



SKILL UP

Online Learning Platform web based Application

Team members

- Taghreed Samir Mohammed
- Rawan Mohamed Qandil
- Mohammed Abbas Mohammed
- Ahmed Kamel Abdel-Gaber
- Mahmoud Ahmed Mohamed
- Ahmed Mohamed Elsayed

Supervision

Eng.Karim Ali

Content List

- Application Business Solution
- Database Design
- Software Architecture
- Application Users
- Functional Requirements & Demo
- Future Works





Application Business Solution

Problem :

1. Limitations of Offline Learning

- Fixed Schedules
- Higher Costs
- geographical restrictions

2. Increasing Demand for Online Education

- Necessitates a robust platform for managing courses

Solution Overview:

The proposed Online Learning Platform developed with ASP.NET Core addresses these needs by providing a user-friendly web application that enables effective course management, student enrollment, and progress tracking

Key Features

01 Course Management

- Instructors and Admin can easily create, manage, and update courses, ensuring that content is current and relevant.

02 User Authentication

- Secure login with role-based access for students, instructors, and administrators ensures privacy and data security

03 Course Enrollment

- A simple and intuitive enrollment process allows students to join courses effortlessly, increasing participation rates

04 Progress Tracking

- Students can monitor their learning progress, which enhances motivation and accountability

Key Features

05

User Profiles

- Personalized profiles enable learners to track their enrolled courses and achievements, fostering a sense of ownership in their education

06

Search Functionality

- Easy searching and filtering options help users find and select courses that match their interests and goals.

07

Responsive Design

- A user-friendly interface ensures a seamless experience across various devices, making learning accessible anytime, anywhere

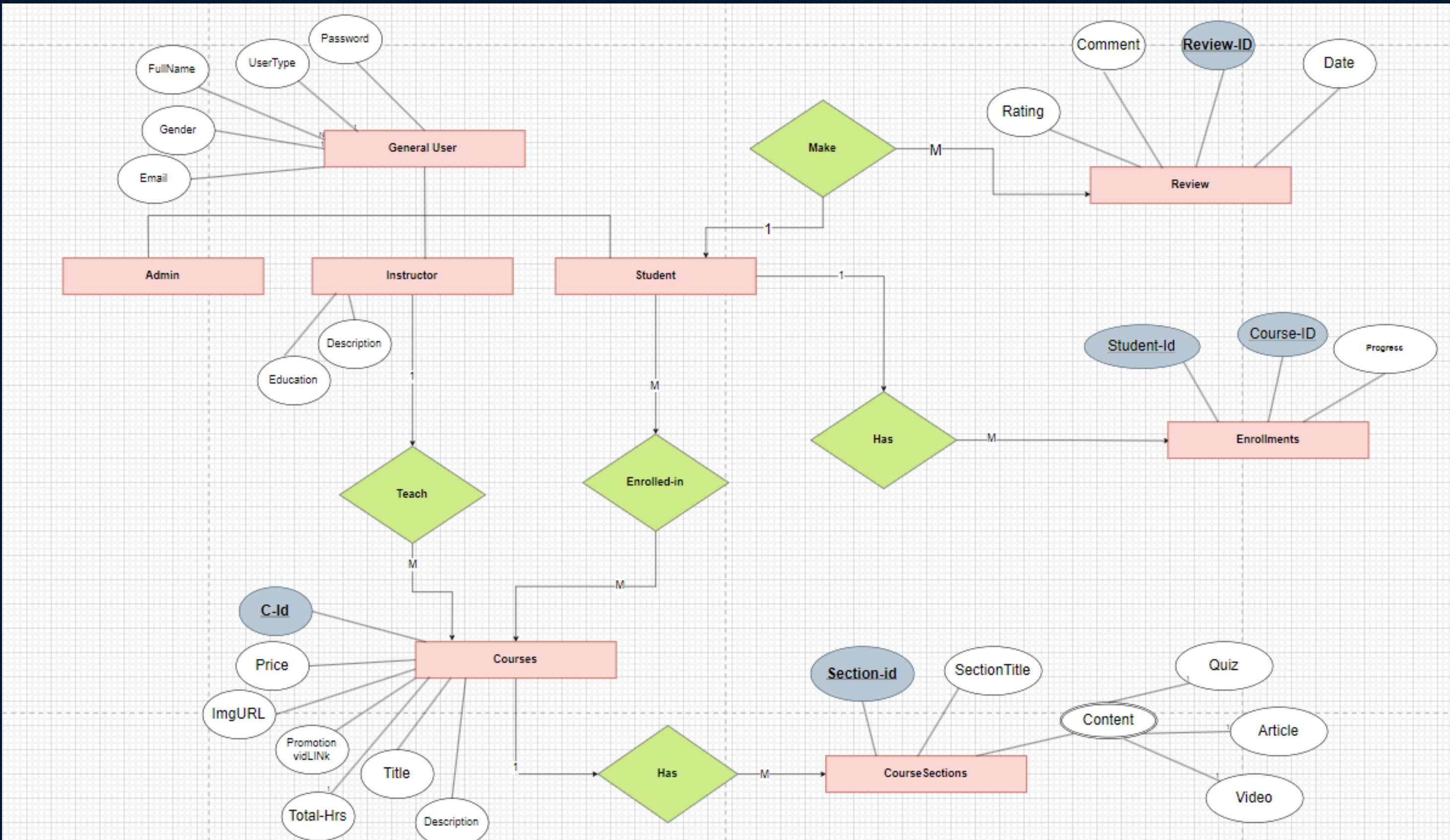
Database Design



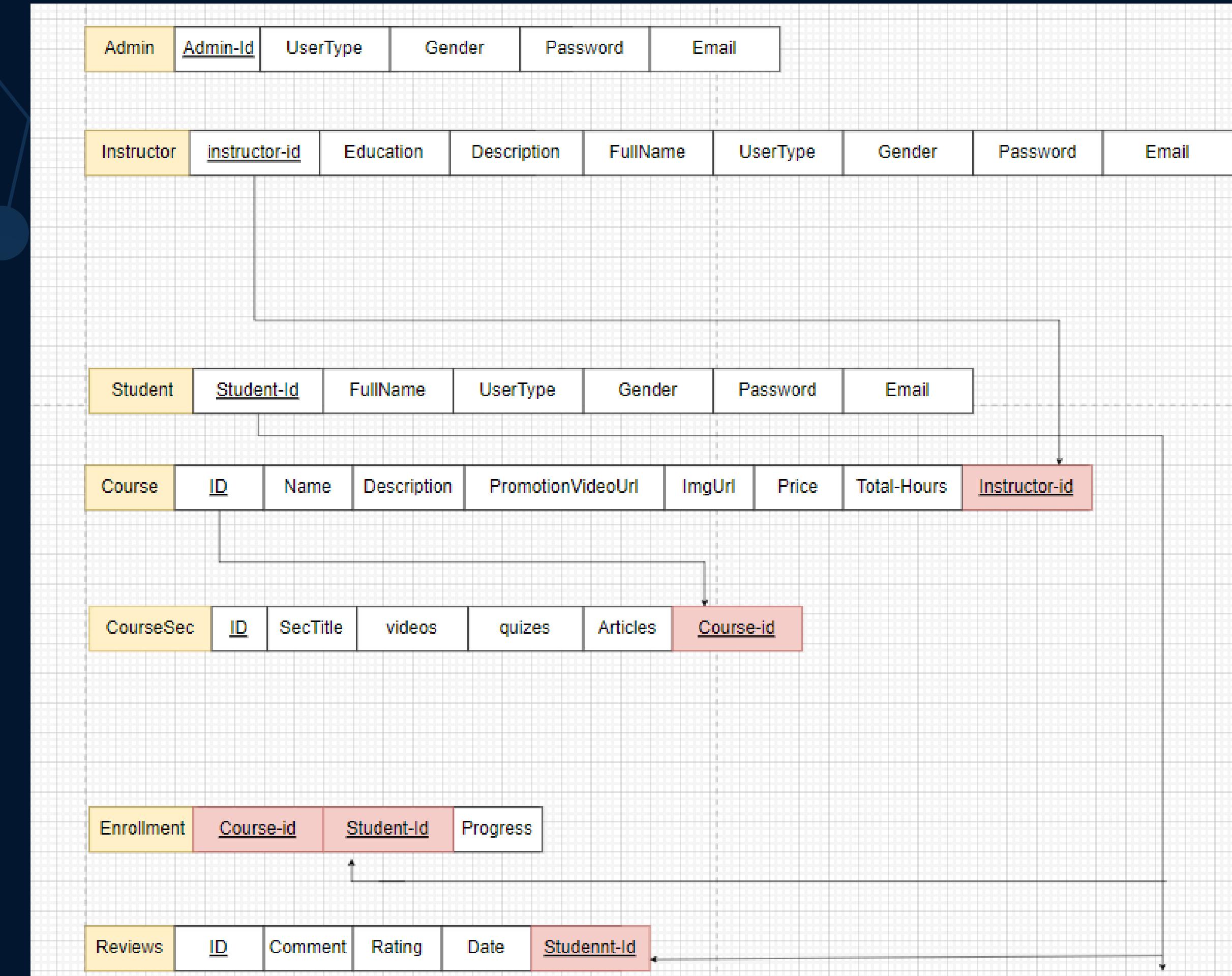
Entity Relationship Diagram

TPT inheritance

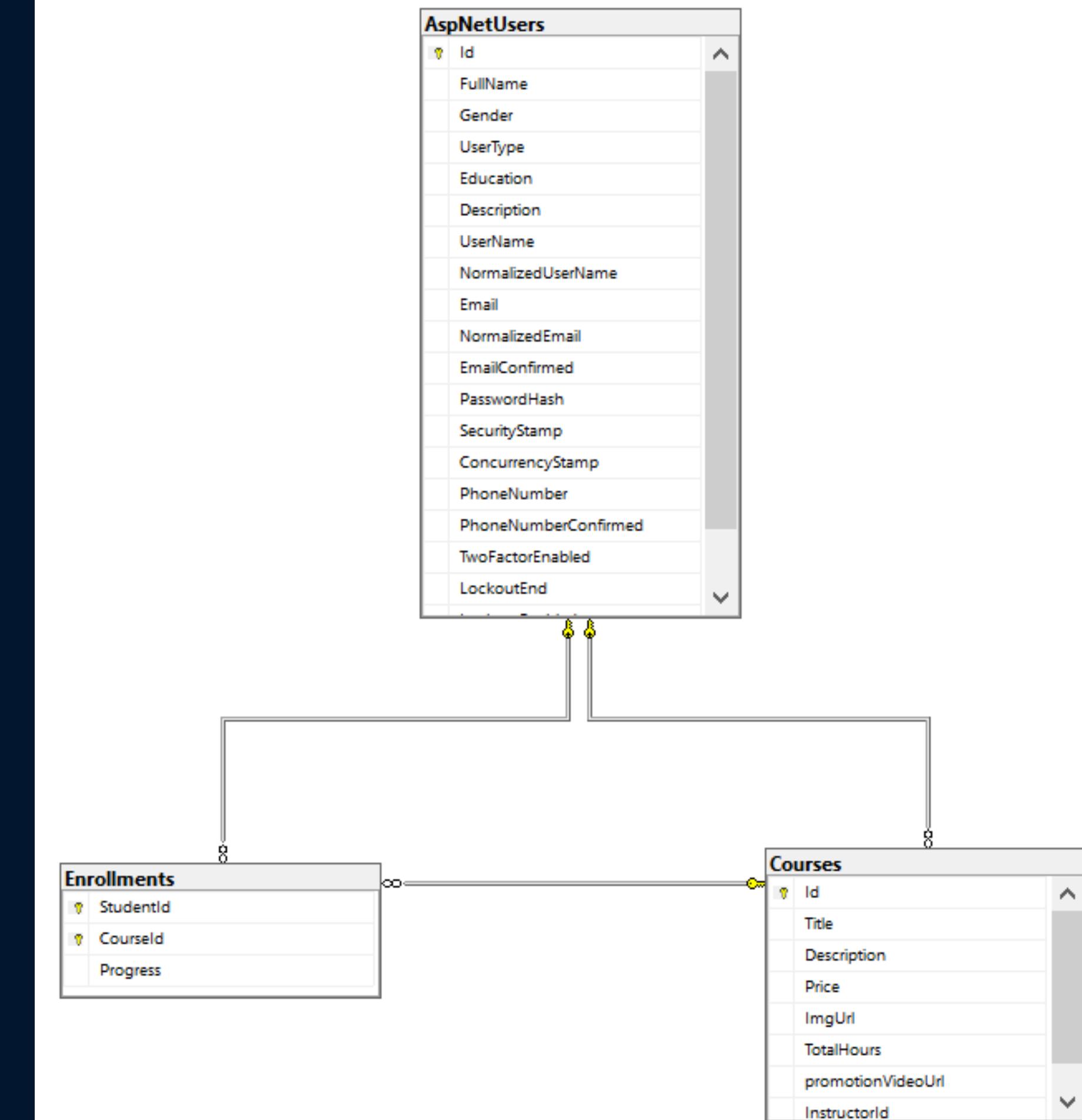
- **GeneralUser** (Base class)
- **Student** (Derived class)
- **Instructor** (Derived class)
- **Admin** (Derived class)



Mapping-ERD



Actual tables which created



Software Architecture

Technologies Used

N-teir Architcure

Entity Framework

Asp.Net Core MVC

Html,Css,JS

01

02

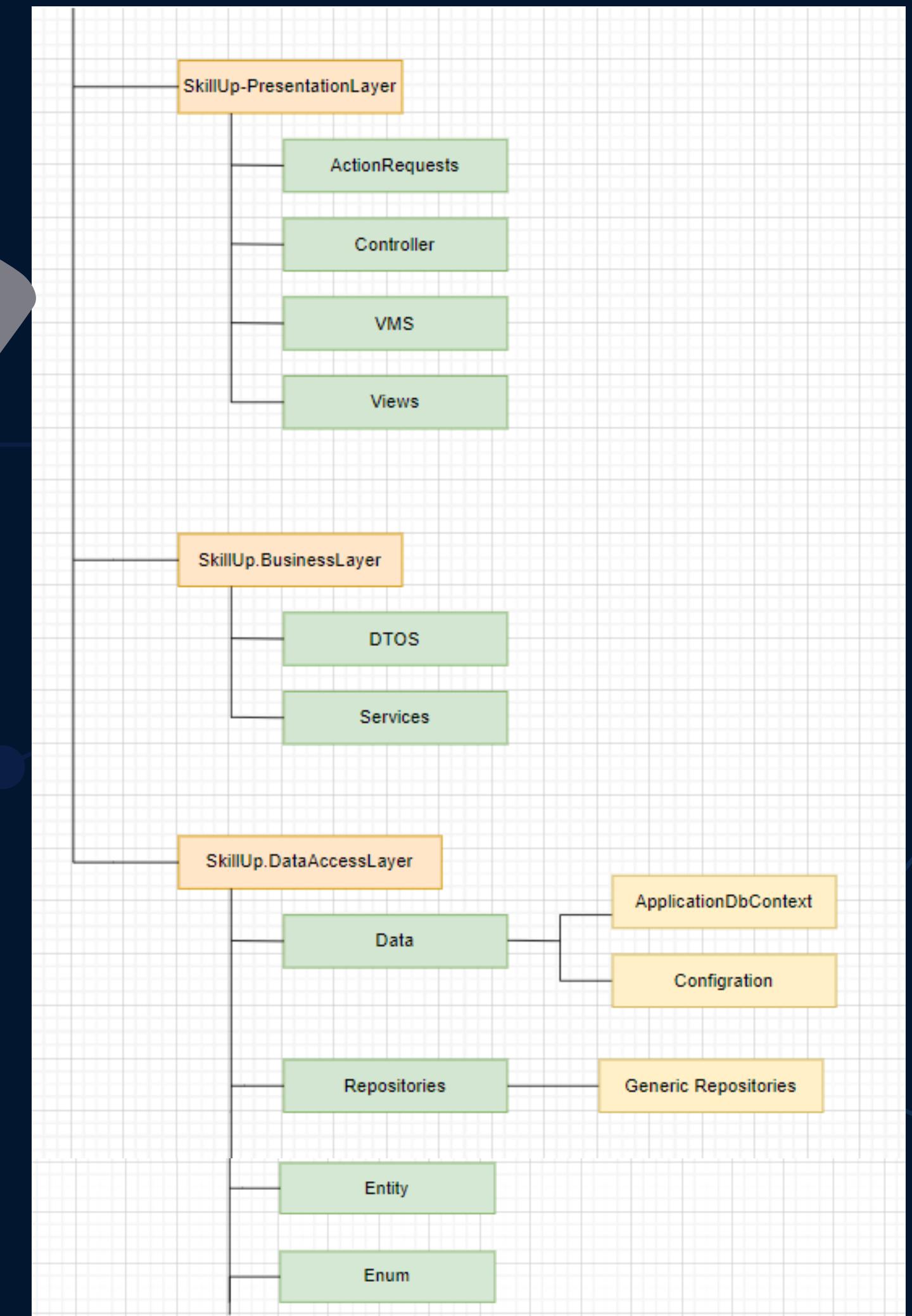
03

04

Main Structure

Also Used

- Code First DB
- Dependency Injection
- Linq
- Fluent API



Application Users

Application Users

Admin

- admin Can Manage Courses By Show all Courses with basic info, Create, Edit and Delete Courses
- can manage Users By show all users with basic info, Create user with role, Update and Delete Users

Instructors

- Instructors Can upload , Update and Delete Courses

Students/Learners

- Student Can Browse Courses, search and enroll in Courses
- Track progress

Authentication

- We have 3 type of Register Form one for Student, one for Instructor and one For Admin and single
- **Authentication** Determines if a user is logged in or not. Unauthenticated users (guests) can only see limited information on the home page .
- verifies a user's identity through a single login form, ensuring the user is either an admin, instructor, or student. Upon successful login, the system identifies the user type and redirects them to the appropriate dashboard or homepage based on their role:

Admin → Admin Dashboard

Instructor → Instructor Dashboard

Student → Homepage → can view Details and Enroll in Course

Authorization

- Role-Based Access:
 1. Admin: Full system control.
 2. Instructor: Manage personal courses.
 3. Student: Access and enroll in courses.
- Action Permissions:

Only authenticated students can enroll in courses

Functional Requirements

User Story For Students:

- Student Register Then Login then redirect to homepage
- view all courses
- Search For Course
- view details of course
- enroll in Course
- profile page to view details and enrolled courses

User Story For Admin:

- Admin Register Then Login then redirect to Admin dashboard
- Manage Users (update-Delete-Add)
- Manage Courses (update-Delete-Add)

User Story For Instructors:

- Instructor Register Then Login then redirect to Instructors dashboard

Future Works

Future works

- Add progress bar and Handle Progress Tracking System requirement
- work on instructor dashboard
- Add more features Like rating and Receive certificate after finish course

A woman with long dark hair is sitting at a desk in an office, stretching her arms above her head. She is wearing a blue button-down shirt. On her desk, there is a computer monitor showing a cityscape, a keyboard, a small potted plant, and some papers. A desk lamp is also visible. The background shows shelves with books and other office equipment.

THANK YOU
