Frameworks and DDD: Keeping the Model Clean

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Agenda

- Pros/Cons of application frameworks
- Refactoring to DDD patterns – getting rid of the persistence/plumbing code from the Domain Model
- My own DDD rules for dealing with Repositories and Unit of Work

- Show lots of code!!!

Pros & Cons of Frameworks

- Pros
  - You can get a lot for free
  - Can save you a lot of time
  - Usually pretty well tested
- Cons
  - Can allow developers to easily fall into traps
  - Sometimes mixes up the logic with the plumbing
  - Can be very difficult to maintain and reuse logic

demo

Taking a look at building ASP.NET web applications with wizards / Introducing a SharePoint-based application for sending legal notices

Refactoring to DDD Patterns

- Writing good tests to validate the requirements
- Building a Domain Model
- Refactoring infrastructure/plumbing code out of the Domain Model

demo

Looking at the progress of the legal notice application code over the versions...

My Rules for Repositories

- All Repositories must implement some type of Repository interface, i.e. ICustodianRepository

- All Repositories are created via a Factory which uses Configuration and Reflection

- Domain Model classes can use Repositories, but they can only be coupled to their interface, NOT their implementation!

Unit of Work and Repositories

- The Unit of Work does not actually talk to the data source!

- Repositories and Unit Of Work instances talk via interfaces and double-dispatch

- Repositories can work with or without a Unit of Work, and vice-versa

demo

Looking at how the code of the legal notice application is now organized using DDD principles

Resources

- [Evans]: Domain-Driven Design: Tackling Complexity in the Heart of Software, Evans, Addison-Wesley (2003)
- [Fowler]: Patterns of Enterprise Application Architecture, Fowler, Addison-Wesley (2003)
- [Nilsson]: Applying Domain Driven Design and Patterns: using .NET, Addison Wesley 2006

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