**Assignment 03**

**Developing an Event Management Application with Real-Time Updates using ASP.NET and SignalR**

**Introduction**

This assignment involves developing a web application for event management with real-time updates using SignalR, aimed at providing a versatile system for creating, viewing, editing, and deleting events. It includes user management, event registration, and statistical reporting features. Technical requirements specify the use of ASP.NET, Entity Framework Core, and SQL Server for database and application logic. The application emphasizes user-friendly interface design, data security, and real-time user-system interactions.

**Assignment Objectives**

In this assignment, you will:

Use the Visual Studio.NET to create ASP.NET MVC project.

Perform CRUD actions using Entity Framework Core combined with Real-Time Communication with SignalR.

Apply to validate data type for all fields.

Run the project and test the ASP.NET Application actions.

**Database Design**



**Main Functions**

User Management: Sign in/sign up, profile management, user roles.

Event Management: Create, view, edit, and delete events with details like title, description, time, location, and category.

Event Registration: Users can register to attend events with their name and email.

Real-Time Updates: Utilize SignalR for real-time updates on event information and attendee counts.

Search and Filter Events: Allow event searching by name, category, and filtering by date.

Reports and Analytics: Generate reports on event counts, attendee numbers, and analyze participation trends.