Dapper

What's Dapper?

An ORM is an Object Relational Mapper, which is responsible for mapping between database and programming language.

How Dapper Works?

It is a three step process.

- Create an IDbConnection object.
- Write a query to perform CRUD operations.
- Pass query as a parameter in Execute method.

Installation

Dapper is installed through NuGet:

```
PM> Install-Package Dapper
```

Requirement

Dapper work with any database provider since there is no DB specific implementation.

Dapper

Dapper – Execute

Execute is an extension method which can be called from any object of type IDbConnection.

It can execute a command one or multiple times and return the number of affected rows. This method is usually used to execute:

- Stored Procedure
- Insert statement
- Update statement
- Delete statement

Dapper – Query

Query method is an extension method which can be called from any object of type IDbConnection. It can execute a query and map the result.

The result can be mapped to:

- Anonymous
- Strongly Typed
- Multi-Mapping (One to One)
- Multi-Mapping (One to Many)
- Multi-Type

Dapper

Example - Query Anonymous

Raw SQL query can be executed using Query method and map the result to a dynamic list.

```
string sql = "SELECT TOP 10 * FROM OrderDetails";

using (var connection = new SqlConnection(FiddleHelper.GetConnectionStringSqlServerW3Schools()))
{
        var orderDetail = connection.Query(sql).FirstOrDefault();

        FiddleHelper.WriteTable(orderDetail);
}
```

Example - Query Strongly Typed

Raw SQL query can be executed using Query method and map the result to a strongly typed list.

```
string sql = "SELECT TOP 10 * FROM OrderDetails";

using (var connection = new SqlConnection(FiddleHelper.GetConnectionStringSqlServerW3Schools()))
{
        var orderDetails = connection.Query<OrderDetail>(sql).ToList();

        Console.WriteLine(orderDetails.Count);

        FiddleHelper.WriteTable(orderDetails);
}
```

Dapper

First, Single & Default

Be careful to use the right method. First & Single methods are very different.

Result	No Item	One Item	Many Items
First	Exception	Item	First Item
Single	Exception	Item	Exception
FirstOrDefault	Default	Item	First Item
SingleOrDefault	Default	Item	Exception