ORM: Mapping and Manipulating Data

What is ORM?

- Object-Relational Mapping (ORM) is a programming technique that allows developers to interact with a relational database using object-oriented programming concepts. It acts as a bridge between the object-oriented domain of an application and the relational database domain, simplifying data manipulation and reducing the need for complex SQL queries.

```csharp
using (SqlConnection connection = new
SqlConnection("Server=YourServer;Database=YourDatabase;Trusted_Connection=True;"))
{
    SqlCommand command = new SqlCommand("SELECT Id, Name, Price FROM Product", connection);
    connection.Open();

    using (SqlDataReader reader = command.ExecuteReader())
    {
        while (reader.Read())
        {
            Console.WriteLine($"ID: {reader["Id"]}, Name: {reader["Name"]}, Price:
{reader["Price"]}");
        }
    }
}
```

Dapper

```csharp
using (SqlConnection connection = new
SqlConnection("Server=YourServer;Database=YourDatabase;Trusted_Connection=True;"))
{
    var products = connection.Query<Product>("SELECT Id, Name, Price FROM Product").ToList();

    foreach (var product in products)
    {
        Console.WriteLine($"ID: {product.Id}, Name: {product.Name}, Price: {product.Price}");
    }
}
```

Entity Framework Core

```csharp
using (var context = new AppDbContext())
{
    var products = context.Products.ToList();

    foreach (var product in products)
    {
        Console.WriteLine($"ID: {product.Id}, Name: {product.Name}, Price: {product.Price}");
    }
}
```

Workshop Time

Questions and Answers