# Assignment 2 : Repository Pattern in .NET Web API (DB First Approach)

## Topic : Online Product Inventory Management System

The database already exists with two tables:

* **Products**
* **Categories**

**Database Structure**

**Table: Categories**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** |
| CategoryId | int | Primary key,Identity |
| CategoryName | Nvarchar(100) | Not null |

Table: Products

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** |
| ProductId | int | Primary key ,Identity |
| ProductName | Nvarchar(150) | Not null |
| Price | Decimal(10,2) | Not null |
| StockQuantity | Int | Not null |
| CategoryId | int | Foreign key -> Categories(CategoryId) |

Note:

**Implement Repository Pattern**

**🔹 Generic Repository Interface**

public interface IGenericRepository<T> where T : class

{

IEnumerable<T> GetAll();

T GetById(int id);

void Add(T entity);

void Update(T entity);

void Delete(int id);

void Save();

}