

## **Spike Plan**

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### **Spike 5b**

**Language:** C#

**Name:** C# Layer Spike

#### **Context:**

Database applications typically consist of a number of Layers, usually consisting of a data access layer, a business layer, and a user interface layer.

#### **Knowledge Gap:**

The team has not implemented layered applications before.

#### **Goals/Deliverables:**

1. Command line application that is constructed from a
  - a. User interface layer
  - b. Business/Application Layer
  - c. Data Access Layer (DAL)
2. Constrains:
  - a. UI communicates with Business Layer via an Interface(s)
  - b. Business Layer accesses Data Access Layer via Interfaces
  - c. Separate layers into different namespaces and DLLs

**Planned Start:** Week 5

**Deadline:** Week 7

#### **Planning notes:**

1. Create a Data Access Layer that uses ADO.NET to fetch DataSets
    - a. This can be implemented as a number of Table Adapters within your DAL
  2. Create a Service Interface within the Business Layer code
    - a. It fetches DataSets from the DAL and executes requested functionality
    - b. This will include "Manager" objects
  3. Implement some basic business logic within your model (Business Layer)
    - a. E.g. The code needed to add a Review, with validation etc.
  4. Implement a console user interface driven by command line arguments only
    - a. Use command line arguments to initiate commands, hard code values as needed
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