



DEVREACH

Sofia, Bulgaria | 12–13 October, 2009

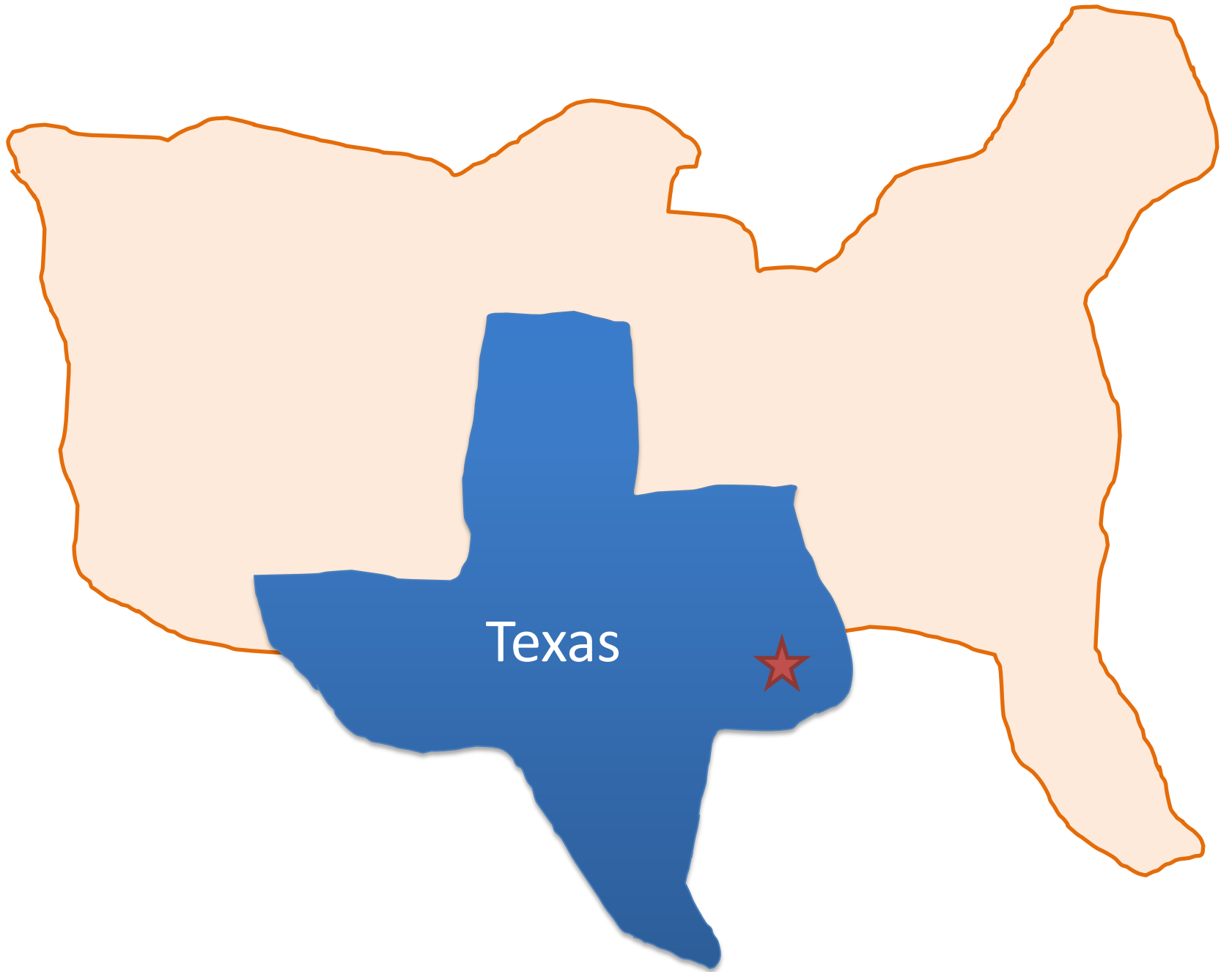
Common Data Layer

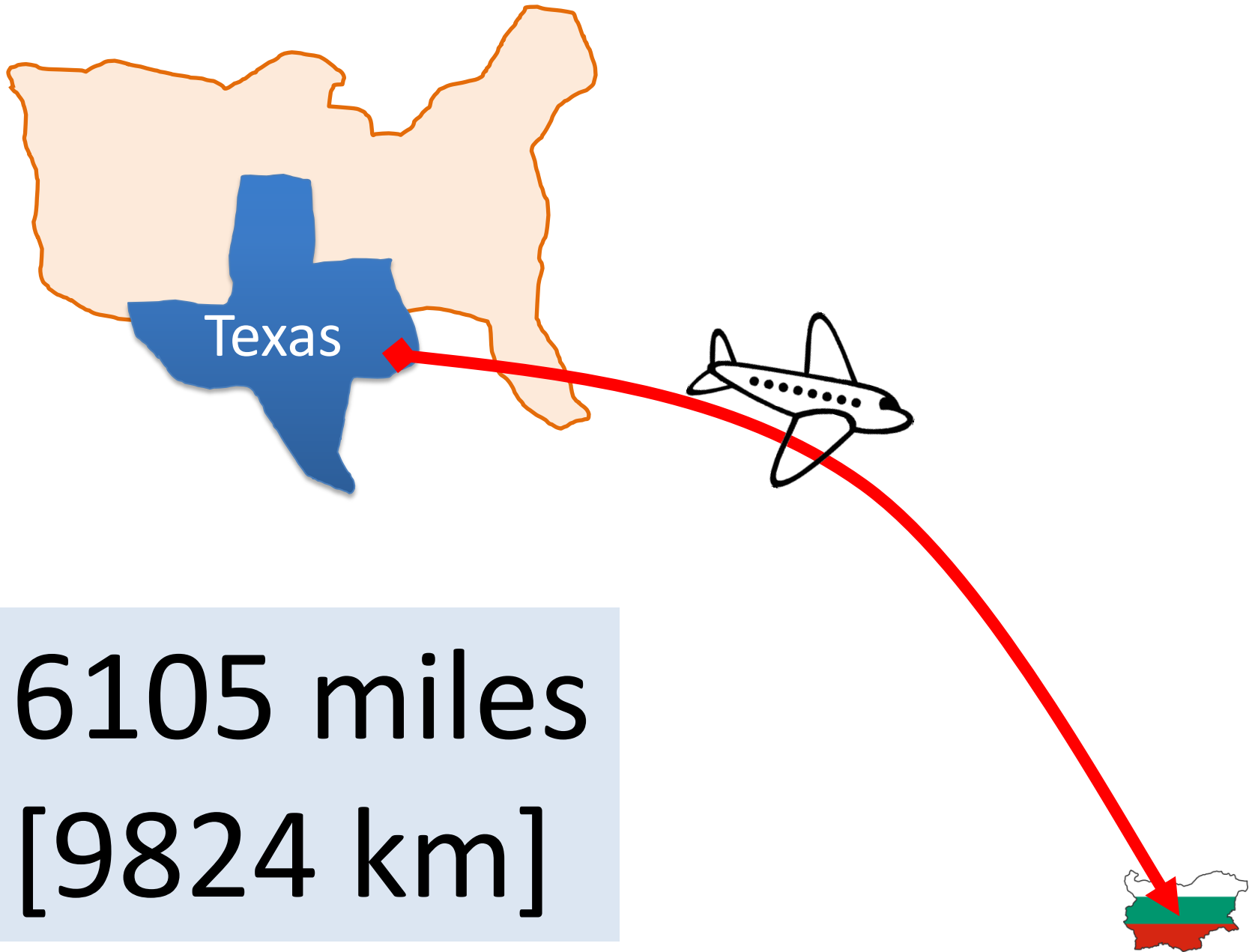
ASP.NET & Silverlight

introductions

bio

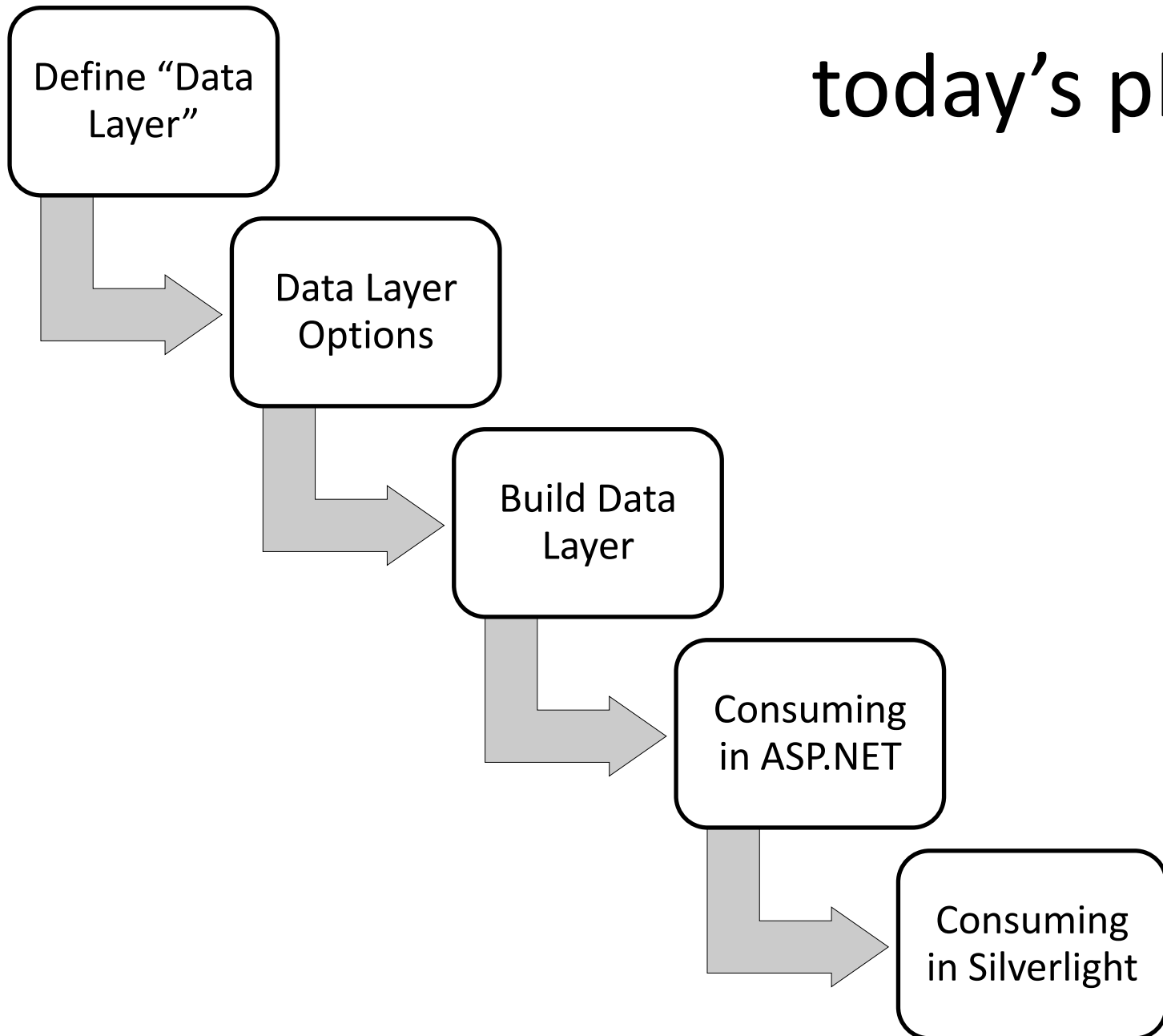
name	todd anglin
hometown	The Woodlands, TX
employer	telerik
title	chief evangelist
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6105 miles
[9824 km]

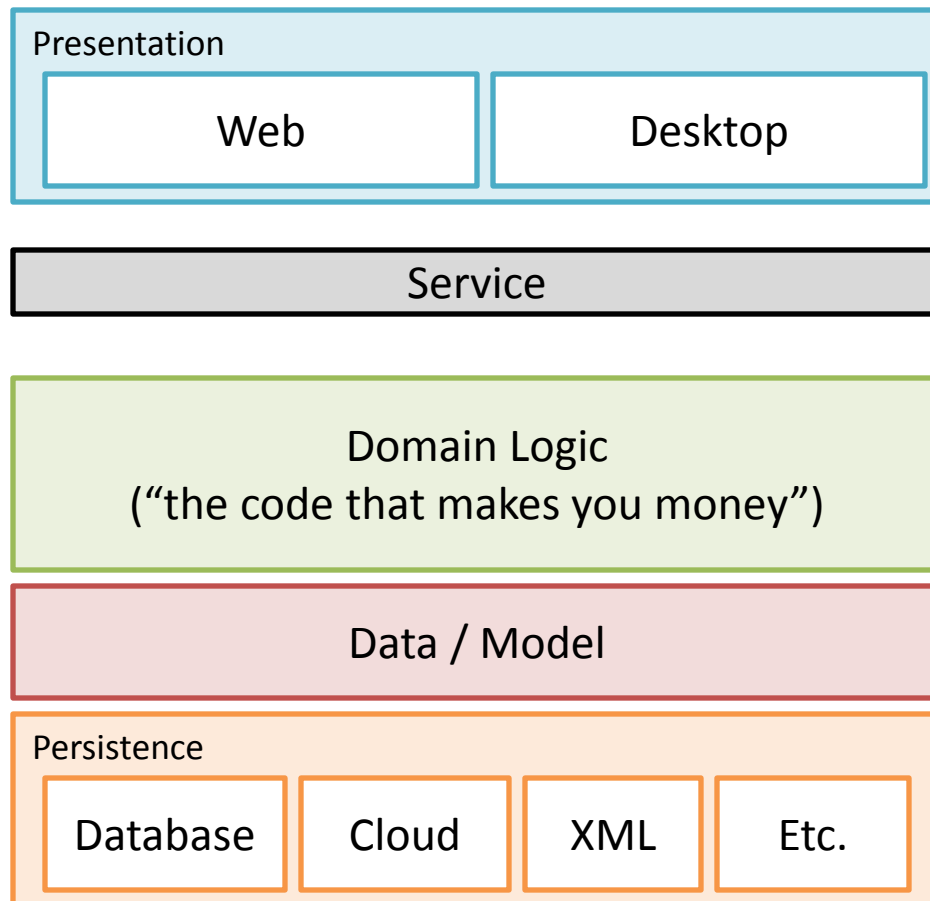
today's plan



what is a “data layer”?

data layer

- Responsible for talking to “persistence layer”



additional responsibilities

- managing connections
- generating queries
- mapping application entities

is building reusable data layers
hard?

No.

Quick and dirty data layer

DEMO

why build a data layer?

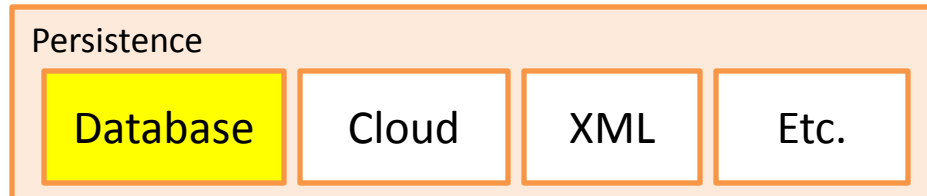
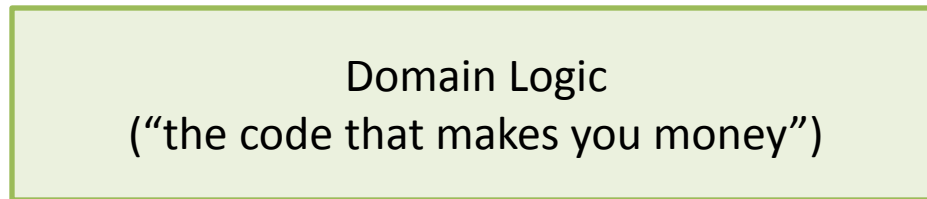
what's the benefit?

importance of data layer

- Decouple application from persistence
 - = easier maintenance
 - = improved testability
 - = greater reusability

*multiple presentation layers,
one set of data access code*

*if your database changes,
your application is easy to
update*





a good data layer is...

1. Handles *all* data access

2. Hides implementation

3. Flexible

- Easy to refactor

how do we build “data layers”?

By Hand

Pros

- POCO
- YAGNI
- No-RTFM

Cons

- Time
- No FM

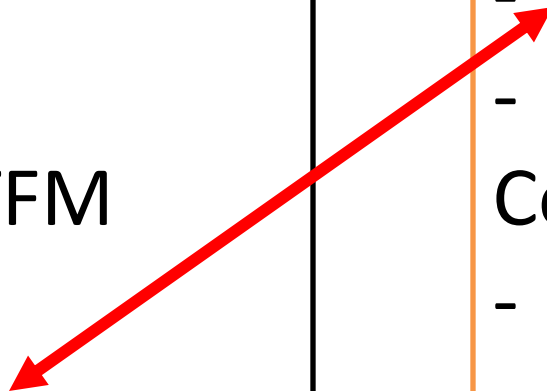
ORM

Pros

- Time
- Flexible

Cons

- Learning
- Limits
- Trust*



popular .NET ORMs

Microsoft

- LinqToSQL
- Entity Framework

Open Source

- nHibernate

Commercial

- Telerik
OpenAccess
- LLBGenPro
- EntitySpaces

Build data layer with LinqToSql & EF

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data layer patterns

Popular Patterns

- **Active Record**
- **Unit of Work**
- **Repository**

Active Record

Objects manage themselves
.NET EX: SubSonic, Castle
ActiveRecord

Unit of Work

Tracks changes to objects and
handles persisting changes
.NET EX: LinqToSQL, EF

Repository

Mediates between domain and
DAL (additional abstraction)
.NET EX: Can be applied to many

Add data access pattern to project

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fork in the road

service layer

- lightweight interface to DAL
- support all presentation layers

Options

- WCF
- ASMX
- Astoria (ADO.NET Data Services)
- RIA Services

RIA Services*

ADO.NET Data Services

WCF

Add service layer to project

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consume DAL in ASP.NET

Options:

- A. Write server code
- B. Write client code
- C. DomainDataSource

Consuming data layer in ASP.NET

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consume DAL in Silverlight

Options:

- A. Write code
- B. DomainDataContext

Consuming data layer in Silverlight

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@#*!

boss: we need magical cloud storage

Change data layer persistence store

HOMEWORK

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deliver more than expected