MVC Web Application

As part of the coursework requirement for this module, we will develop an ASP.Net Core Web application using a MVC framework. The development of this web application should adopt an agile approach.

The first iteration of the Asp.Net Core Web application should include a working Data and Data Access component. Artefact1 due Friday 15th November. No marks will be available until last week in December.

Two pieces are required for this coursework requirement.

1. A report [20%]
2. Asp.Net Core project artefact with Data(Models) and Data Access Components (Database Context Class) [80%]

**Report [20%]**

1. Each student must identify the initial requirements of the client. Applications should lend themselves to using a shopping cart (for further work next term).
2. From the requirements, a data model diagram (Entity Relationship diagram) must be included within report which should include all entities, attributes and relationships.
3. All design decisions must be justified within the report. Example of design decisions are ‘Only members can take out loans’, ‘Only two books at most’, or ‘customers must register before they can buy items’.
4. Report should be no longer than **two** pages.

**Asp.Net Core Web Application [80%]**

Create a ASP.Net Core web application which adopts a N-Tier architecture which should include a

A data model layer called [SolutionName].Models

A data access layer called [SolutionName].DataAccess

Inside the Models layer/Folder

1. create classes which represent the entities, ensuring foreign key constraints are included.

Inside the DataAccess layer create a

1. a Database Context class which will allow access to a MS Sql Server or other. Extra marks will be awarded to students who experiment with other type of database servers.
2. The database context class should be injected into Web application using Dependency Injection (DI).
3. A declaration of all DBSet objects required for the database tables.
4. Build the Migrations inside the DataAccess layer.

**Report and the above requirements are due Friday 15h November 5:30pm. Any late submissions results in penalties.**