SOEN 387 Web-based Enterprise Application Design

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Fall, 2015

Outline

New Patterns, Old Responsibilities

Outline I

Identity Maps

- We have talked a bit about these items, but to sum up:
- Folwer Suggests Identity Map per session but...
- ...Identity Map per request is safer
- Identity Map with Proxy is a powerful combination
- Identity Map as an Interface on the UoW...
- ...We explicitly suggest the implied common map for all Domain Objects

Outline I

Data Mapper Split

- What does a Data Mapper do?
- Persists Domain Object
- Maps from persistence to Domain Objects
- Different directions, separable tasks

Input Mapper

- You often want a variety of find methods
- A Domain Object's Input Mapper has all the ways to get those Domain Objects
- Most of the finds take Domain Object parameters
- Can also take raw data for field/criteria searches
- Can refactor means of converting a ResultSet row to a Domain Object
- Can know what fields all the find methods care about
- This can mean accepting a variety of joins

Output Mapper

- Mapping from a Domain Object to raw data is not new
- This is just a place to put it
- Complex Cascading can live here
- We will see a better solution to cascades at the end of this lecture

Data Mapper Decisions

- Is the identity find still special?
- Does the Output Mapper change much?
- What about the Input Mapper?
- A difference between getting single instances and collections?

Outline I

TDG Split

- What does a TDG do?
- Makes SELECT calls
- Makes calls to change the database
- Needs to know about tables, fields
- Sometimes has fancy utility SQL calls (counting, stored procs)
- Sounds pretty separable

Finders

- Know all the SELECT calls
- Maybe even store the list of fields
- They get changed and added to the most
- Be careful to always sanitize inputs!
- Table name can be found from the TDG

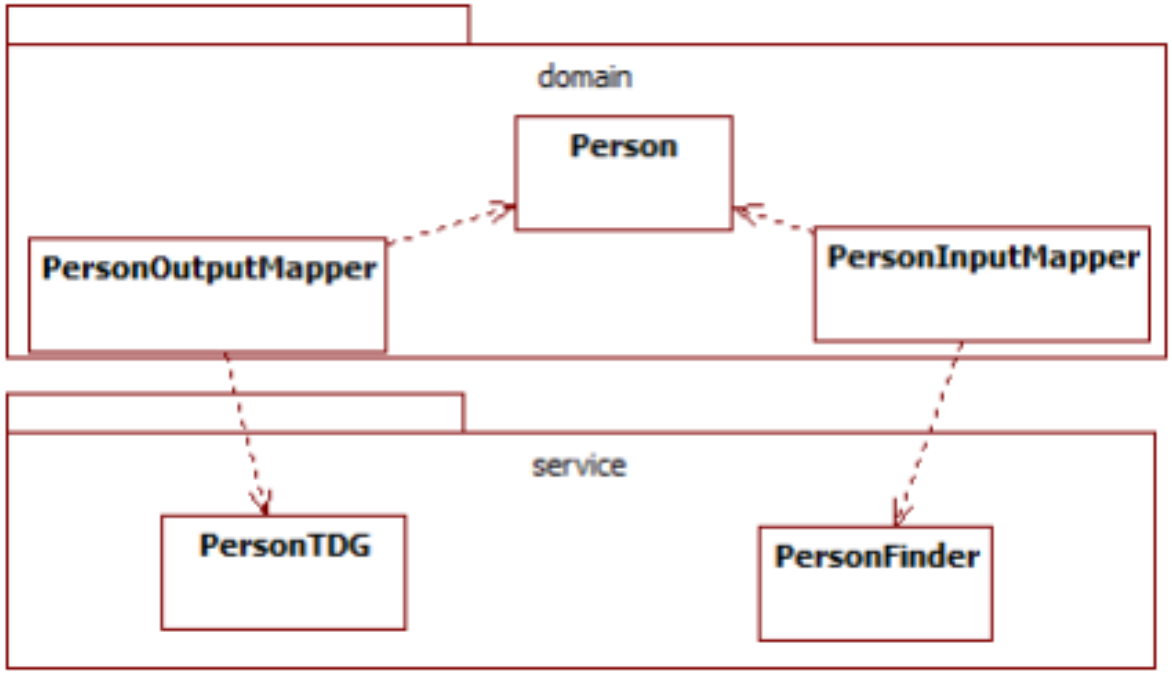
Revised TDGS

- Know the table name
- Create/Delete Table
- Insert/Update/Delete
- These change rarely
- Utility calls (may change more, but less than SELECT statements)

Data Source Decisions

- Does it matter which of the two know the table name?
- Can more than one Table Name be known? Who needs to know that?
- Does this split work if dealing with XML or other flat-file systems?

The Split


domain
Person
PersonOutputMapper
PersonInputMapper
service
PersonTDG
PersonFinder