



Using VueJS with Moodle

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Who am I?

- Guy Thomas
 - Developing Moodle code since 2004
 - Contractor (Citricity Ltd)
 - Working with Titus Learning (UK Moodle partner).
- I AM NOT A VUEJS EXPERT!

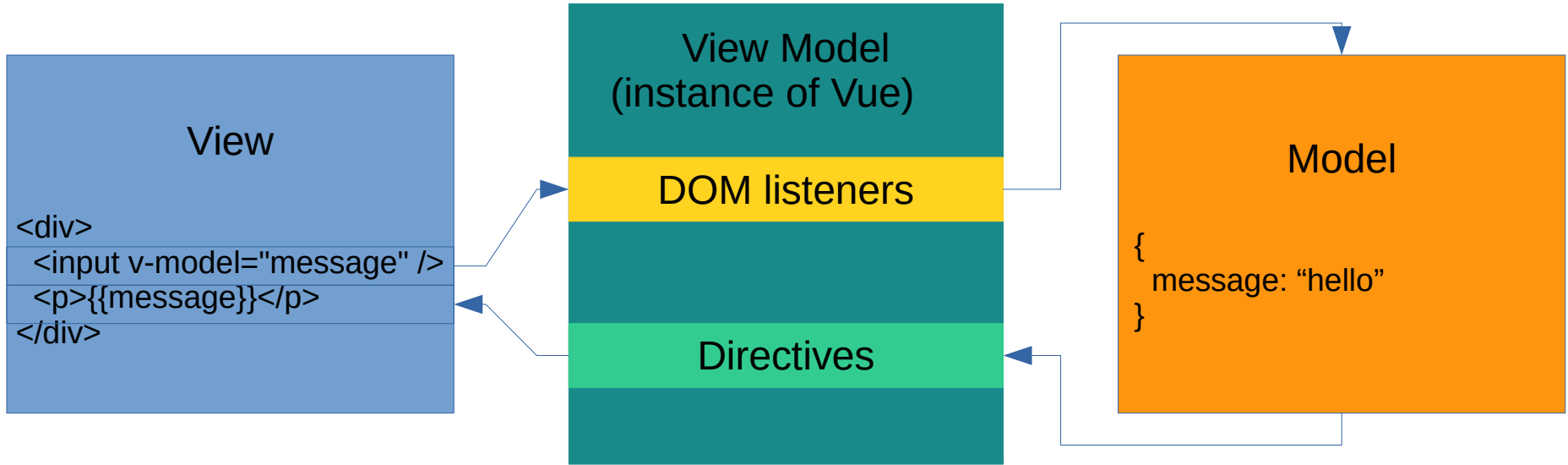


What is VueJS?

- JS Framework
- Progressive framework / Incrementally adoptable
 - You can start off small – e.g: Just to provide reactivity between data and view template. You can add in routing, or a “store” as and when you need it.
- MVVM framework
 - Data binding can be two way



MVVVM





Why VueJs?

- Incrementally adoptable
 - Fits well into existing projects
- Plenty of VueJs components available
- You want to build an interface with many interactions between data and presentation layer
- You want to build a single page experience
- Good documentation



VueJs V Mustache + JS

- Mustache templates + JS
 - Still a very important and useful tool.
 - Perfectly good for static rendering (non reactive).
 - PHP support – backend rendering.
 - Template overrides.
- VueJS
 - A better fit for reactivity.
 - Code can be simpler V Mustache + JS (e.g. no need for event delegation).
 - Better for your career? Better for Moodle HQ / partners?
 - Leverage existing components.
 - Backend rendering????
 - Vuex state management



VueJs V Mustache + JS

- Templates / Partial V Components
 - Mustache templates do not have some restrictions that VueJS has – e.g. single root element.
 - A VueJS SFC (single file component) contains the template, script and styles for the component in once place!

```
<template lang="pug">
...
</template>
<script lang="ts">
...
</script>
<style lang="scss">
...
</style>
```



VueJS – Problems

- Issues with asynchronous operations.
 - In Angular we have the async pipe. This isn't present with VueJS out of the box.
 - Example problem: Writing a strings filter.
 - Component lifecycle hooks can't be forced to wait for async tasks to complete.
 - Example problem: We want to do some initialising work in the 'beforeCreate' hook. Loading AMD modules, strings, etc..



VueJS + Moodle in the wild.

- https://github.com/kulmann/moodle-mod_millionaire
- http://github.com/kulmann/moodle-mod_philosophers
- https://github.com/lucaboesch/moodle-local_differentiator



Moodle DACH 2019

- Differentiator plugin
 - Luca Bösch
 - Martin Gauk
 - Christian Wolters
 - Hannes Laimer

The screenshot shows the 'Edit a goal' interface in Moodle. At the top, it says 'Dashboard / Differentiator'. Below that, 'Learning goal 1' is displayed. The main text reads: 'Students will remember the big idea of the film industry using a textbook and create an essay in groups of three.' Below this text are tabs for 'Thinking Skill', 'Content', 'Resources', 'Products', and 'Groups'. A grid of thinking skills is shown, with columns for Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating. Each column contains a list of specific skills. At the bottom, there are 'Save' and 'Cancel' buttons. A footer bar at the very bottom says 'Moodle Docs for this page'.

Remembering	Understanding	Applying	Analyzing	Evaluating	Creating
Remember	Compare	Interpret	Execute	Reflect	Appraise
Repeat	Show	Solve	Review	Deduce	Assemble
Name	Explain	Visualise	Question	Select	Conceive
Report	Choose	Present	Judge	Suggest	Extend
List	Describe	Measure	Contrast	Assess	Develop
State	Classify	Outline	Criticize	Evaluate	Design
Define	Substantiate	Implement	Analyse	Decide	Create
Exemplify	Summarise	Calculate	Diagnose	Justify	Construct
Recognise	Distinguish				

https://moodle.org/plugins/local_differentiator



VueJs via Webpack

- VueJS Demo – using webpack
 - https://github.com/MartinGauk/moodle-mod_vuejsdemo



VueJS via CDN

- Main plugin
 - https://github.com/gthomas2/moodle-local_vuejs
- Demo plugin
 - https://github.com/gthomas2/moodle-local_vuedemo



VueJS Devtools

- Available as an extension for Chrome / Firefox
 - **IMPORTANT NOTE:** It only works when you include the full dev version of Vue.

