Architectural Patterns

BRIAN LAMARCHE

COMPUTER SCIENCE 323 – SOFTWARE DESIGN

Structural Designs

Architecture is different from object design

Architecture focuses on sub-systems (or components) and their interfaces

Architectural patterns focus on the bigger picture

Layers of a System

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Presents visualization and audio from the data model for user experience.

Handles decision making and message passing. Modifies the data in the data model.

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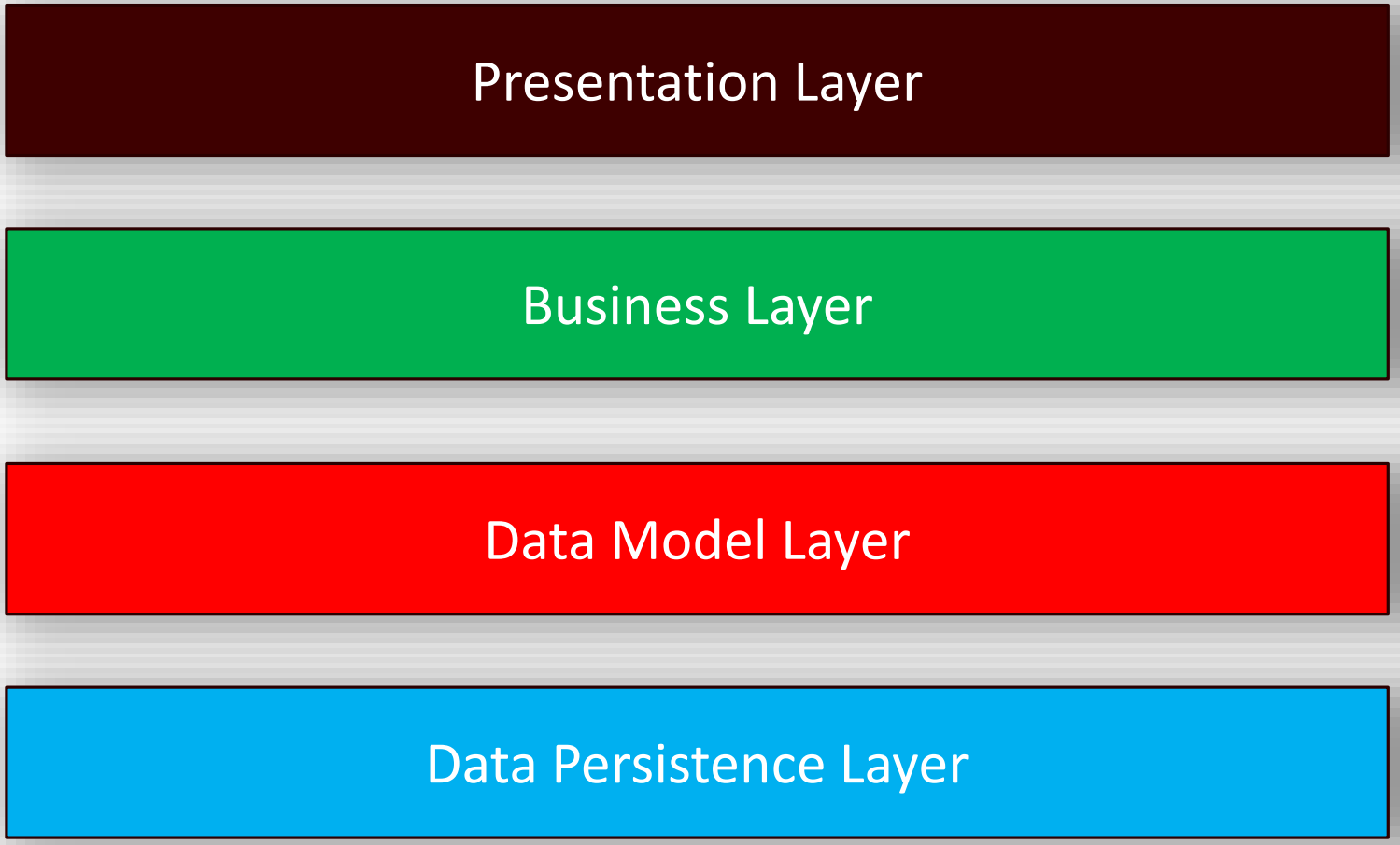
Handles decision making and message passing. Modifies the data in the data model.

Stores information about the application. Data structures etc.

Layers of a System



Video Feed

Target List

Manual Launcher Control

Ini

Web Cam (EMGU)

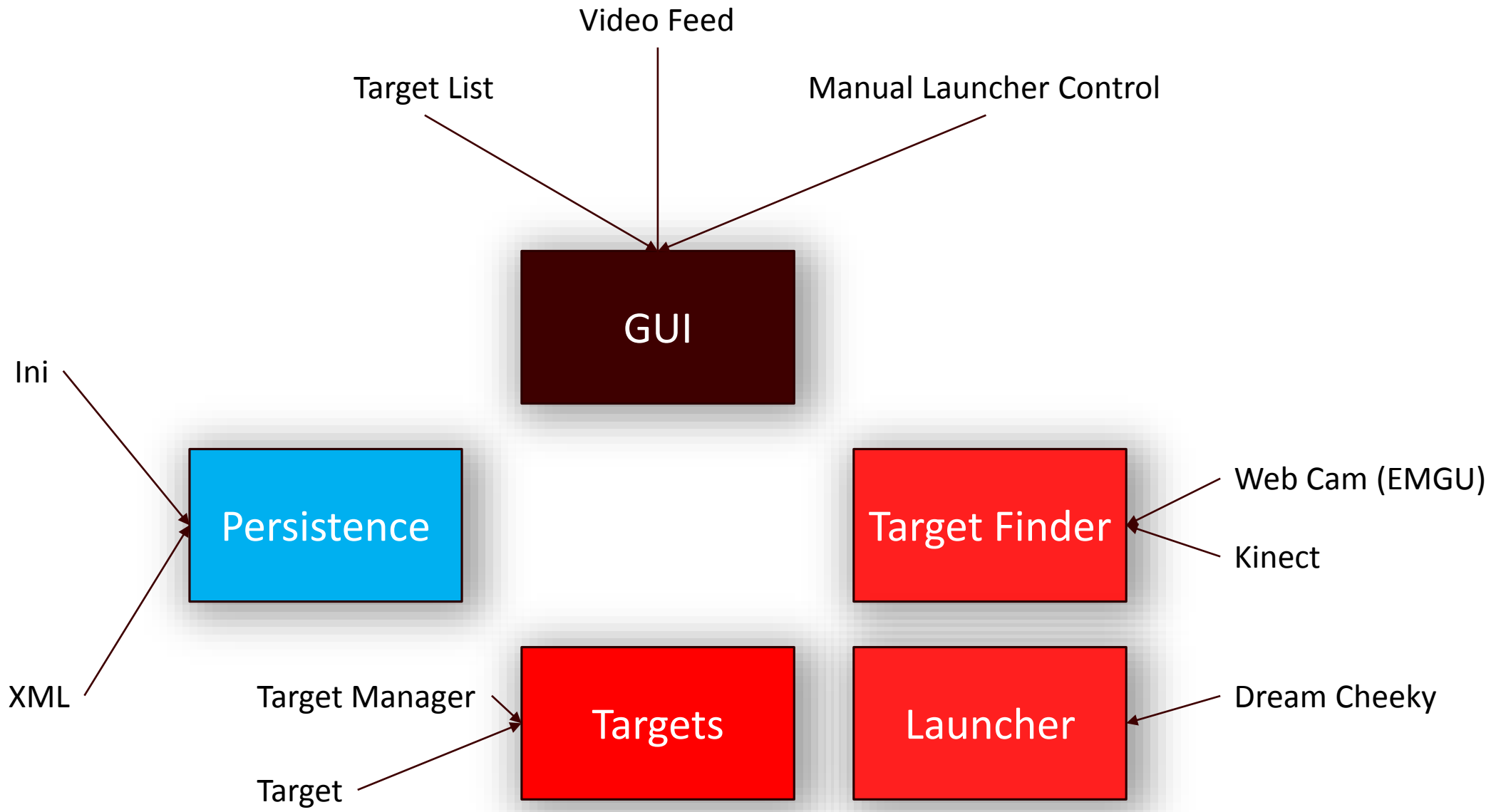
Kinect

XML

Target Manager

Dream Cheeky

Target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Persistence
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Kinect
XML
Target Manager
Target
Targets
Launcher
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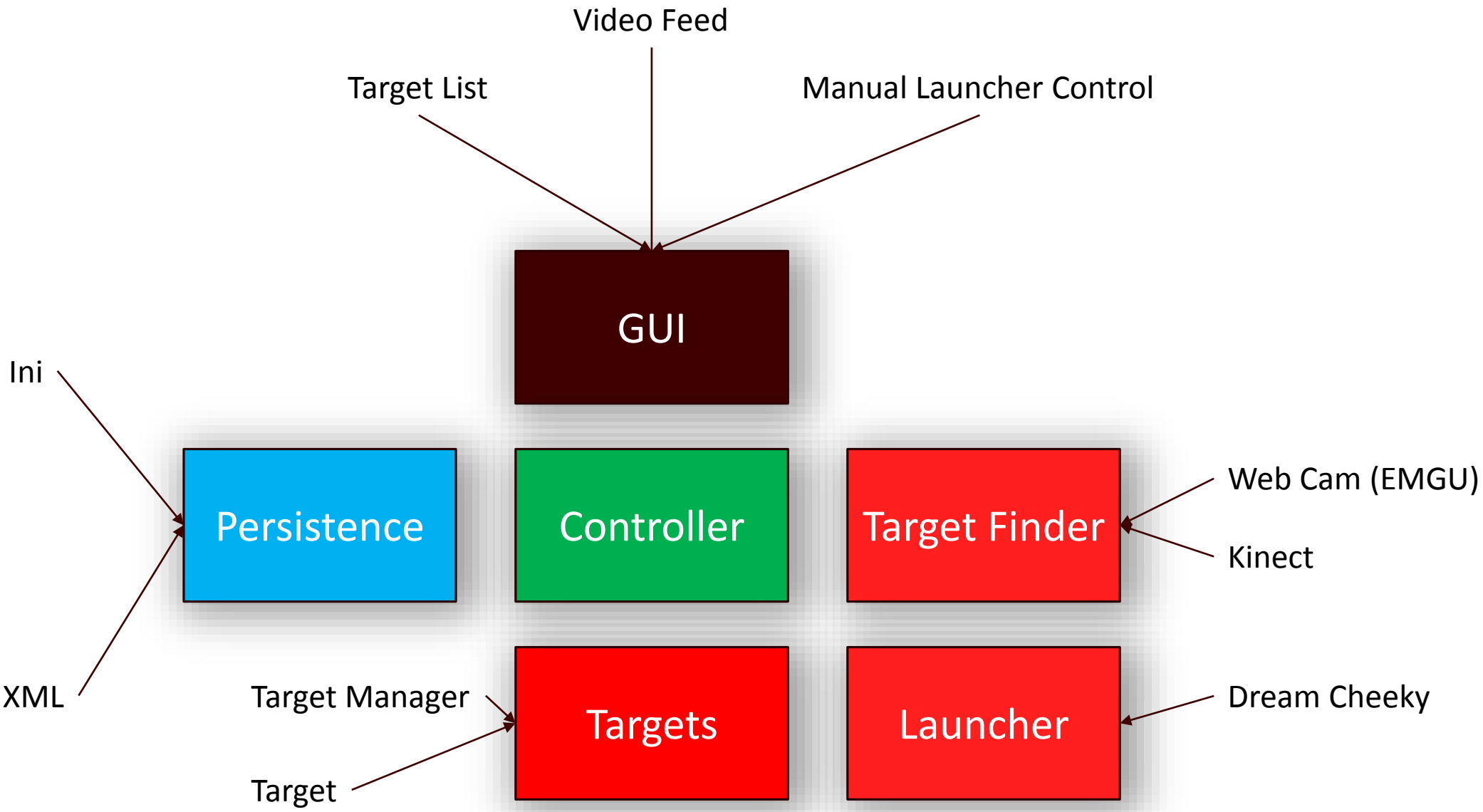
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Why Separate The System?

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Easier Testing

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Automated Testing

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Automated Testing

Reduced Coupling

Why Separate The System Into Components?

Easier Testing

Automated Testing

Reduced Coupling

Re-usability

Next Project Objectives

Threading

Patterns

- Mediator
- Observer
- Strategy
- Model View Controller

Modeling

- Package Diagrams
- Data Flow
- Component
- Activity
- Sequence