### ****Introduction****

The **Smart Tutor Web Application** is a role-based tutoring management system that enables students to register, find and enroll in courses, and attend sessions conducted by tutors. Administrators manage user roles, monitor attendance, and maintain platform integrity. The system supports user authentication, course-tutor mapping, session tracking, and review mechanisms.

### ****Objectives****

* To develop a **data-driven web application** for managing tutoring sessions
* Implement **role-based access control** for Students, Tutors, and Admins.
* Provide features like **course enrollment**, **attendance tracking**, and **feedback**.
* Ensure **data security** through encrypted credentials and access validation.
* Maintain user state using **session management** in ASP.NET.

### ****Target Users****

### **Students**: Can register, log in, view courses, attend sessions, and provide reviews.

### **Tutors**: Can register, offer courses, manage sessions, and view feedback.

### **Administrators**: Can monitor platform activities, manage users, and update records

* **Frontend**: ASP.NET Web Forms with HTML, CSS
* **Backend**: VB.NET (.NET Framework)
* **Database**: Microsoft SQL Server
* **Security**: SHA-256 for password hashing
* **State Management**: ASP.NET Session variables
* **Hosting**: Localhost (Visual Studio) – planned for web hosting

### ****Key Functionalities****

* User Registration and Login
* Role-based Dashboards
* Course Management (Enroll, View, Assign
* Attendance Recording and Updating
* Feedback and Ratings
* Secure Session Handling

### ****Data Security and Validation****

* SHA-256 password encryption
* SQL parameterized queries (to prevent injection)
* Server-side and client-side validation on forms