MVC 1.0 - Hands-on LAB

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Part 1
Introduction

⬛ No Change to Plan
🟧 Propose to Drop
🟦 Propose to Add

Revised Java EE 8 Proposal

CDI 2.0 (JSR 365)
- Bootstrap API for Java SE
- Async events
- Observer ordering

JSON-B 1.0 (JSR 367)
- JSON <-> object mapping

JMS 2.1 (JSR 368)
- Flexible JMS MDBs
- Improved XA support

Servlet 4.0 (JSR 369)
- HTTP/2 support

JAX-RS 2.1 (JSR 370)
- Reactive enhancements
- Server-sent events
- Non-blocking I/O
- Client-side circuit breakers

MVC 1.0 (JSR 371)
- Action-based MVC framework

JSF 2.3 (JSR 372)
- Small-scale new features
- Community-driven improvements

Management 2.0 (JSR 373)
- REST-based APIs

JSON-P 1.1 (JSR 374)
- JSON Pointer and Patch
- Java Lambda support

Security 1.0 (JSR 375)
- Authentication/authorization APIs
- OAuth, OpenID support
- Secret management

Bean Validation 2.0 (JSR 380)
- Collection constraints
- Date/Time support
- Community-requested features

Configuration
- Standard for externalizing application configuration

Health Checking
- Standard for client-side health reporting

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Rationale for Proposed Changes

New Functionality

- Cloud apps make many remote REST calls. Need a **client-side circuit breaker** added to JAX-RS
- Need a **secret vault** because there's no way to do this today using **standards**
- **Need OAuth and OpenID** support because those technologies have rapidly emerged as standards
- Need **externalized configuration store** to make applications retargetable across environments
- Need basic **multi-tenancy** support to accommodate needs of more complex apps and offer higher density
- **Need standard way of health checking** Java-based apps

Dropped Functionality

- **JMS** is no longer very relevant in cloud. Proposed to stay at JMS 2.0 standard (vs. upgrading to JMS 2.1).
- Cloud apps often ship headless, making **MVC** largely irrelevant
- Current **Management** JSR not widely used

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JSR #371
Model-View-Controller (MVC 1.0) Specification
Transfer Ballot

Ballot duration: 2017-01-17 to: 2017-01-30

Special Vote Instructions:

Santiago Pericasgeertsen, and Manfred Riem, Co-Sped. Leads, representing Oracle, request a JSR Transfer Ballot of JSR 371: Model-View-Controller (MVC 1.0) Specification, to Ivar Grimstad, an individual.

@Controller
to the Community !

History

August 2014	First Proposal
September 2014	Approved by JCP Executive Committee
September 2014	Expert Group starts discussions
March 2015	EDR 1
October 2015	EDR 2
October 2016	JavaOne
January 2017	Transfer Ballot

History

January 2017
Transfer
Ballot

April 2017
Transfer Complete

May 2017
Christian
co-spec lead

May 2017
Apache License 2.0

June 2017
Infrastructure Complete

October 2017
eclipse

Recent Activities

Transfer approved by the Executive Committee ✓

Thanks!

Finalize Transfer ✓

Done!

New Infrastructure Setup ✓

Done!

Licensing ✓

Done!

Ongoing Activities

Formally move infrastructure from java.net √
Done!

Bring in Christian Kaltepoth as co spec-lead √
Done!

Revise the Schedule √

Adopt-a-JSR

Apache License 2.0

Adopt-a-JSR

Write Code!

Give us Feedback

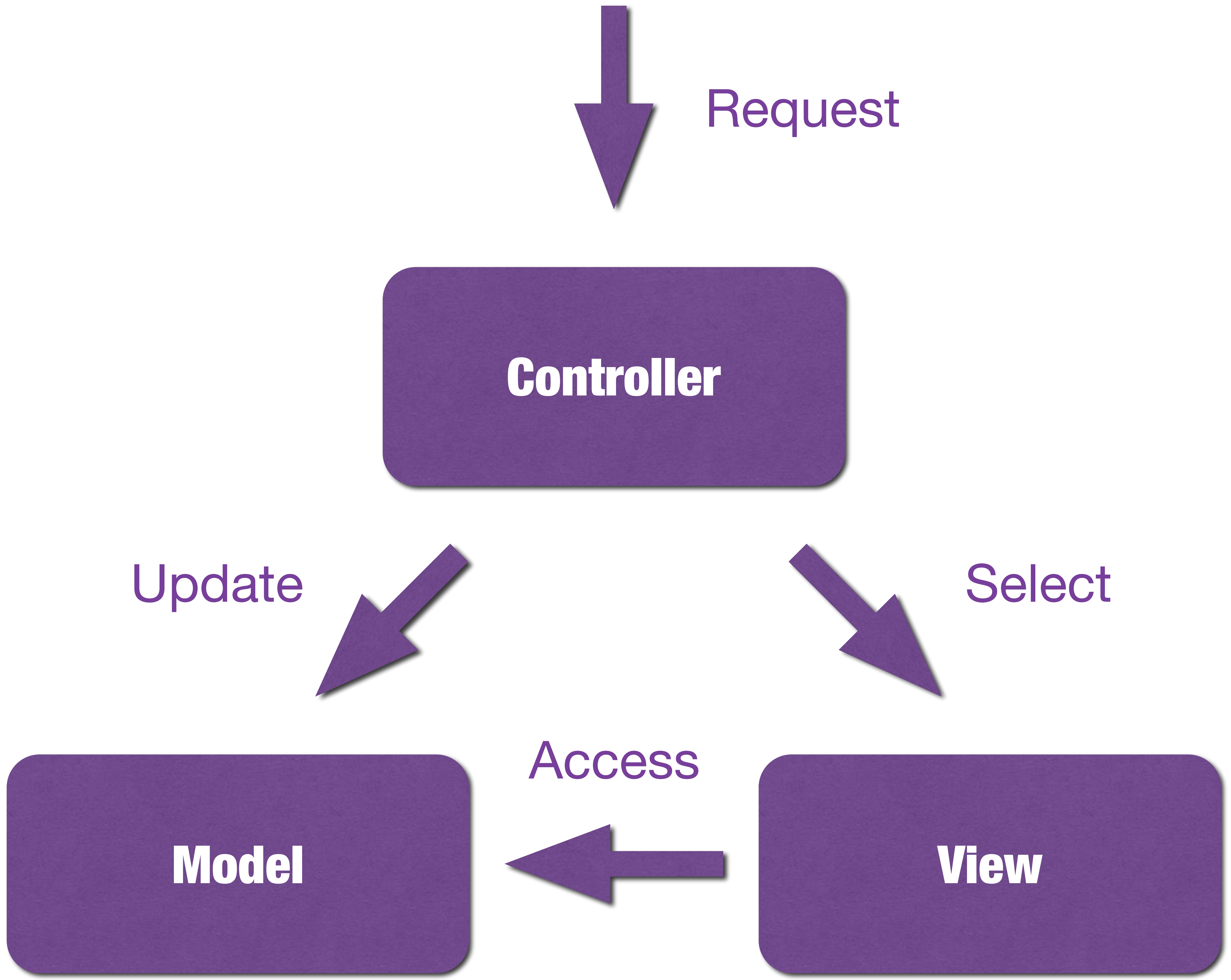
Blog

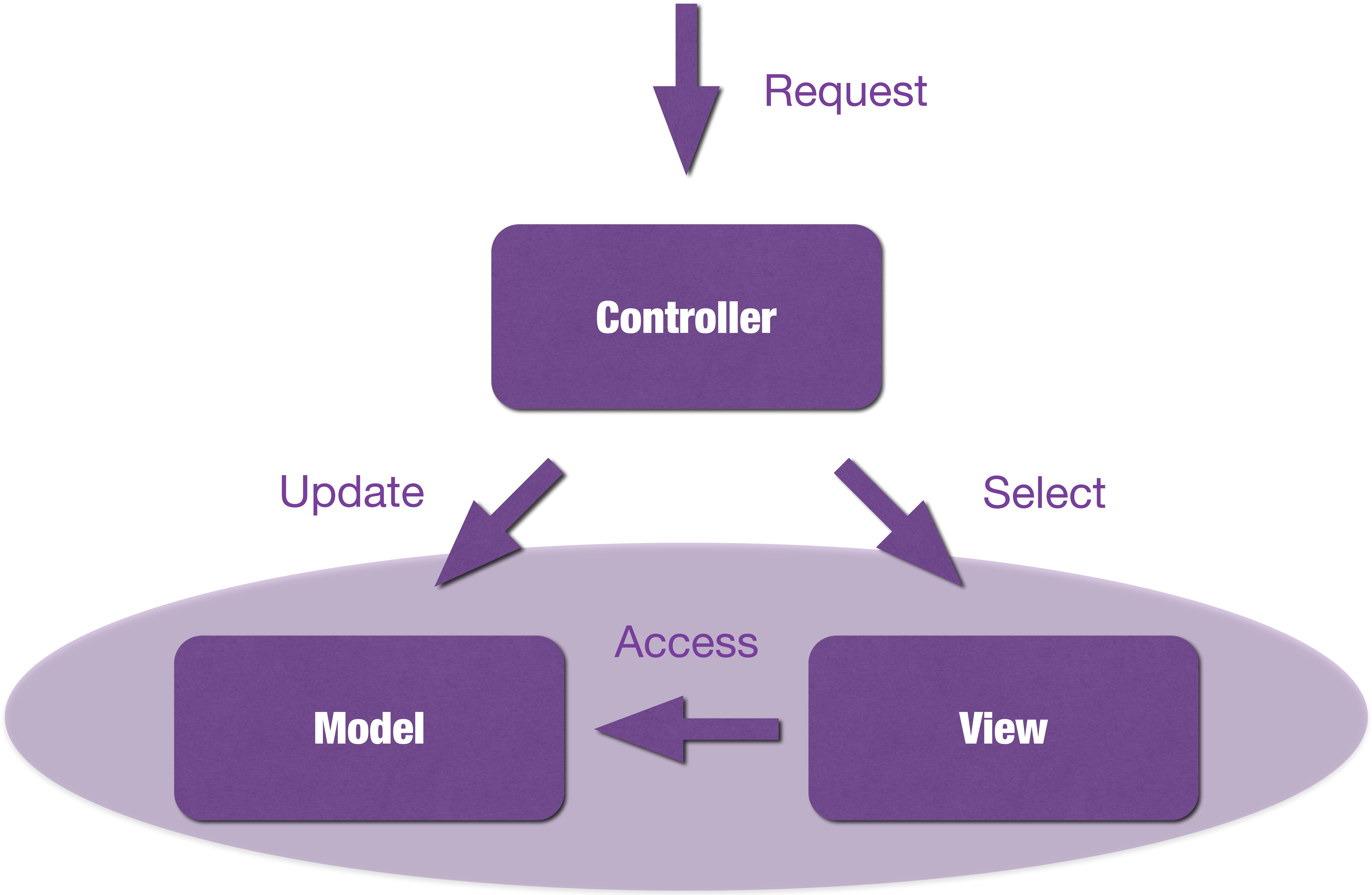
Tweet

Create a Logotype √

MVC 1.0 - The Basics

Action-based MVC


Request
Controller
Update
Select
Access
Model
View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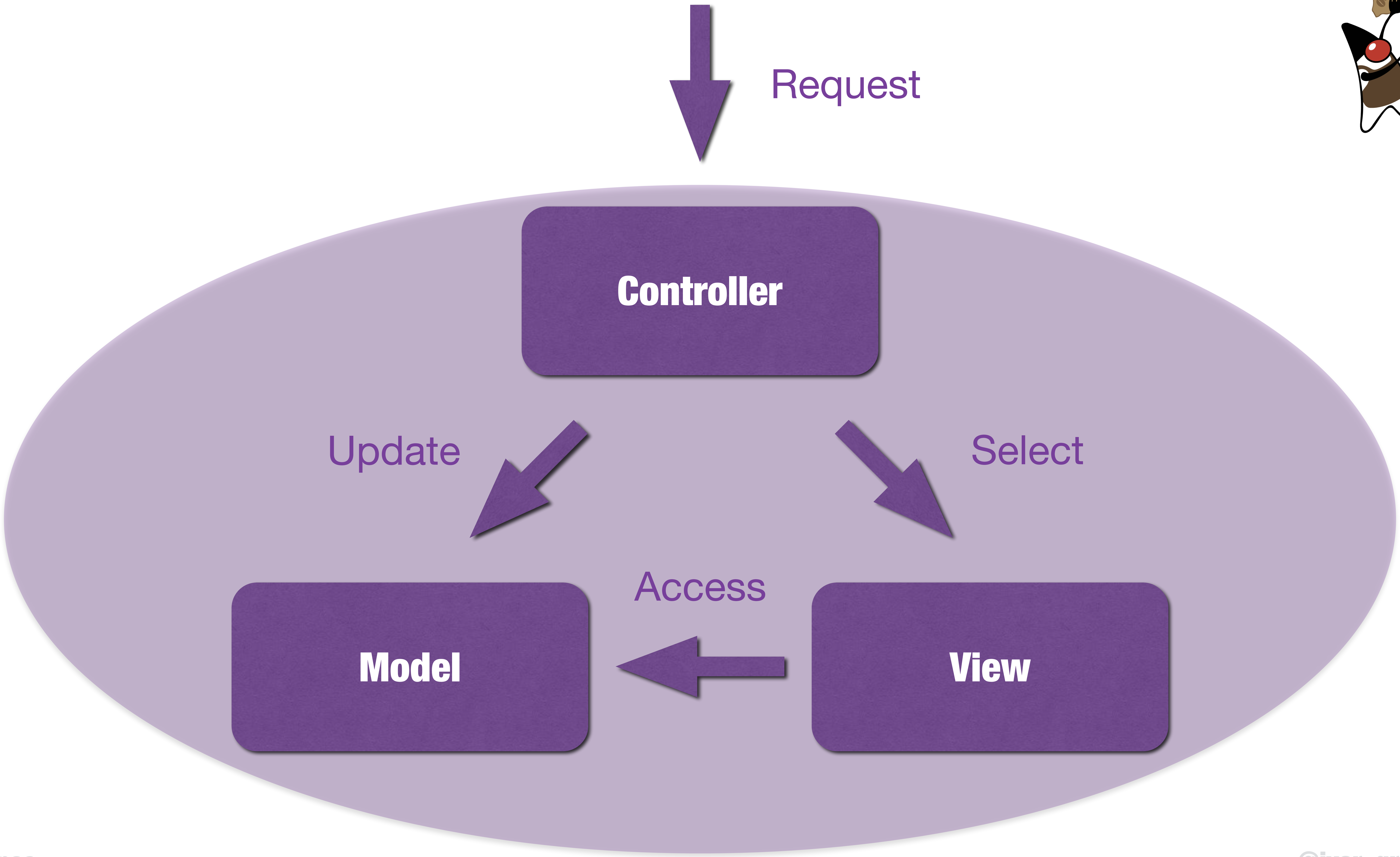
Request
Controller
Update
Select
Access
Model
View

Existing Java EE Technologies

Key Decisions

Key Decision

Build MVC 1.0 on top of JAX-RS

Controllers

Controller

```
public class HelloController {




}
```

Controller

```
@Path("hello")
public class HelloController {






}
```

Controller

```
@Controller
@Path(“hello”)
public class HelloController {









}
```

Views

View

```
@Controller
@Path("hello")
public class HelloController {






}
```

View

```
@Controller
@Path("hello")
public class HelloController {




   @GET
   public String hello() {
      return "hello.jsp";
   }
}
```

View

```
@Controller
@Path(“hello”)
public class HelloController {




   @GET
   public Response hello() {
      return Response.status(OK).entity(“hello.jsp”).build();
   }
}
```

View

```
@Controller
@Path("hello")
public class HelloController {



   @View("hello.jsp")
   @GET
   public void hello() {

   }
}
```

View

```
@View("hello.jsp")
@Controller
@Path("hello")
public class HelloController {





   @GET
   public void hello() {

   }
}
```

Models

Model

```
@View("hello.jsp")
@Controller
@Path("hello")
public class HelloController {





    @GET
    public void hello() {

    }
}
```

Model

```
@View("hello.jsp")
@Controller
@Path("hello")
public class HelloController {

   @Inject
   private Models model;

   @GET
   public void hello() {
     model.put("message", "Hello Cologne!");
   }
}
```

Model

```
<%@page contentType="text/html"
pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
   <head>
     <title>MVC 1.0 Hello Demo</title>
   </head>
   <body>
      <h1>Hello ${greeting}</h1>
   </body>
</html>
```

Part 1

https://github.com/ivargrimstad/mvc-hol

CYBERCOM GROUP

cybercom.com

@mvc_spec

@ivar_grimstad