

Domain Driven Design

An introduction

10 sections we will be covering:

- 1 Patterns vs Anti-patterns
- 2 The 'Domain Model' pattern
- 3 Using the Model to drive the design
- 4 Ubiquitous Language
- 5 Principles of OO design
- 6 Principles of DDD
- 7 Expressing a Model in software
- 8 Common Architecture Layering
- 9 Documentation
- 10 Sources / Further reading

Patterns vs Anti-patterns

Commonly reoccurring problems
have commonly reoccurring solutions.

The ‘Domain Model’ pattern

PoEAA Definition:

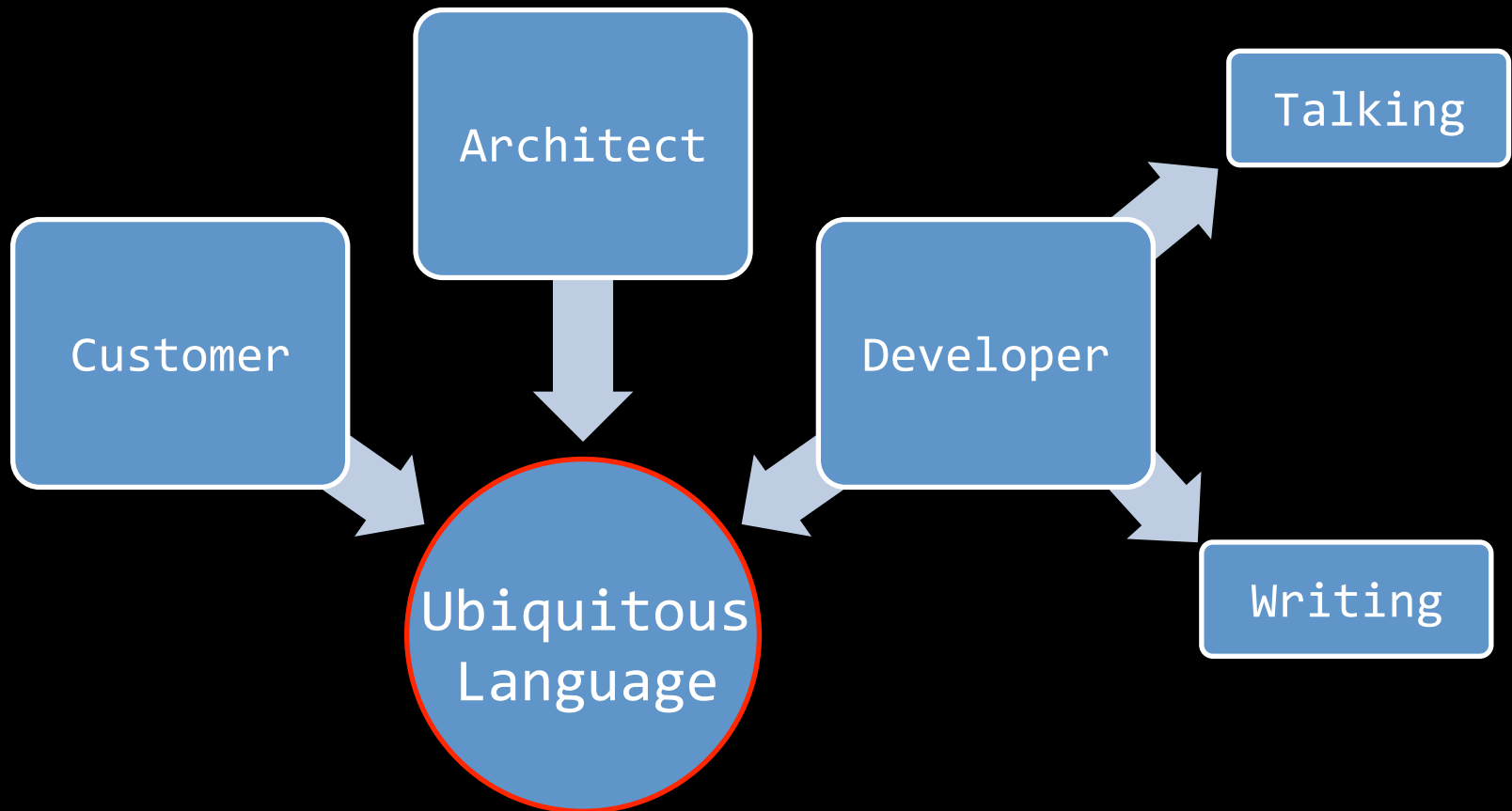
“An object Model that incorporates behavior and data”

Using the Model to drive the design

4 fundamentals:

- 1 There can be only one!
- 2 Described using the same (Ubiquitous) Language
- 3 Use proper OO design to make a literal correspondence between model and code
- 4 The insight gained in analysis should feed into the design and vice versa

Ubiquitous Language



Principles of OO design

3 key concepts:

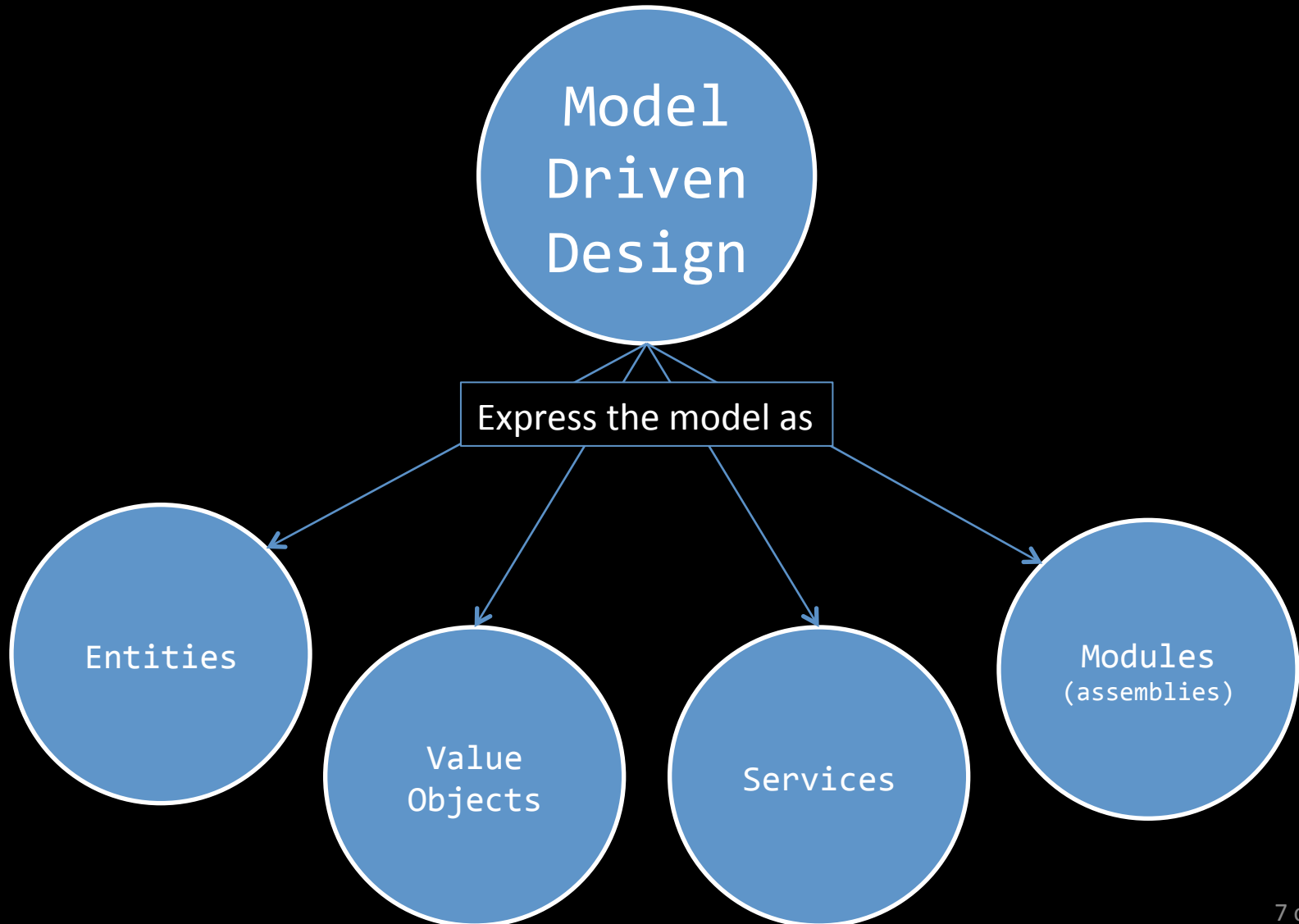
- 1 Each object should have a single responsibility (Cohesion)
- 2 Each object should have as little dependency on other objects as practical (Coupling)
- 3 Objects, variables and method names should all describe their purpose in the model

Principles of DDD

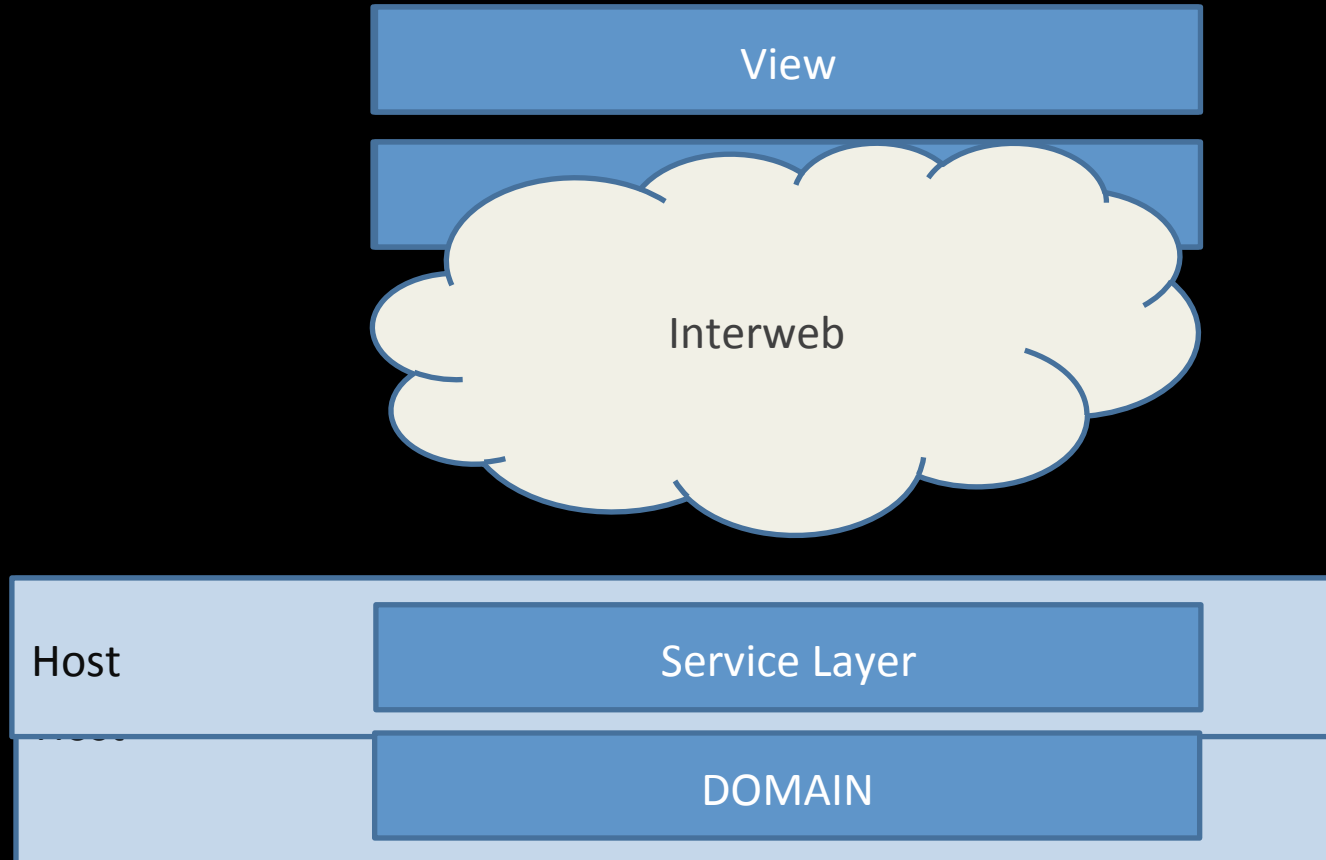
4 principles:

- 1 Isolate the domain
- 2 Think and code in BUSINESS objects, not computer objects
- 3 Create a SINGLE model for business people & developers to exchange ideas and concepts
- 4 Develop a knowledge rich model that is resilient (but not resistant) to change

C - Expressing a model in software



3/8: Common Architecture Layering



7/8: Documentation

4 principles:

- 1 Use informal diagrams to help focus discussion
- 2 A text document illustrated with simple diagrams is better than a diagram annotated with text
- 3 The model is not the diagram!
- 4 A document should never try to do what the code does well

8/8: Sources & Further reading

- Domain Driven Design – Evans
- Patterns of Enterprise Application Architecture – Fowler
- Analysis Patterns – Fowler
- Anti-patterns – Brown et al