING SYSTEM**

**SUBMITTED BY,**

**NAME : SARAN S**

**MOBILE NO : 6385375606**

# **Project Demonstration & Documentation**

## **Title: Student Grading System**

### *1. Final Demo Walkthrough*

**A complete walkthrough of the Student Grading System.**

**Show all key features: student registration, grade entry, grade calculation, report generation, etc.**

**Include a live demonstration or a video recording link (if applicable).**

**Mention technologies used (e.g., frontend, backend, database).**

**Highlight user roles (Admin, Teacher, Student)**

### *2. Project Report*

**Introduction: Brief overview of the project and its purpose.**

**Objective: What the system aims to solve (automated grading, result management, etc.).**

**Technology Stack: Tools and frameworks used (e.g., React, Node.js, MySQL).**

**System Architecture: High-level design or architecture diagram.**

**Features: List and explanation of all major features.**

**Conclusion: Summary of outcomes and future improvements.**

## *Program*

```
<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<title>Student Grading System</title>

<style>

body {

background-image:url("https://media.istockphoto.com/id/172413295/photo/an-up-
close-picture-of-report-card?
grades.jpg?s=612x612&w=0&k=20&c=d95S74oUPLZA98yn6QKG0-
6OEbgAqgroKzQWH5GxwKA=");

background-size: cover;

font-family: Arial, sans-serif;

padding: 20px;

background-color: #f2f2f2;

align-items: center;justify-content: center;

}

.container {

background-color: #fff;

padding:50px;

border-radius: 10px;

max-width: 500px;
```

```
margin: auto;

box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

}

h2 {

text-align: center;

color: #333;

}

label {

display: block;

margin: 10px 0 5px;

}

input {

width: 100%;

padding: 8px;

margin-bottom: 15px;

border: 1px solid #ccc;border-radius: 5px;

}

button {

width: 100%;

padding: 10px;

background-color: #4CAF50;

color: white;

border: none;

border-radius: 5px;

cursor: pointer;
```

```
}

button:hover {

background-color:green;

}

.result {

margin-top: 20px;

font-weight: normal;

}

</style>

</head>

<body>

<div class="container">

<h2>Student Grading System</h2><label for="name">Student Name:</label>

<input type="text" id="name" placeholder="Enter student name">

<label for="subject1">Subject 1 Marks:</label>

<input type="number" id="subject1" placeholder="Enter marks out of 100">

<label for="subject2">Subject 2 Marks:</label>

<input type="number" id="subject2" placeholder="Enter marks out of 100">

<label for="subject3">Subject 3 Marks:</label>

<input type="number" id="subject3" placeholder="Enter marks out of 100">

<label for="subject4">Subject 4 Marks:</label>

<input type="number" id="subject4" placeholder="Enter marks out of 100">

<label for="subject5">Subject 5 Marks:</label>

<input type="number" id="subject5" placeholder="Enter marks out of 100">
```

```
<button onclick="calculateGrade()">Calculate Grade</button>

<div class="result" id="result"></div>

</div>

<script>

function calculateGrade() {

  const name = document.getElementById('name').value.trim();const subjects
  = [

    parseFloat(document.getElementById('subject1').value),
    parseFloat(document.getElementById('subject2').value),
    parseFloat(document.getElementById('subject3').value),
    parseFloat(document.getElementById('subject4').value),
    parseFloat(document.getElementById('subject5').value)
  ];

  const resultDiv = document.getElementById('result');

  // Validation

  if (!name || subjects.some(mark => isNaN(mark) || mark < 0 || mark > 100)) {

    resultDiv.innerHTML = "⚠ Please enter a valid name and marks (0-100) for all
    subjects.";

    resultDiv.style.color = 'red';

    return;

  }

  const total = subjects.reduce((sum, mark) => sum + mark, 0);

  const average = total / subjects.length;

  let grade;

  if (average >= 90) grade = 'A+';
```

```
else if (average >= 80) grade = 'A';
else if (average >= 70) grade = 'B';
else if (average >= 60) grade = 'C';
else if (average >= 50) grade = 'D';
else grade = 'F';resultDiv.style.color = 'black';

resultDiv.innerHTML = `
<strong>${name}</strong><br>
Total Marks: ${total} / 500<br>
Average: ${average.toFixed(2)}<br>
Grade: <strong>${grade}</strong>
`;
}

</script>
</body>
</html>
```

### 3. Screenshots / API Documentation

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Student Grading System</title>
  <style>
    body {
      background-image: url("https://media.istockphoto.com/id/172413295/photo/");
      background-size: cover;
      font-family: Arial, sans-serif;
      padding: 20px;
      background-color: #f2f2f2;
      align-items: center;
      justify-content: center;
    }

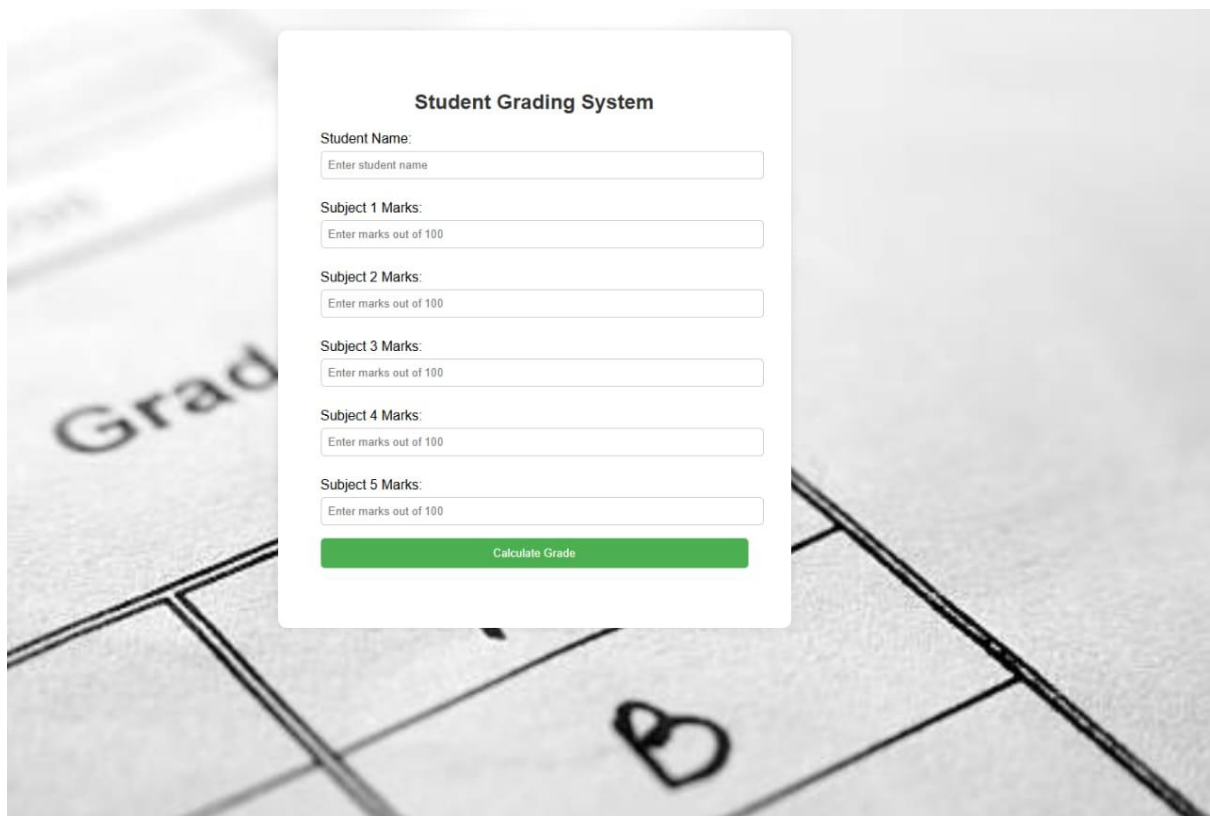
    .container {
      background-color: #fff;
      padding: 50px;
      border-radius: 10px;
      max-width: 500px;
      margin: auto;
      box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
    }

    h2 {
      text-align: center;
      color: #333;
    }

    label {
      display: block;
      margin: 10px 0 5px;
    }

    input {
      width: 100%;
      padding: 8px;
      margin-bottom: 15px;
      border: 1px solid #ccc;
      border-radius: 5px;
    }

    button {
      width: 100%;
      padding: 10px;
      background-color: #4CAF50;
      color: white;
    }
  </style>
</head>
<body>
  <div class="container">
    <h2>Student Grading System</h2>
    <div>
      <label>Student Name:</label>
      <input type="text" value="Enter student name">
    </div>
    <div>
      <label>Subject 1 Marks:</label>
      <input type="text" value="Enter marks out of 100">
    </div>
    <div>
      <label>Subject 2 Marks:</label>
      <input type="text" value="Enter marks out of 100">
    </div>
    <div>
      <label>Subject 3 Marks:</label>
      <input type="text" value="Enter marks out of 100">
    </div>
    <div>
      <label>Subject 4 Marks:</label>
      <input type="text" value="Enter marks out of 100">
    </div>
    <div>
      <label>Subject 5 Marks:</label>
      <input type="text" value="Enter marks out of 100">
    </div>
    <button type="button" value="Calculate Grade">
  </div>
</body>
</html>
```



**Student Grading System**

Student Name:

Subject 1 Marks:

Subject 2 Marks:

Subject 3 Marks:

Subject 4 Marks:

Subject 5 Marks:



## **4. Challenges & Solutions**

**Challenge 1: Handling dynamic grading scales**

**Solution:** Created a flexible grading logic with configurable rules.

**Challenge 2: Securing student data**

**Solution:** Implemented JWT authentication and hashed passwords.

**Challenge 3: Deploying with database connectivity**

**Solution:** Used environment variables and cloud database (e.g., MongoDB

Atlas / Firebase / Railway).

## **5.Hithub README**

<https://github.com/Saransenthilkumar06/Project.git>

## **6.Final Submission**

<https://github.com/Saransenthilkumar06/Project.git>