Scope of Work (SOW)

Demo Project for ASP.NET Developer

Project Title:

Student Registration and Report Generation System with Login and CAPTCHA

Objective:

To assess the candidate's practical understanding of ASP.NET development, authentication implementation, form validation, data management, and dynamic report generation.

Project Overview:

The candidate is required to develop a web-based application in **ASP.NET** (Core or Framework as per choice) using **C# / Vb.Net**, with the following major components:

1. Login Page with CAPTCHA Verification
2. Student Registration Form
3. Validation Rules (Server-Side and Client-Side)
4. Report Generation based on specified logic

Modules and Functional Requirements:

1. Login Page with CAPTCHA

- A simple login page with username and password fields.
- CAPTCHA: Generate a **random 6-character alphanumeric CAPTCHA** (e.g., X7P2Z1).
- CAPTCHA should include both **upper/lowercase alphabets and numbers**.
- CAPTCHA should **refresh** on page reload or click on a refresh icon.
- User must enter the CAPTCHA correctly to log in.
- Hardcoded credentials can be used (e.g., admin/admin123) for demo purposes.

2. Student Registration Form

After successful login, the user should land on a form that allows registration of a student.

Form Fields:

Field Name	Type	Validation Requirements
Class	Dropdown	Values from **I to X** only
Roll Number	Numeric	Must not exceed **60**
Student Name	Text	Required
Age	Numeric	Must be **less than 18 years**
Gender	Radio Button	M/F/O
Address	Text Area	Required

Behavior:

- Form should validate inputs both **on client side** and **server side (C# / VB.Net)**.
- Submitted data should be **stored in a local database table**.
- Handle duplicate **Class + Roll Number** combinations (should be unique).

3. Report Generation Page

- Display all saved student records in a **report format**.
- **Group the report by Class** with each class starting on a **new page (page break)**.
- **Within each class**, list students **ordered by Roll Number**.
- Report must include:

School Name

Class Name -   **Date –**

Roll No.	Student Name	Age	Gender (Male / Female / Other)	Address

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Report Format Options:

- Can be an **HTML printable page** or A **Crystal Report / SSRS / PDF Report** (optional bonus)

Technical Requirements:

- Platform: ASP.NET Core or ASP.NET Web Forms/MVC (C# / VB.Net)
- Database: **MS Access**
- Frontend: Bootstrap, HTML/CSS/JavaScript
- Validation: JavaScript/jQuery (optional), C# / Vb.Net server-side
- CAPTCHA: Random alphanumeric with auto-refresh feature

Expected Deliverables:

- Complete source code (in ZIP or GitHub link)
- Instructions to run the project, documentation of Project with Screenshot & Report