# **Why Entity Framework?**

Overview of ADO.NET Entity Framework



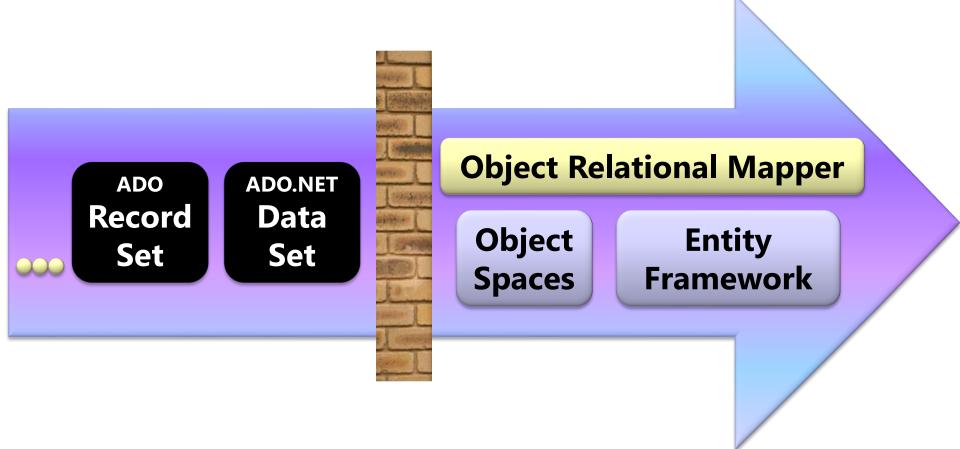


#### **Overview**

- Microsoft Moves Forward with Data Access in .NET
- Entity Framework and Your Application
- Coding 101 with Entity Framework

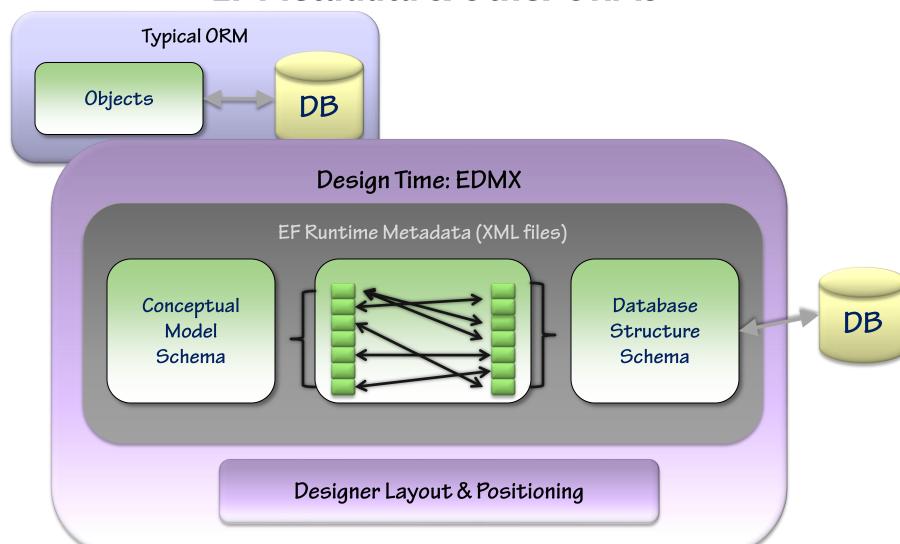


## **Why Entity Framework?**



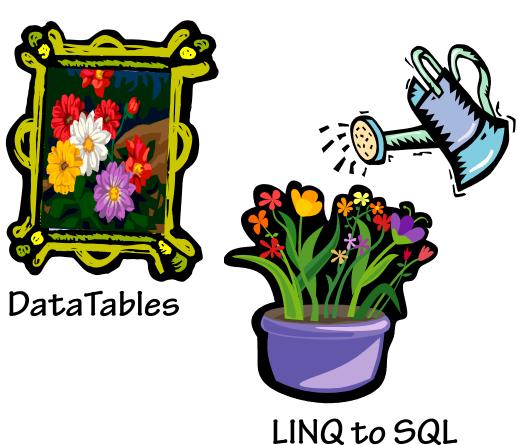


### **EF Metadata & Other ORMs**





## **ADO.NET Today & Tomorrow**



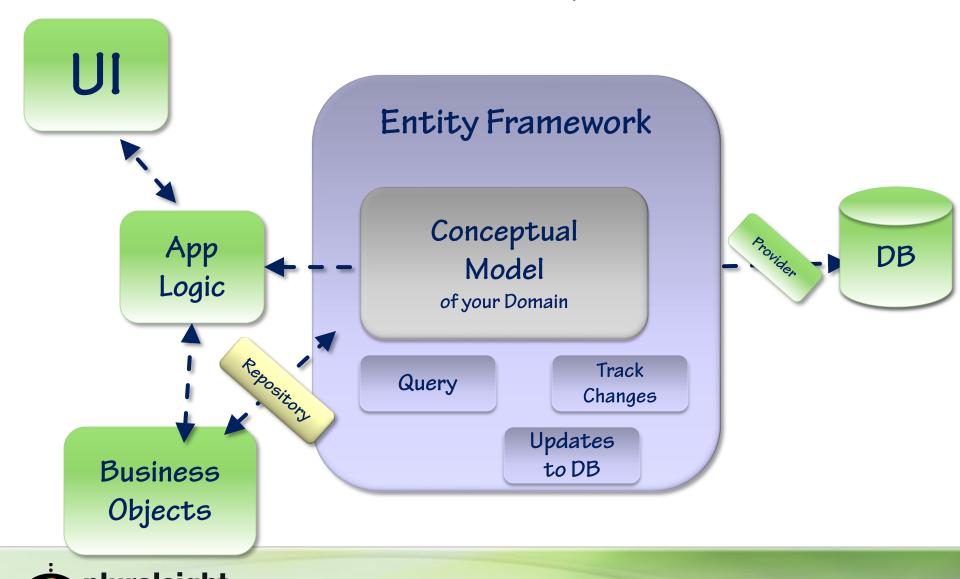


**Entity Framework** 



Model in Entity Framework ModifiedDate Contact . Navigation Properties Model pant CustomerType ■ Properties ContactID Database First 🚰 FirstName TypeID LastName First tion Properties M ContactID \* FirstName mers \*\*LastName 🚰 Type AddDate ModifiedDate Navigation Pro 3 Lodgings EquipmentID New ReservationID Mame Name ContactID TripID Legacy RowVersion Database PrimaryActivityID Rayment TripID Database Properties LodgingID PaymentID PaymentDate StartDate \*\* EndDate ReservationID Amount TripCostUSD ModifiedDate 💐 Destination Code Reservatio 🐴 Trip First Secondar ☐ Properties Payment Activity public class contr TripID 🎢 De □ Properties PaymentID public Contact() MactivityID artDate PaymentDate lame EndDate ReservationID Addresses = new List<Address>(): Amount TripCostUSD ModifiedDate ☐ Navigation Properties public int ContactId { get; set; } operties 🚰 RowVersion Destination public string FirstName { get; set; } Lodging public string LastName { get; set; } laryPrefC... Reservations Reservation public string Title { get; set; } Equip., ents Activities public DateTime AddDate { get; set; } public DateTime ModifiedDate { get; set; } private string Gender { get; set; } public ICollection<Address> Addresses { get; set; }

## **Conceptual Model in your Apps**



### **Entity Framework Everywhere**

# Client/n-Tier

- WinForms
- WPF

## Distributed

- ASP.NET EntityDataSource
- ASP.NET Dynamic Data
- ASP.NET MVC
- WCF & Self-Tracking Entities
- WCF RIA Services (for Silverlight)
- WCF Data Services (RESTful data)

# Cloud

- SQL Azure
- AppFabric (Velocity/caching)



### **Summary**

- Work with a conceptual model of your business domain
- VS2010 Entity Data Model Designer + .NET 4 APIs
- Works with any database with an EF-savvy provider
- Use in RAD apps or sophisticated enterprise architectures
- Next generation of ADO.NET data access functionality
- Long term commitment from Microsoft



### References

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  - http://www.pluralsight.com
- Programming Entity Framework, 2<sup>nd</sup> Edition, Julie Lerman
  - O'Reilly Media, August 2010
  - http://www.learnentityframework.com
- Microsoft Data Developer Center
  - http://msdn.com/data

