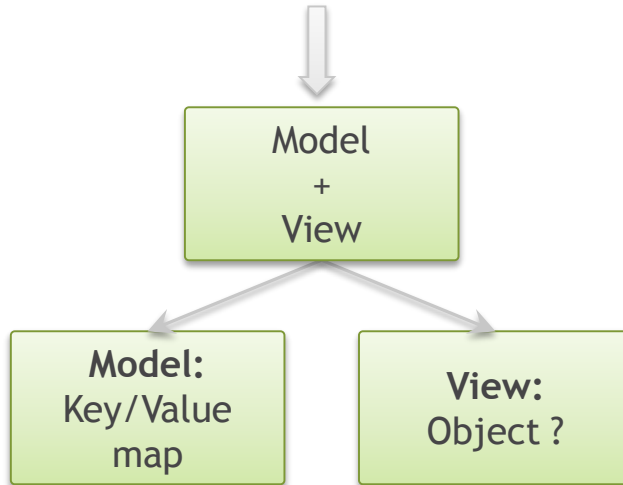# SPRING MVC

CONTROLLERS IMPLEMENTATION

MARCH, 2015

CONTROLLER CONCEPT

```java
public interface Controller {

    public ModelAndView handleRequest(
            HttpServletRequest request,
            HttpServletResponse response) throws Exception;
```

Model
+
View

Model:
Key/Value
map

View:
Object ?

SIMPLE CONTROLLER EXAMPLE

```java
@Controller
 public class CalcController {


    // [GET] http://host.com/example/calculate?first=123&second=456
    @RequestMapping("/calculate")
    public ModelAndView calculate(HttpServletRequest request) {
       String first = request.getParameter("first");
       String second = request.getParameter("second");

       int firstInt = Integer.parseInt(first);
       int secondInt = Integer.parseInt(second);

       ModelAndView mav = new ModelAndView("displaySum");
       mav.addObject("sum", Integer.toString(firstInt + secondInt))
       return mav;
    }
 }
```

ACCESSING REQUEST PARAMETERS

```java
@Controller
 public class CalcController {


    // [GET] http://host.com/example/calculate?first=123&second=456
    @RequestMapping("/calculate")
    public ModelAndView calculate(@RequestParam("first") int first,
                                  @RequestParam("second") int second) {
      ModelAndView mav = new ModelAndView("displaySum");
      mav.addObject("sum", Integer.toString(first + second))
      return mav;
    }
 }
```

URI TEMPLATE

```java
@Controller
 public class WeatherController {

    // [GET] http://host.com/example/380/Kyiv
    @RequestMapping(value = "/weather/{countryCode}/{cityName}/")
    public ModelAndView getWeather(@PathVariable("countryCode") int countryCode,
                                   @PathVariable("cityName") String cityName) {
      ModelAndView mav = new ModelAndView();
      // Fill in model the relevant information.
      // Select a view appropriate for country.
      return mav;
    }
 }
```

For more information about regex usage in path variables see:
http://docs.spring.io/spring/docs/3.2.x/spring-framework-reference/html/mvc.html#mvc-ann-requestmapping-uri-templates-regex

Handler arguments

- HttpSession / HttpServletRequest / etc.
- Spring's WebRequest / NativeWebRequest
- java.io.InputStream / java.io.OutputStream
- @ModelAttribute
- @PathVariable
- @RequestParam
- @RequestHeader
- @CookieValue
- @MatrixVariable

Handler return types

- ModelAndView
- Model / Map / ModelMap
- View
- String (view name, redirect, forward)
- @ModelAttribute
- void

THANK YOU!

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