Creating an ASP.NET WebForms Application for School Database Management

Introduction

This project involves the creation of an ASP.NET WebForms application to build a user interface for managing a school database. Rainbow School is developing software for school management, and the goal is to create a prototype of the UI and navigation flow to understand the application's requirements.

In this project, we will create views and navigation for managing student data. This is a prototype with a focus on the user interface, and no backend code will be implemented.

Database Design

Design the database schema for the school management system using SQL Server Management Studio. Define tables for students, teachers, courses, classes, and any other necessary entities. Here are the SQL queries for creating tables and adding sample data:

create database SchoolManagement

use SchoolManagement

create table Students

(StudentID int primary key identity(1,1),

FirstName nvarchar(50) not null,

LastName nvarchar(50) not null,

DateOfBirth date,

Gender nvarchar(10),

Address nvarchar(100))

insert into Students (FirstName, LastName, DateOfBirth, Gender, Address) values

('John', 'Doe', '2000-01-15', 'Male', '123 Main Street, Delhi'),

('Jane', 'Smith', '2001-05-20', 'Female', '456 Park Avenue, Mumbai'),

('Amit', 'Patel', '2002-03-10', 'Male', '789 Oak Road, Bangalore'),

('Priya', 'Sharma', '2000-11-08', 'Female', '101 Pine Lane, Kolkata'),

('Rahul', 'Gupta', '2001-09-25', 'Male', '222 Cedar Street, Chennai')

select * from Students

Create WebForms for UI

In the Visual Studio project,we create a new WebForm for each part of the application (e.g., Student Management). We design the UI for each WebForm using ASP.NET controls like GridView, FormView, TextBoxes, Buttons, and Labels to represent data and interact with the user. Implement navigation controls like Menu, SiteMapPath, or Hyperlinks to allow users to navigate between different parts of the application.

Push to GitHub

Once we are satisfied with the changes, we commit them using Git and push to our GitHub repository. This will track our SQL scripts.

git init

git add .

git commit -m "Creating a WebForm Database"

git branch -M Sec5WebFormArch

git remote add origin https://github.com/PrashastVats1/Practice-Projects.git

git push -u origin Sec5WebFormArch

GitHub Link : https://github.com/PrashastVats1/Practice-Projects/tree/Sec5WebFormArch

Conclusion

This project guides you through the process of creating an ASP.NET WebForms application to prototype the user interface for managing a school database. It includes setting up the project, designing the database schema, creating

WebForms for UI, and tracking changes with Git. By following these steps, you can quickly visualize and navigate the application's UI, paving the way for future development.