**Assignment 02**

**Building ASP.NET Web API with Entity Framework Core and Web Application**

In this assignment, you will:

* Use the Visual Studio.NET to create a Web application and ASP.NET Core Web API project (with OData support).
* Perform CRUD actions using Entity Framework Core with *Database First approach.*
* Apply 3-layers architecture to develop the application.
* Apply Repository pattern and Singleton pattern in a project.
* Add CRUD and searching actions to the Web application with ASP.NET Core Web API.
* Apply to validate data type for all fields.
* Run the project and test the actions of the Web application.

# Database Design

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# Main Functions

* Create database with Forward Engineering approach (create model classes and DB context class and migration).
* Create Web API: Book management, Author management, and Publisher management: Read, Create, Update and Delete actions.
* Create Client application (with Desktop/Web application) interactive with WebAPI to perform these functions:
  + Search BookName and Price
  + Member authentication by Email and Password. If the user is “**Admin**” then allows to perform all actions, otherwise, the normal user is allowed to view/update the profile.

# Guidelines

# Activity 01: Create database

# Activity 02: Develop eBookStoreWebAPI project

**Step 01**. Create ASP.NET Core Web API project.

**Step 02**. Write codes for controllers to perform functions.

**Step 03**. Test Project with Swagger or Postman.

# Activity 03: Develop client eBookStore project

**Step 01**. Create Web Client project **eBookStore (Web MVC)**.

**Step 02**. Write codes perform functions with Web API.

# Activity 04: Run the Web project and test all actions

# Example for Web Application Client:







