คพ494

หัวข้อพิเศษทางวิทยาการคอมพิวเตอร์ 1

VUE.JS - BINDING

COURSE OUTLINE

- Introduction
  - instance, syntax, setup
- **Interact with DOM**
  - **binding, event, styling**
- v-if, v-for
- Module
- Component
- FORM
- Animations
- Http
- Routing
- Vue Native

https://vuejs-tips.github.io/cheatsheet/

CREATE VUE

- Vue Object/ Instance

```
var vm = new Vue({
  // options
})
```

- Data Example

```
  newTodoText: '',
  visitCount: 0,
  hideCompletedTodos: false,
  todos: [],
  error: null
```

- Vue Data Object

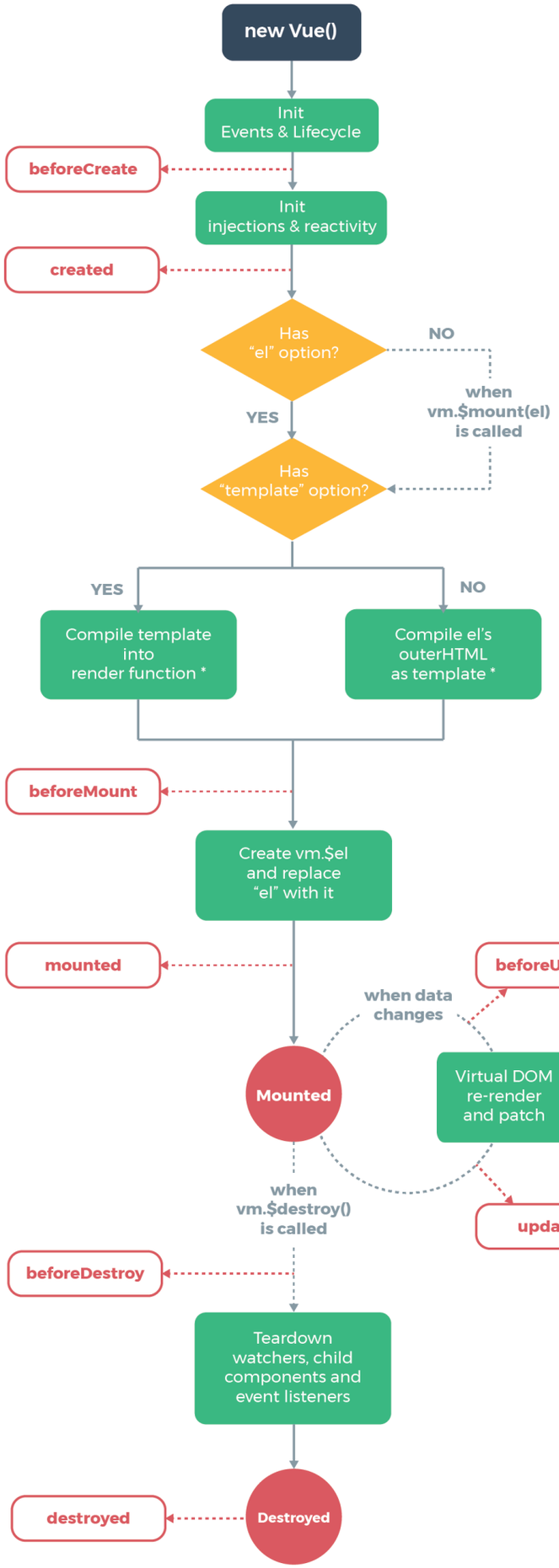
```
var app = new Vue({
  el: '#app',
  data: {
    message: 'Hello Vue!'
  }
})
```

CREATE VUE

- Vue Object/ Instance Example

```
// Our data object
var data = { a: 1 }

// The object is added to a Vue instance
var vm = new Vue({
  data: data
})
```



OUTPUT

- **Text** –> using the “Mustache” syntax (double curly braces)

```
<span>Message: {{ msg }}</span>
```

```
var app = new Vue({
  el: '#app',
  data: {
    msg: 'Hello Vue!'
  }
})
```

- **Raw HTML** –> v-html directive

```
 <p>Using mustaches: {{ rawHtml }}</p>
 <p>Using v-html directive: <span v-html="rawHtml"></span></p>
```

```
var app = new Vue({
      el: '#app',
      data: {
        rawHtml: '<span style="color:red">This should be red</span>'
      }
})
```

BINDING

- v-model = 2 way binding
- v-bind = binding into html attribute

```
    <h1>{{ greeting }}</h1>
    <input type="text" v-model="greeting">
    <button v-bind:disabled="isButtonDisabled">Button</button>
```

```
var app = new Vue({
    el: '#app',
    data: {
      greeting: 'Welcome to your Vue.js app!',
      isButtonDisabled:false
    }
})
```

- v-bind shorthand

```
<!-- full syntax -->
<a v-bind:href="url"> ... </a>
<!-- shorthand -->
<a :href="url"> ... </a>
```

BINDING – OBJECT

```
<div id="app">
   <h2>ID = {{customer.id}} </h2>
   <h2>Code = {{customer.code}} </h2>
   <h2>Name = {{customer.name}} </h2>
</div>
```

```
var app = new Vue({
     el: '#app',
     data: {
       customer: {
         id: 1,
         code: 'mju85',
         name: 'Maejo University',
         city: 'Chiangmai'
       }
     },
 })
```

METHODS

```
<script>
  var app = new Vue({
    el: '#app',
    data: {

    },
    methods: {
      methodName: function (url) {
          //……
      }
    }
  })
</script>
```

COMPUTED

- computed => ใช้เหมือน data มีเพียงการเรียกใช้ข้อมูลเท่านั้น
- ไม่สามารถทำการ binding กลับได้ getter method
- ไม่สามารถส่ง parameter เข้า function ได้
- คำนวนผลรวมเงินเดือนของพนักงานทั้งหมด, หาค่าเฉลี่ย, จัดรูปแบบการแสดงผลข้อมูล, ...

```
computed: {
        // get only
        aDouble: function () {
          return this.a * 2
        },
        // both get and set
        aPlus: {
          get: function () {
            return this.a + 1
          },
          set: function (v) {
            this.a = v - 1
          }
        }
      },
```

```
{{aPlus=3}} <br>
{{a}} <br>
{{aDouble}} <br>
```

https://vuejs.org/v2/api/#computed

https://vuejs.org/v2/guide/computed.html

EVENT HANDLING

- HTML Event –> https://www.w3schools.com/tags/ref_eventattributes.asp
  - ➡ Window Event
  - ➡ Form Events
  - ➡ Keyboard Events
  - ➡ Mouse Events
  - ➡ Drag Events
  - ➡ Clipboard Events
  - ➡ Media Events
  - ➡ Misc Events

EVENT HANDLING : V-ON

```
<div id="example">
  <button v-on:click="greet">Greet</button>
</div>
```

```
var vm = new Vue({
  el: '#example',
  data: {
    name: 'Vue.js'
  },
  // define methods under the `methods` object
  methods: {
    greet: function (event) {
      // `this` inside methods point to the Vue instance
      alert('Hello ' + this.name + '!')
      // `event` is the native DOM event
      alert(event.target.tagName)
    }
  }
})

// you can invoke methods in JavaScript too
vm.greet() // -> 'Hello Vue.js!'
```

EVENT HANDLING : V-ON +PARAMETER

```
<div id="example-2">
  <button v-on:click="say('hi')">Say Hi</button>
  <button v-on:click="say('what')">Say What</button>
</div>
```

```
new Vue({
  el: '#example-2',
  methods: {
    say: function (msg) {
      alert(msg)
    }
  }
})
```

- v-on Shorthand

```
<!-- full syntax -->
<a v-on:click="doSomething"> ... </a>

<!-- shorthand -->
<a @click="doSomething"> ... </a>
```

TIME TO PRACTICE

1. Icon Counter

2. **เกมส์ต่อสู้**
    - **รูปภาพตัวละคร** 2 **รูป** --> Player vs Monster **ความสูง** = 100 px
    - button –> Start, Attack, Special Attack
    - **กดปุ่ม** Start = **เริ่มเกมส์ใหม่ ค่า** health = 100
    - **ความสูงของรูปภาพมีขนาดตามค่า** health
    - **กดปุ่ม** Attack = random 3-10, **กดปุ่ม** Special Attack = random 10-20 **เพื่อไปลดค่า** health **ของ** monster
    - **แต่ละครั้งที่กดปุ่ม** Attack/ Special Attack **ให้** Monster **โจมตีกลับ** random 5-15 **เพื่อไปลดค่า** health **ของ** player
    - **ตรวจสอบผู้ชนะ** health <= 0

```
randomDamage: function(min, max) {
        return Math.max(Math.floor(Math.random() * max) + 1, min);
},
```