# Design Patterns

## MSc Computer Science

Produced
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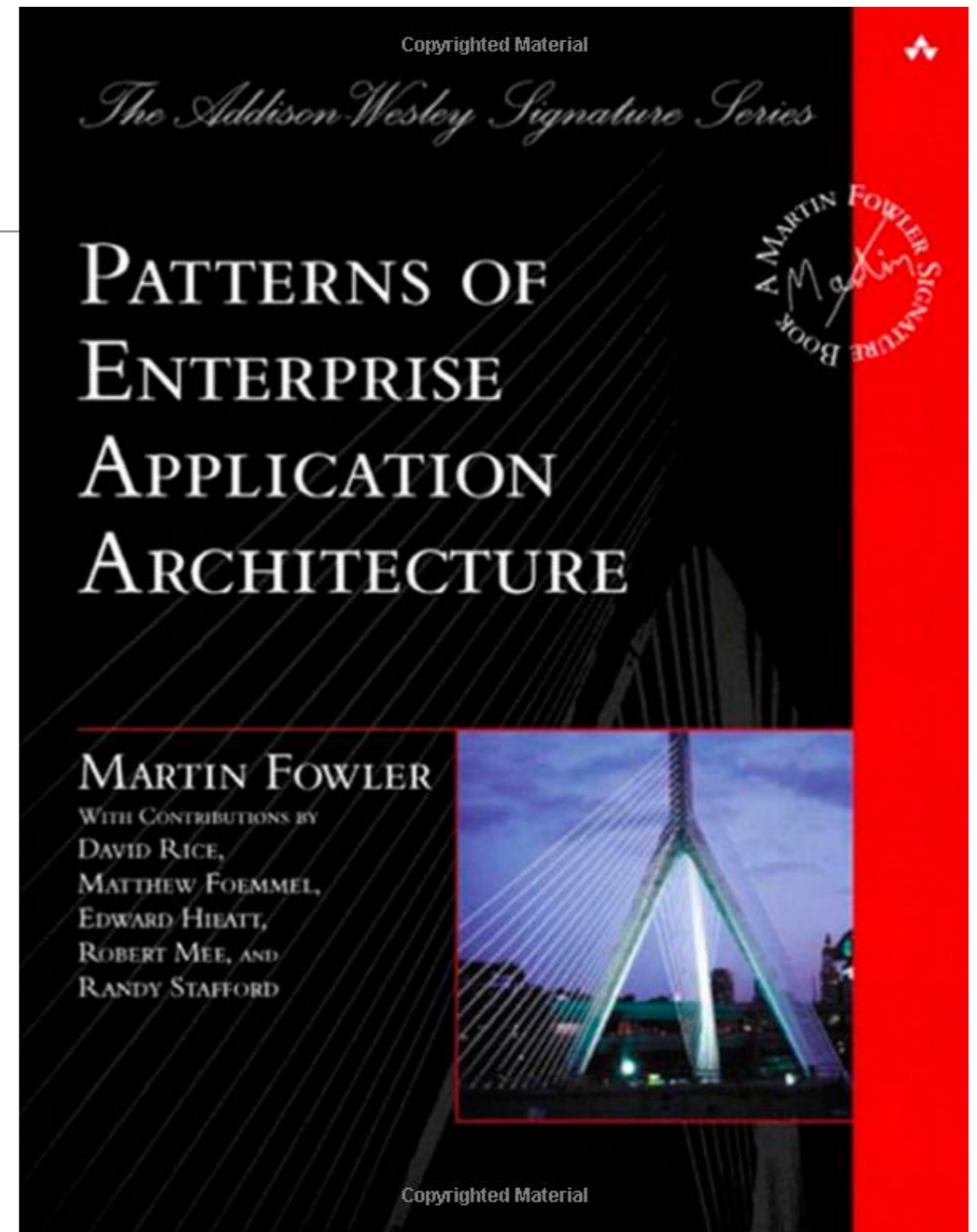INSTITIÚID TEICNEOLAÍOCHTA PHORT LÁIRGE
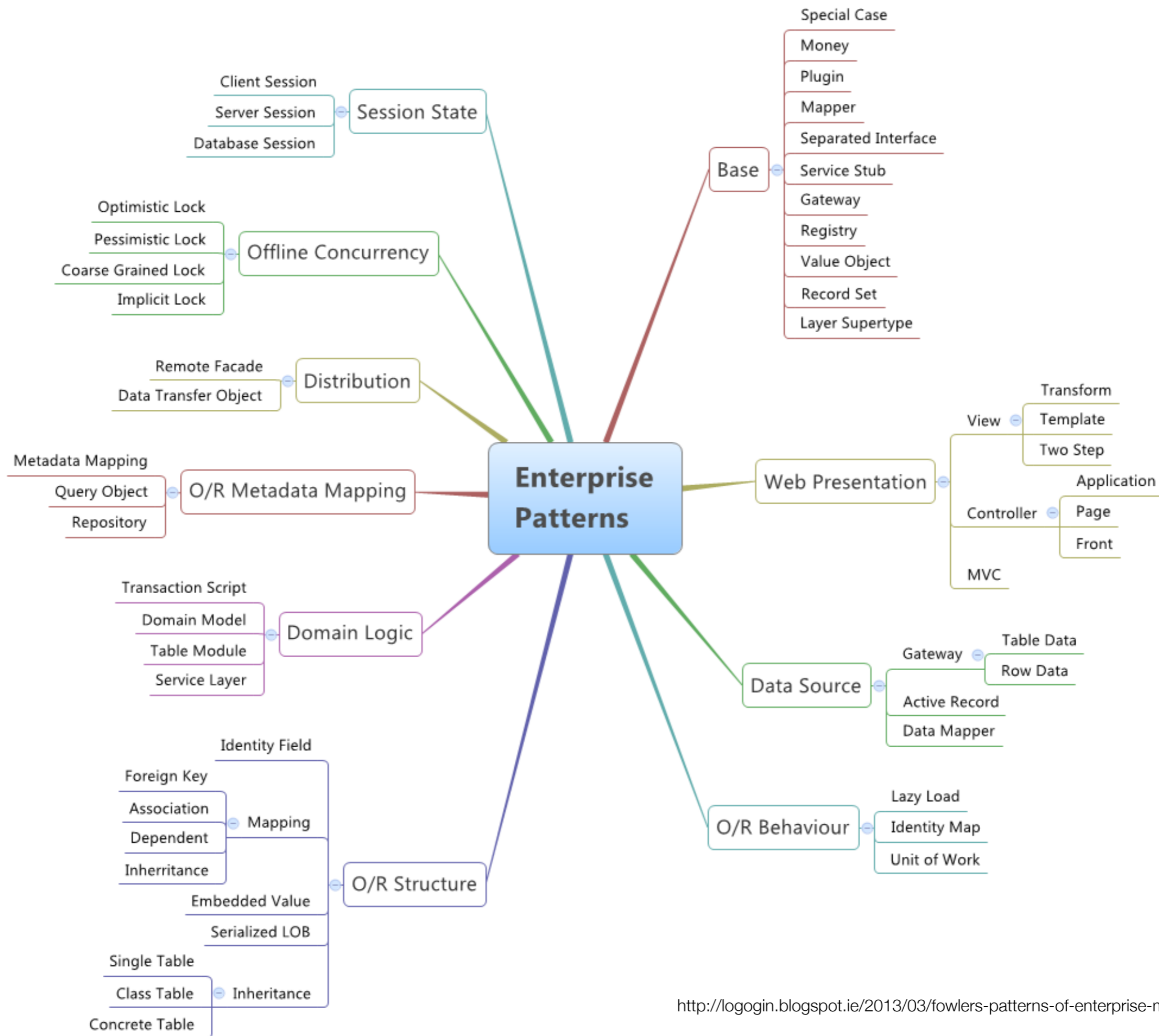
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# Enterprise & Distributed Systems Patterns

# Enterprise Catalog

- Published in 2003

- Comprehensive treatment of Enterprise applications patterns as understood at the time

- http://martinfowler.com/eaaCatalog/



PoEAA

# Enterprise Patterns

**Session State**
- Client Session
- Server Session
- Database Session

**Offline Concurrency**
- Optimistic Lock
- Pessimistic Lock
- Coarse Grained Lock
- Implicit Lock

**Distribution**
- Remote Facade
- Data Transfer Object

**O/R Metadata Mapping**
- Metadata Mapping
- Query Object
- Repository

**Domain Logic**
- Transaction Script
- Domain Model
- Table Module
- Service Layer

**O/R Structure**
- Mapping
  - Identity Field
  - Foreign Key
  - Association
  - Dependent
  - Inheritance
- Embedded Value
- Serialized LOB
- Inheritance
  - Single Table
  - Class Table
  - Concrete Table

**Base**
- Special Case
- Money
- Plugin
- Mapper
- Separated Interface
- Service Stub
- Gateway
- Registry
- Value Object
- Record Set
- Layer Supertype

**Web Presentation**
- View
  - Transform
  - Template
  - Two Step
- Controller
  - Application
  - Page
  - Front
- MVC

**Data Source**
- Gateway
  - Table Data
  - Row Data
- Active Record
- Data Mapper

**O/R Behaviour**
- Lazy Load
- Identity Map
- Unit of Work

http://logogin.blogspot.ie/2013/03/fowlers-patterns-of-enterprise-mind-map.html

# Pattern Categories

- Organizing Domain Logic

- Mapping to Relational Databases

- Web Presentation

- Concurrency

- Session State

- Distribution Strategies

# Review these Pattern Categories

- Organizing Domain Logic

- Mapping to Relational Databases

- Web Presentation

- Session State

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