



CPSC 875

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Class 5 – Design Concept

Styles and patterns

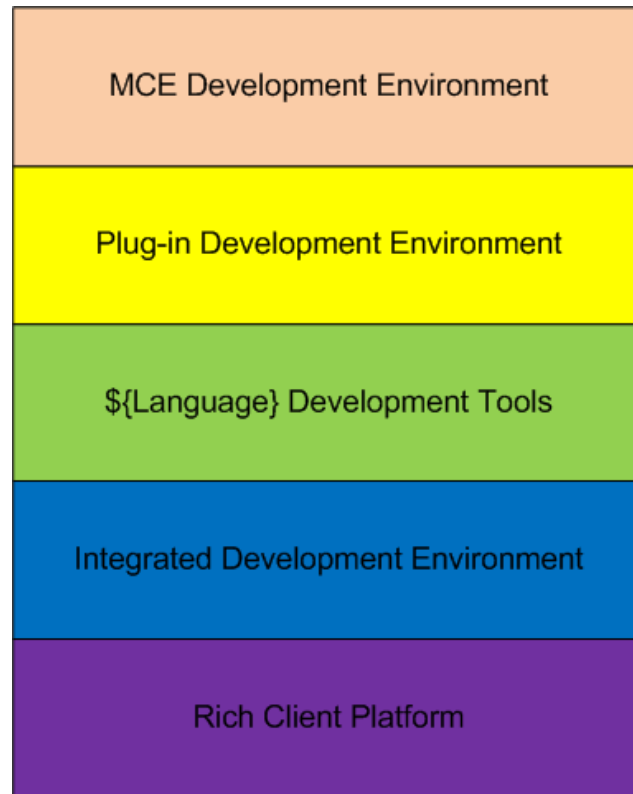
- An architecture style and a pattern are very similar
- A pattern may have more information, particularly more information about trade-offs among attributes.

Logical/Physical

- Separate processes
- Separate hardware
- Usually have multiple processes on single hardware element
- Seldom have single process on multiple hardware
- Start at the logical level
- Then conform to physical deployment environment

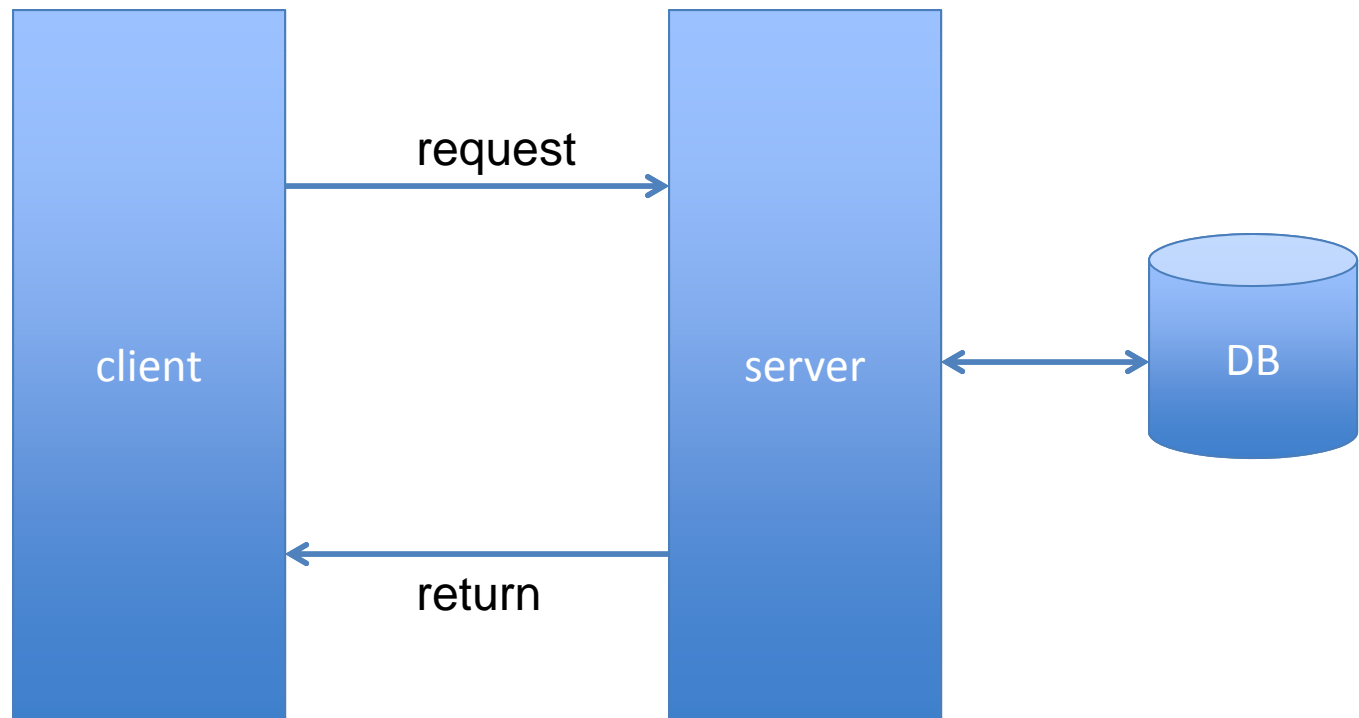
Ubiquitous architecture styles

- Layers



Ubiquitous architecture styles

- Client/Server



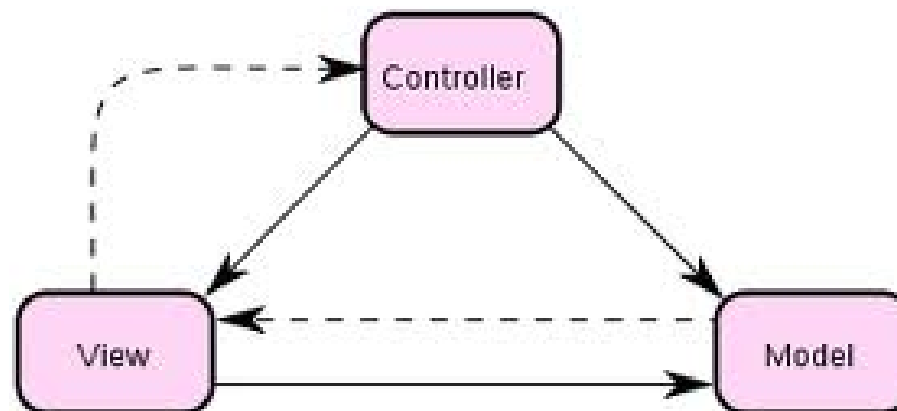
Master/Slave

- <http://hudson-ci.org/docs/HudsonArch-Execution.pdf>



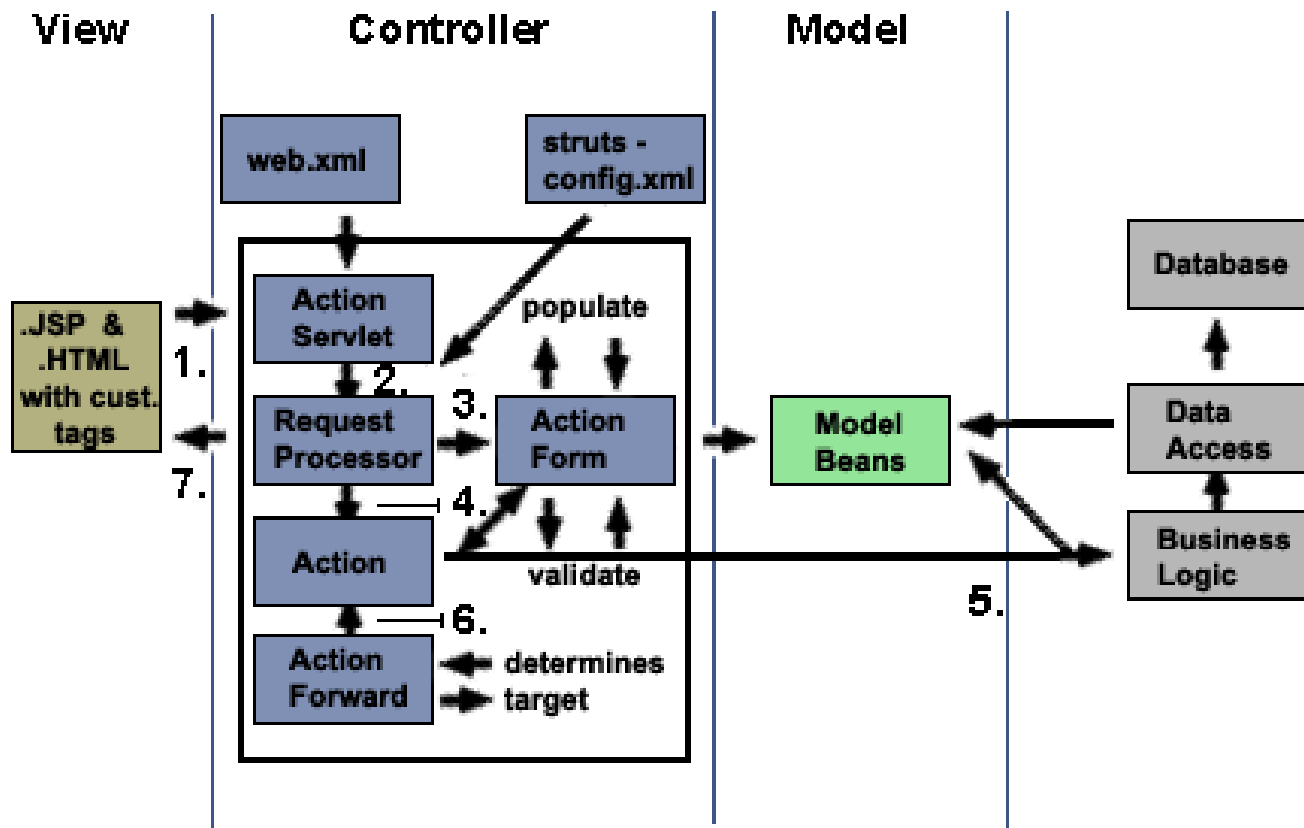
Model-View-Controller

- http://www.dossier-andreas.net/software_architecture/mvc.html
- As anti-pattern
 - <http://broadcast.oreilly.com/2008/10/mvc-as-anti-pattern.html>



MVC



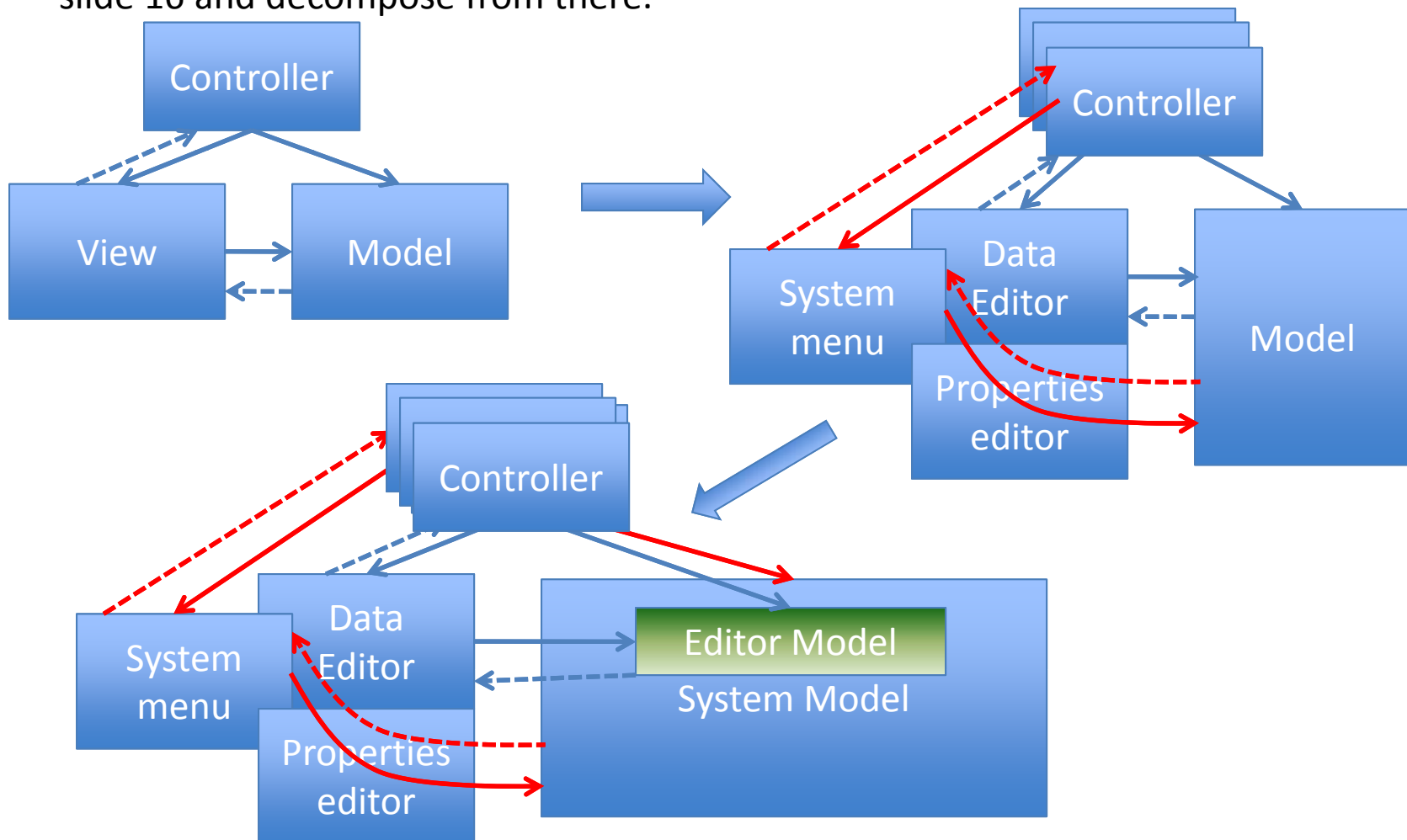


What are the essentials?

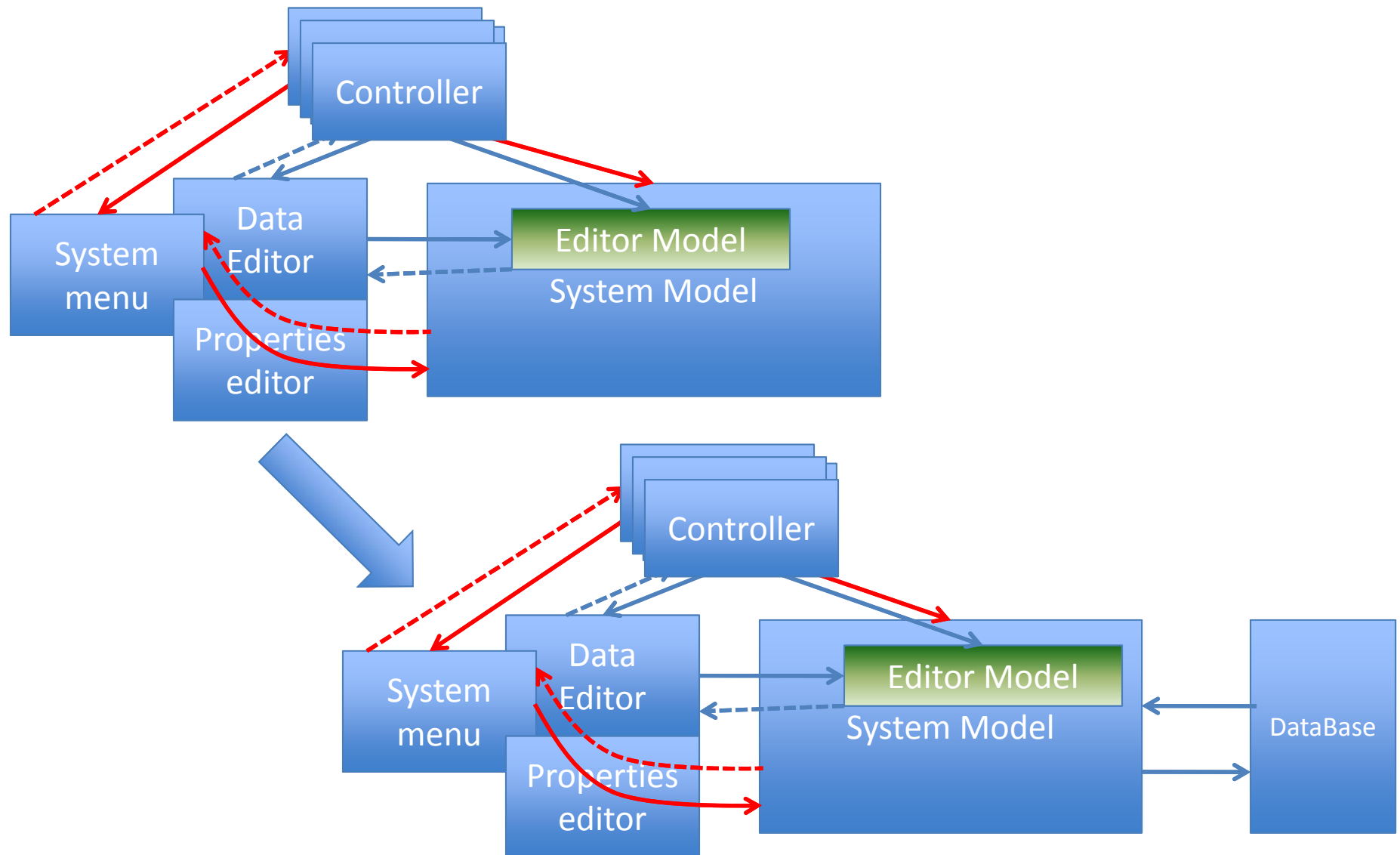
- Separation of data from presentation
 - Have multiple views
- Separation of control from presentation
 - Have multiple controllers
- Attributes
 - Extensible

Decomposition

- Our value computation is an interactive system. So we can start with MVC from slide 16 and decompose from there.



Extension



Pipeline

- <http://msdn.microsoft.com/en-us/library/ff963548.aspx>