#### Module 01:

"Setting the Scene"



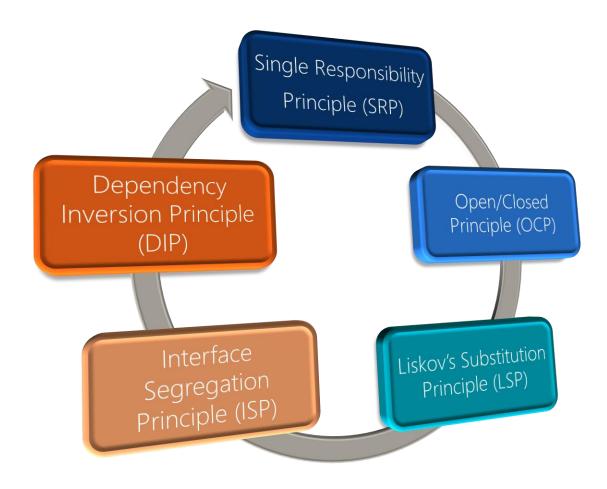


# Agenda

- Introduction
- Remember SOLID?
- ▶ SOLID vs. Three-Layer Architecture
- Summary



### The Five Principles of SOLID



### Single Responsibility Principle (SRP)

Each class should only have a single responsibility.

Each class should have only one reason to change

# Open/Closed Principle (OCP)

Software entities should be open for extension, but closed for modification

## Liskov Substitution Principle (LSP)

If S is a subtype of T, then objects of type T may be replaced with objects of type S without breaking the program

## Interface Segregation Principle (ISP)

A client should not be forced to depend upon methods it doesn't use

# Dependency Inversion Principle (DIP)

High-level modules should not depend on low-level modules. Both should depend on abstractions.

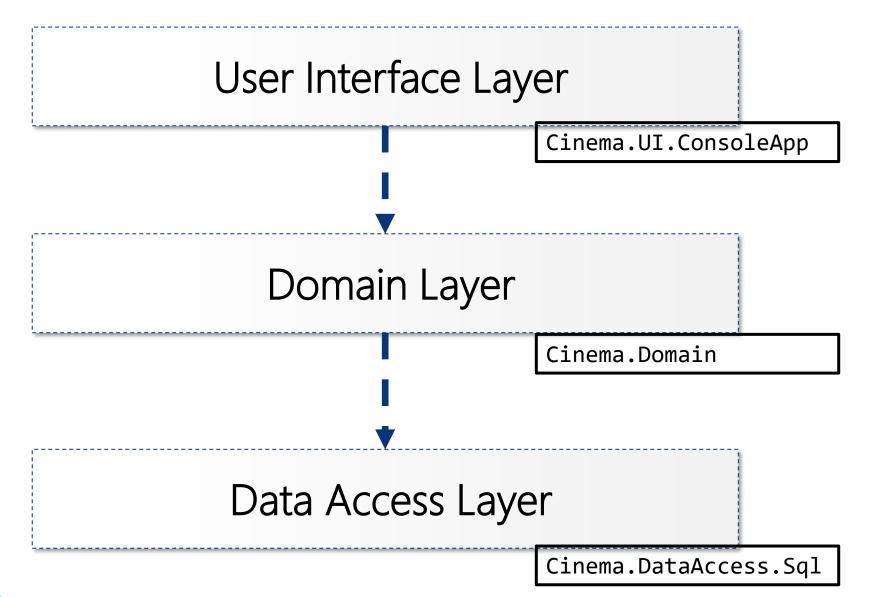
Abstractions should not depend upon details. Details should depend upon abstractions.

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## Beautiful Layered Design?







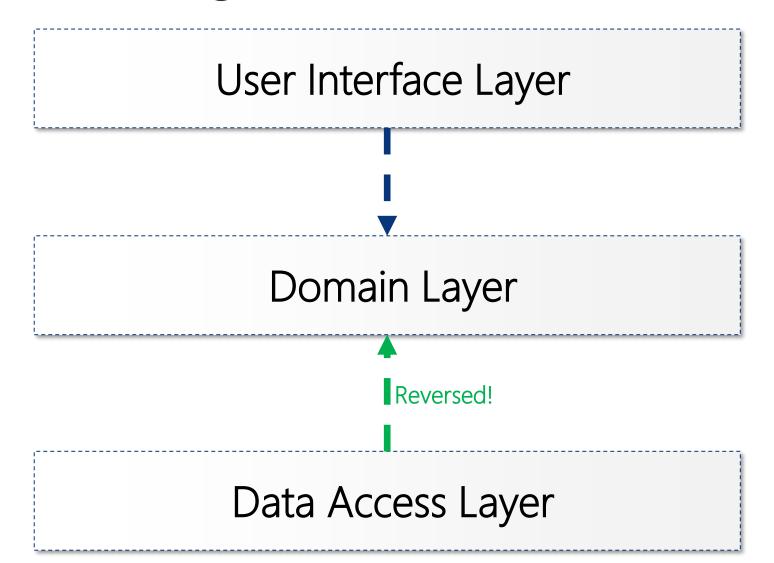
### Discussion: Evaluating the Design

- ▶ Can we change the UI Layer from Console to e.g. Web or WPF?
- Can we unit test the Domain Layer?
- Can we change the Data Access Layer?





# Better SOLID Design





#### Summary

- Introduction
- ▶ Remember SOLID?
- ▶ SOLID vs. Three-Layer Architecture





