

.Net7 & Entity framework 7 using Code first approach

Product Management System

Required Properties are : Product Id, Product Name, Product Quantity and Product price.

Note:

1. Define a console based application for the given scenario using .Net 7 (Core), Entity Framework 7 and C# in VS Code
2. Use MySQL as your database.
3. Perform all the CRUD operations using Entity Framework Code-First Approach.
4. Make the application as user interactive.
5. Write an algorithm for the steps you are going to follow.
6. Maintain the Code Quality and the Coding Standard.

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Algorithm :

1. First create a dotnet project in vs code using command in terminal **“Dotnet new console”**.
2. After this the entity framework related packages commands are used in terminal are
**“dotnet add package MySql.EntityFrameworkCore --version 7.0.0
dotnet add package Microsoft.EntityFrameworkCore --version 7.0.5
dotnet add package Microsoft.EntityFrameworkCore.Tools --version 7.0.5
dotnet add package Pomelo.EntityFrameworkCore.MySql --version 7.0.0”**
3. After you create a model of the database using code first approach and also create context of the database i create 2 files named as **“Productmodel.cs” and “ProductContext.cs”**
4. We need to perform the CRUD operations using this code first approach. I do each operation, create each class and give a file named as **“Create,read,update and delete “** .
5. Create an migrations for this approach use an command
“ dotnet tool install --global dotnet-ef --version 7.0.14

dotnet ef migrations add "flip" dotnet ef database update"

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Output:

Add Data:

D:\Yuvaraj\Technical activity\DOT NET\Entity Framework\TMS\bin\Debug\net7.0\TMS.exe

```
-----
Product Management System
-----
1.Add Product    2.Show Product  3.Update Product    4.Remove Product    5.Exit app
Enter your choice: 1
Enter Product ID :
1400
Enter the Product Name :
Playstation 5 Console
Enter the Product Quantity :
4
Enter the Product price :
120000

-----
Product Management System
-----
1.Add Product    2.Show Product  3.Update Product    4.Remove Product    5.Exit app
Enter your choice: 1
Enter Product ID :
1500
Enter the Product Name :
X-Box game Console
Enter the Product Quantity :
3
Enter the Product price :
90000

-----
Product Management System
-----
1.Add Product    2.Show Product  3.Update Product    4.Remove Product    5.Exit app
Enter your choice: 1
Enter Product ID :
1600
Enter the Product Name :
GTA 6 Game CD
Enter the Product Quantity :
15
Enter the Product price :
2000

-----
Product Management System
-----
1.Add Product    2.Show Product  3.Update Product    4.Remove Product    5.Exit app
Enter your choice: 1
Enter Product ID :
1700
Enter the Product Name :
MWE2k23 game CD
Enter the Product Quantity :
7
Enter the Product price :
1500
```

Show data:

D:\Yuvara\Technical activity\DOT NET\Entity Framework\TMS\bin\Debug\net7.0\TMS.exe

```
Product Management System
-----
1.Add Product    2.Show Product  3.Update Product    4.Remove Product    5.Exit app
Enter your choice: 2
Product ID: 1000
Product Name: Boat smartwatch
Product Quality: 3
Product Price: 1500

Product ID: 1100
Product Name: Samsung A30
Product Quality: 2
Product Price: 15000

Product ID: 1200
Product Name: Lenovo ideapad slim 3
Product Quality: 2
Product Price: 45000

Product ID: 1400
Product Name: Playstation 5 Console
Product Quality: 4
Product Price: 120000

Product ID: 1500
Product Name: X-Box game Console
Product Quality: 3
Product Price: 90000

Product ID: 1600
Product Name: GTA 6 Game CD
Product Quality: 15
Product Price: 2000

Product ID: 1700
Product Name: WWE2k23 game CD
Product Quality: 7
Product Price: 1500

Product Management System
-----
1.Add Product    2.Show Product  3.Update Product    4.Remove Product    5.Exit app
Enter your choice:
```

Update data:

D:\Yuvaraj\Technical activity\DOT NET\Entity Framework\TMS\bin\Debug\net7.0\TMS.exe

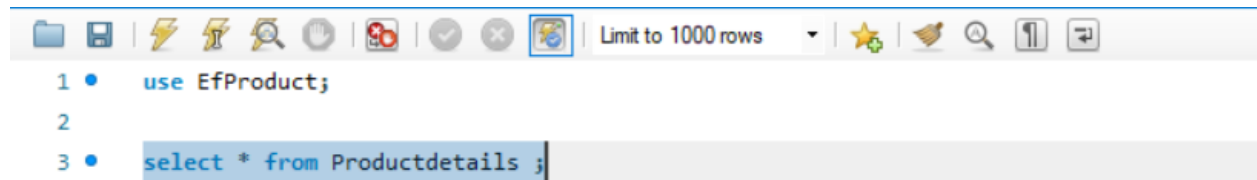
Product Quality: 7
Product Price: 1500

```
-----
Product Management System
-----
1.Add Product    2.Show Product  3.Update Product    4.Remove Product    5.Exit app
Enter your choice: 3
Enter your ProductID 1000
Updating values into the tables:
What you want to update
1.Name
2.Quality
3.Price
1
Current Name: Boat smartwatch
Enter new Product Name : Firebolt Talk Smartwatch
-----
Product Management System
-----
1.Add Product    2.Show Product  3.Update Product    4.Remove Product    5.Exit app
Enter your choice: 3
Enter your ProductID 1000
Updating values into the tables:
What you want to update
1.Name
2.Quality
3.Price
3
Current Location: 1500
Enter new Price: 1200
-----
Product Management System
-----
1.Add Product    2.Show Product  3.Update Product    4.Remove Product    5.Exit app
Enter your choice: █
```

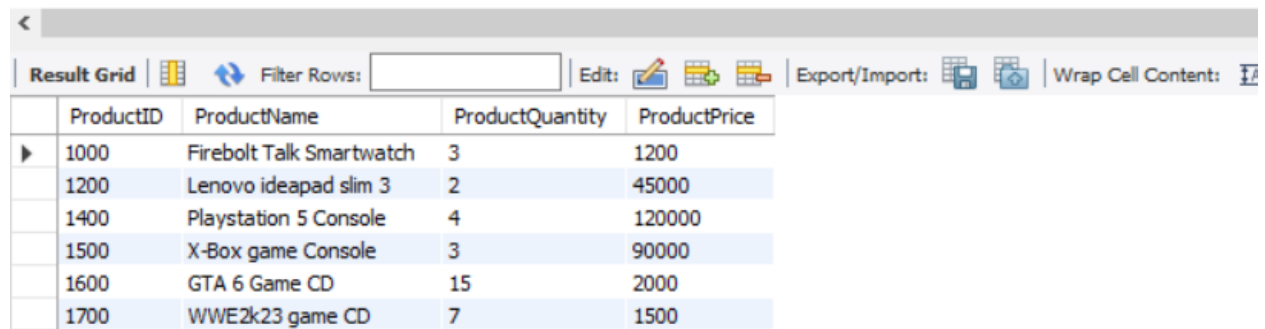
Remove data:

```
-----
Product Management System
-----
1.Add Product    2.Show Product  3.Update Product    4.Remove Product    5.Exit app
Enter your choice: 4
Enter the Product Id :1100
Removing Product - id: 1100, Product name: Samsung A30
Removal successful!
-----
Product Management System
-----
1.Add Product    2.Show Product  3.Update Product    4.Remove Product    5.Exit app
Enter your choice: █
```

MySql Workbench output:



```
1 • use EfProduct;
2
3 • select * from Productdetails ;
```



	ProductID	ProductName	ProductQuantity	ProductPrice
▶	1000	Firebolt Talk Smartwatch	3	1200
	1200	Lenovo ideapad slim 3	2	45000
	1400	Playstation 5 Console	4	120000
	1500	X-Box game Console	3	90000
	1600	GTA 6 Game CD	15	2000
	1700	WWE2k23 game CD	7	1500