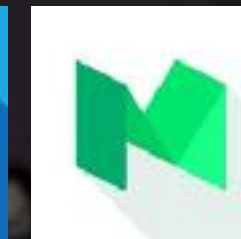


Interface interactions and animations

let's create a game with `Vue.js`



@krystalcampioni



Oberlo



shopify

Questions?



slido.com
#K10
0

WHAT ARE
WE GOING
TO BUILD?

YOU

100

MONSTER

100

ATTACK

SPECIAL ATTACK

HEAL

GIVE UP

REF: www.udemy.com/vuejs-2-the-complete-guide

WHAT ARE WE GOING TO BUILD?



REF: github.com/krystalcampioni/monster-slayer

FIRST OF ALL: WHAT IS VUE.JS?



Approachable

Versatile

Performant

Javascript

Library/Framework

FIRST OF ALL: WHAT IS VUE.JS?

HTML

```
1 <script src="https://unpkg.com/vue/dist/vue.js"></script>
2
3 <div id="app">
4   <input type="text" v-on:input="changeTitle">
5   <p v-text="title"></p>
6 </div>
```

CSS (SCSS)

JS

```
1 new Vue({
2   el: '#app',
3   data: {
4     title: 'Hello World!'
5   },
6   methods: {
7     changeTitle: function(event) {
8       this.title = event.target.value;
9     }
10  }
11 })
```


Hello World!

FIRST OF ALL: WHAT IS VUE.JS?

- `npm install -g vue-cli`
- `vue init template-name project-name`
- *e.g.* `vue init webpack myproject`

VUE CLI:

github.com/vuejs/vue-cli



1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It highlights the importance of using reliable sources and ensuring the accuracy of the information gathered.

3. The third part of the document discusses the challenges and limitations of data collection and analysis. It notes that while technology has advanced significantly, there are still many obstacles to overcome, such as data privacy concerns and the quality of the data itself.

4. The fourth part of the document provides a detailed overview of the current state of the field. It reviews recent research findings and identifies key areas for future study.

5. The fifth part of the document discusses the implications of the research for practice. It offers suggestions for how the findings can be applied to improve organizational performance and decision-making.

6. The sixth part of the document concludes with a summary of the main points and a final thought on the future of the field. It expresses optimism about the potential for continued growth and innovation in the years ahead.

7. The seventh part of the document provides a list of references for further reading. It includes a mix of academic journals, books, and online resources that are relevant to the topics discussed in the paper.

8. The eighth part of the document is a brief note of appreciation to the individuals and organizations that supported the research. It acknowledges their contributions and expresses gratitude for their assistance throughout the project.





Welcome to Your Vue.js App

Essential Links

- [Core Docs](#)
- [Forum](#)
- [Gitter Chat](#)
- [Twitter](#)
- [Docs for This Template](#)

Ecosystem

- [vue-router](#)
- [vuex](#)
- [vue-loader](#)
- [awesome-vue](#)

THE .VUE FILE

```
<template>
  <div class="hello">
    <h1>{{ msg }}</h1>
  </div>
</template>

<script>
export default {
  name: 'HelloWorld',
  data () {
    return {
      msg: 'Hello World!'
    }
  }
}
</script>

<style>
  h1 {
    color: #2cd1af
  }
</style>
```

THE .VUE FILE

```
<template>
  <div class="hello">
    <h1>{{ msg }}</h1>
  </div>
</template>
```

NPM INSTALL PUG --SAVE-DEV

```
<script>
export default {
  name: 'HelloWorld',
  data () {
    return {
      msg: 'Hello World!'
    }
  }
}
</script>
```

NPM INSTALL SASS-LOADER NODE-SASS --SAVE-DEV

```
<style>
  h1 {
    color: #2cd1af
  }
</style>
```

```
<template lang='pug'>
  .hello
    h1 {{ msg }}
</template>
```

```
<script>
export default {
  name: 'HelloWorld',
  data () {
    return {
      msg: 'Hello World!'
    }
  }
}
```

```
<style lang='scss' scoped>
  h1 {
    color: $main-color;
  }
</style>
```

USING COMPONENTS

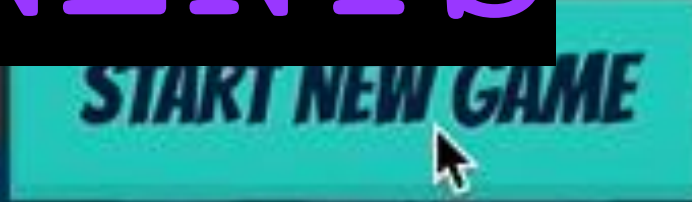


STATUS BAR COMPONENTS



CHARACTER COMPONENTS

ENVIRONMENT COMPONENT



APP.VUE FILE

```
<template lang="pug">
  #app
    .row-fixed-top
      StatusBar(:character='player' :hasMana='true')
      StatusBar(:character='enemy' :hasMana='false')

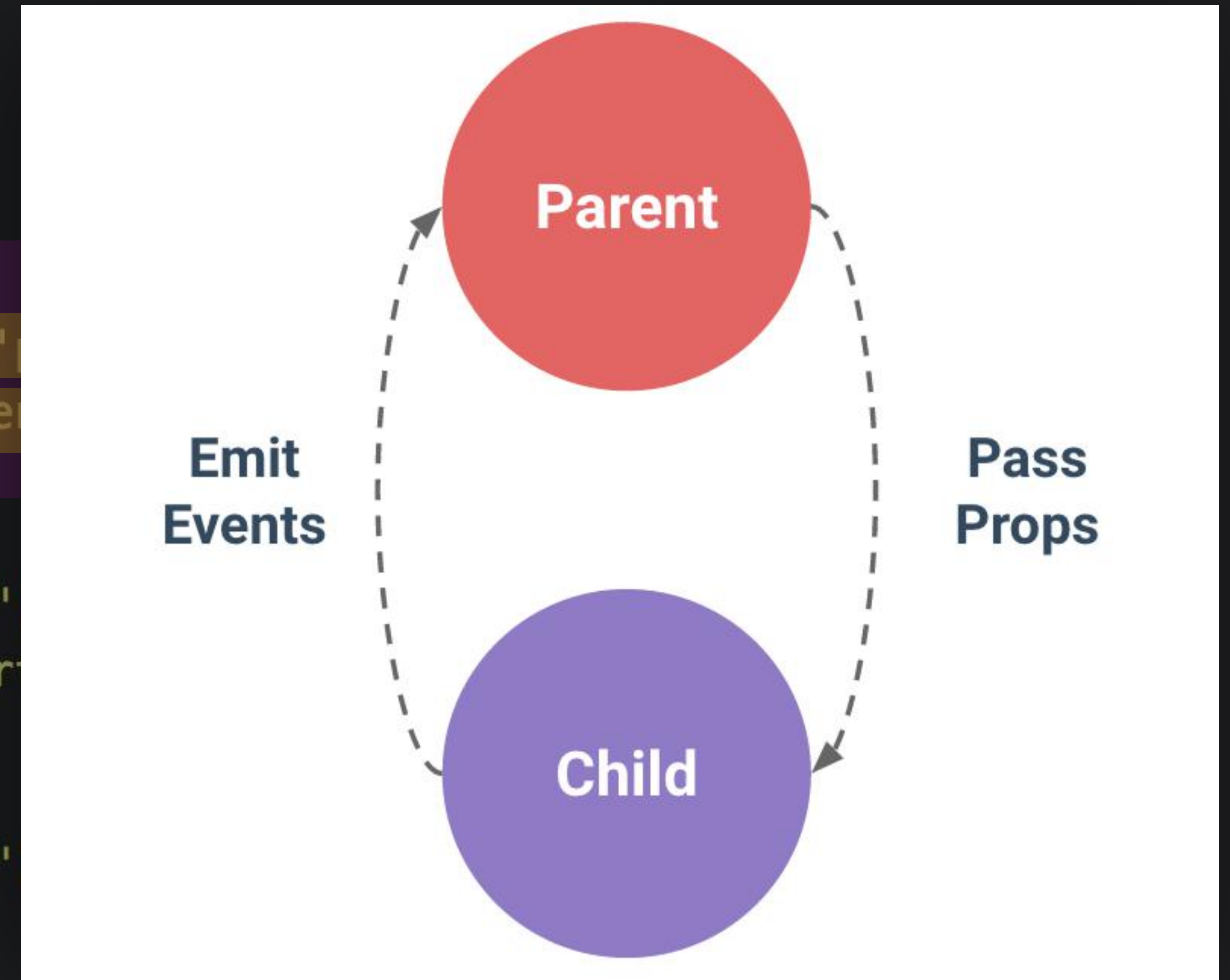
    Environment
      Character(characterName='viking' :animationName='player.animation')
      Character(characterName='enemy' :animationName='enemy.animation')

    transition(name="bounce" mode="out-in")
      .controls(v-if="!gameIsRunning" key="startButton")
        button.controls__button.-startGame(@click="startGame") START NEW GAME

      .controls(v-else key="gameControls")
        button.controls__button.-attack(@click="attack") ATTACK
        button.controls__button.-specialAttack(
          @click="specialAttack"
          :class='{ "-isDisabled" : player.mana !== 100}'
        ) SPECIAL ATTACK
        button.controls__button(@click="giveUp") Give up!
</template>
```

APP.VUE FILE

```
<template lang="pug">
  #app
    .row-fixed-top
      StatusBar(:character='player' :hasMana='true')
      StatusBar(:character='enemy' :hasMana='false')
    Environment
      Character(characterName='viking' :animationName='')
      Character(characterName='enemy' :animationName='e
    transition(name="bounce" mode="out-in")
      .controls(v-if="!gameIsRunning" key="startButton"
        button.controls__button.-startGame(@click="start
      .controls(v-else key="gameControls")
        button.controls__button.-attack(@click="attack"
        button.controls__button.-specialAttack(
          @click="specialAttack"
          :class='{ "-isDisabled" : player.mana !== 100}'
        ) SPECIAL ATTACK
        button.controls__button(@click="giveUp") Give up!
</template>
```




APP.VUE FILE

```
<template lang="pug">
  #app
    .row-fixed-top
      StatusBar(:character)
      StatusBar(:character)
    Environment
      Character(character)
      Character(character)
    transition(name="bound")
      .controls(v-if="!gameOver")
        button.controls__back
      .controls(v-else key="special")
        button.controls__special
        button.controls__special
        @click="specialAttack"
        :class='{ "-isDisabled": !gameOver }'
        ) SPECIAL ATTACK
      button.controls__back
</template>
```

```
<template lang="pug">
  .background
    ul.clouds
      li(v-for='n in 10')
        img.clouds__cloud( src="@/images/background/cloud.png" )
    .ocean
      .ocean__back-wave(v-for='n in 3')
    .ship
      slot
    .ocean__front-wave
</template>

<script>
export default {
  name: 'Environment'
}
</script>
```



APP.VUE FILE

```
<template lang="pug">
  #app
    .row-fixed-top
      StatusBar(:character)
      StatusBar(:character)
    Environment
      Character(character)
      Character(character)
    transition(name="bound")
      .controls(v-if="!gameOver")
        button.controls__
      .controls(v-else key="special")
        button.controls__
        button.controls__
          @click="specialAttack"
          :class="{ '-isDisabled': !isSpecialAttackReady }"
        ) SPECIAL ATTACK
        button.controls__
</template>
```

```
<template lang="pug">
  .background
    ul.clouds
      li(v-for="n in 10")
        img.clouds__cloud( src="@/images/background/cloud.png" )
    .ocean
      .ocean__back-wave(v-for="n in 3")
        slot(name='ocean')
    .ship
      slot(name='ship')
      .ocean__front-wave
</template>
<script>
export default {
  name: 'Environment'
}
</script>
```


ENVIRONMENT.VUE FILE

```
.clouds {
```

```
@keyframes front-wave {  
  0% {  
    background-position: 100vw 0;  
    transform: translate(0, 0) rotate(1deg);  
  }  
  50% {  
    background-position: 0 0;  
    transform: translate(10px, -20px) rotate(-5deg);  
  }  
  100% {  
    background-position: -100vw 0;  
    transform: translate(0, 0) rotate(1deg);  
  }  
}
```

```
<template lang="pug">  
  .background  
    ul.clouds  
      li(v-for='n in 10')  
        img.clouds__cloud( src='@/images/background/cloud.png')  
  .ocean  
    .ocean__back-wave(v-for='n in 3')  
  .ship  
    slot  
  .ocean__front-wave  
</template>  
  
<script>  
export default {  
  name: 'Environment'  
}
```

```
  animation-direction: normal,  
  animation-iteration-count: infinite;  
  animation-name: horizontal-scroll;  
  animation-timing-function: linear;  
  animation-duration: (5 * ($i * 2))+s;  
  opacity: (.25 * $i);  
  will-change: auto;  
}
```

```
@keyframes horizontal-scroll {  
  from { right: -100vw }  
  to { right: 100vw }  
}
```

APP.VUE FILE

```
<script>
import Character from '@components/Character'
import Environment from '@components/Environment'
import StatusBar from '@components/StatusBar'

export default {
  name: 'app',

  components: {
    Character,
    Environment,
    StatusBar
  },
}
```

APP.VUE FILE

```
data() {
  return {
    player: {
      animation: 'idle',
      imagePath: require(`@/images/viking/profile.jpg`),
      health: 100,
      mana: 0,
    },
    enemy: {
      animation: 'idle',
      imagePath: require(`@/images/enemy/profile.jpg`),
      health: 100,
    },
    gameIsRunning: false,
    animationDelay: 300,
  },
}
```

APP.VUE FILE

```
methods: {  
  updateAnimation(character, newValue, oldValue){  
  
  startGame() {  
  
  attack() {  
  
  increaseMana() {  
  
  specialAttack() {  
  
  heal() {  
  
  enemyAttacks() {  
  
  calculateDamage(min, max) {  
  
  checkWin() {  
  
},
```

THE GAME SEQUENCE



START NEW GAME

THE GAME SEQUENCE

```
.controls(v-else key="gameControls")
  button.controls__button.-attack(@click="attack") ATTACK
  button.controls__button.-specialAttack(
    @click="specialAttack"
    :class='{ "_isDisabled": player.mana == 100 }'
  ) SPECIAL ATTACK
  button.controls__button.-specialAttack
```



```
attack() {
  this.increaseMana();
  this.updateAnimation(this.player, 'idle', 'attacking');
  var damage = this.calculateDamage(5, 10);
  this.enemy.health -= damage;

  if (this.isGameOver()) {
    return;
  }
  this.enemyAttacks();
},
```

THE GAME SEQUENCE

```
.controls(v-else key="gameControls")
  button.controls__button.-attack(@click="attack") ATTACK
  button.controls__button.-specialAttack(
    @click="specialAttack"
    :class='{ "_isDisabled": player.mana == 100 }'
  ) SPECIAL ATTACK
  button.controls__button.-specialAttack
```



```
attack() {
  this.increaseMana();
  this.updateAnimation(this.player, 'idle', 'attacking');
  var damage = this.calculateDamage(5, 10);
  this.enemy.health -= damage;

  if (this.isGameOver()) {
    return;
  }
  this.enemyAttacks();
},
```

THE GAME SEQUENCE


```
attack() {  
  this.increaseMana();  
  this.updateAnimation(this.player, 'idle', 'attacking');  
  var damage = this.calculateDamage(5, 10);  
  
  increaseMana() {  
    if (this.player.mana < 100) {  
      this.player.mana += 25  
    }  
  },  
  this.enemyAttacks();  
},
```


THE GAME SEQUENCE

```
attack() {  
  this.increaseMana();  
  this.updateAnimation(this.player, 'idle', 'attacking');  
  var damage = this.calculateDamage(5, 10);  
  this.enemy.health -= damage;  
  updateAnimation(character, afterAnimation, currentAnimation){  
    character.animation = currentAnimation;  
  
    setTimeout(() => {  
      character.animation = afterAnimation;  
    }, this.animationDelay);  
  },  
},
```

THE GAME SEQUENCE

```
attack() {  
  this.increaseMana();  
  this.updateAnimation(this.player, 'idle', 'attacking');  
  var damage = this.calculateDamage(5, 10);  
  this.enemy.health -= damage;  
  this.enemyAttacks();  
},
```



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

THE GAME SEQUENCE

```
attack() {  
  this.increaseMana();  
  this.updateAnimation(this.player);  
  var damage = this.calculateDamage();  
  this.enemy.health -= damage;  
  
  if (this.isGameOver()) {  
    return;  
  }  
  this.enemyAttacks();  
},
```

```
data() {  
  return {  
    player: {  
      animation: 'idle',  
      imagePath: require(`@/images/viking/`),  
      health: 100,  
      mana: 0,  
    },  
    enemy: {  
      animation: 'idle',  
      imagePath: require(`@/images/enemy/`),  
      health: 100,  
    },  
    gameIsRunning: false,  
    animationDelay: 300,  
  }  
},
```



THE GAME SEQUENCE

```
attack() {  
  this.increaseMana();  
  this.updateAnimation(this)  
  var damage = this.calculateDamage();  
  this.enemy.health -= damage;  
  
  if (this.isGameOver()) {  
    return;  
  }  
  
  this.enemyAttacks();  
},
```

```
isGameOver() {  
  if (this.enemy.health <= 0) {  
    this.updateAnimation(this.enemy, 'dead', 'dying');  
    this.dialogTitle = 'You won!';  
    this.showDialog = true;  
    return true;  
  } else if (this.player.health <= 0) {  
    this.updateAnimation(this.player, 'dead', 'dying');  
    this.dialogTitle = 'You lost!';  
    this.showDialog = true;  
    return true;  
  }  
  return false;  
}
```

THE GAME SEQUENCE



START NEW GAME

CHARACTER.VUE FILE

```
<template lang="pug">
  .character(:style='inlineStyle')
</template>
```

```
<script>
export default {
  name: 'Character',

  props: {
    characterName: String,
    animationName: String
  },

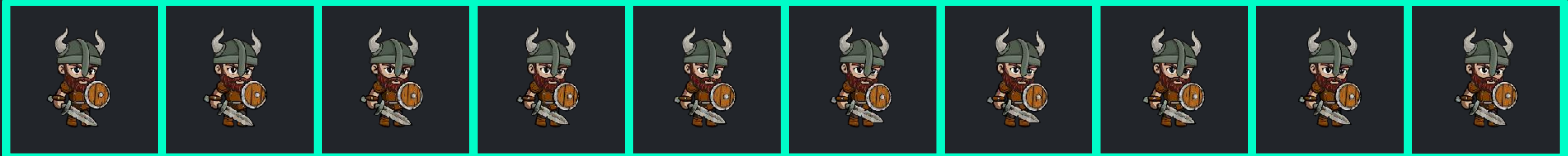
  computed: {
    inlineStyle() {
      return `background-image: url(${this.characterImagePath}); animation-name: ${this.animationName}`
    },
    characterImagePath() {
      return require(`@/images/${this.characterName}/animations.png`)
    }
  },
}
</script>
```

SPRITE ANIMATIONS



background-size: 5345px

SPRITE ANIMATIONS

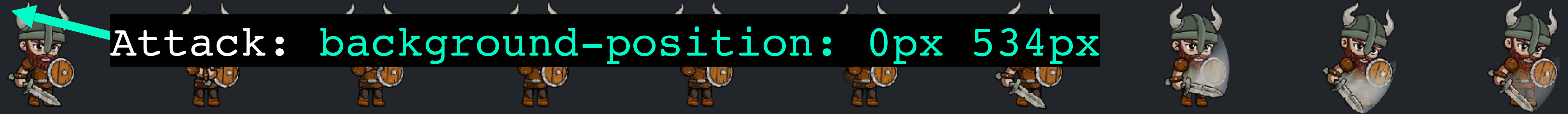


→ 10 steps

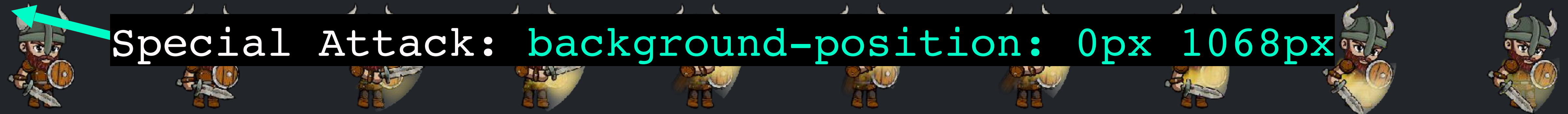
SPRITE ANIMATIONS



Idle: `background-position: 0px 0px`



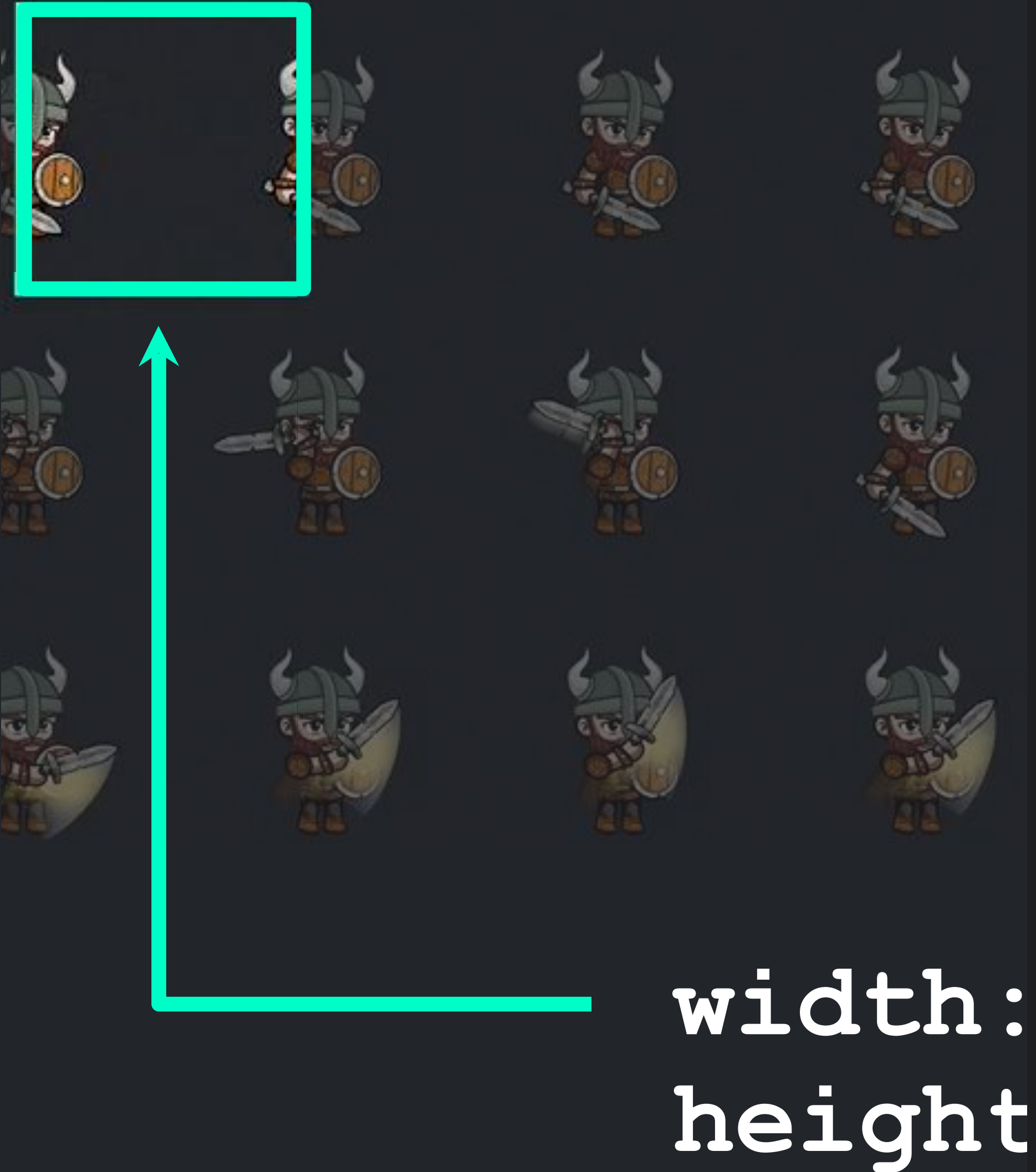
Attack: `background-position: 0px 534px`



Special Attack: `background-position: 0px 1068px`

```
@keyframes idle {  
  from { background-position: 0 0; }  
  to { background-position: -5345px 0; }  
}
```

SPRITE ANIMATIONS



```
.character {  
  position: absolute;  
  z-index: 100;  
  width: 530px;  
  height: 530px;  
  background-size: 5345px;  
  animation-duration: .8s;  
  animation-timing-function: steps(10);  
  animation-iteration-count: infinite;  
  
  &.enemy {  
    transform: scale(-1, .1);  
  }  
}
```

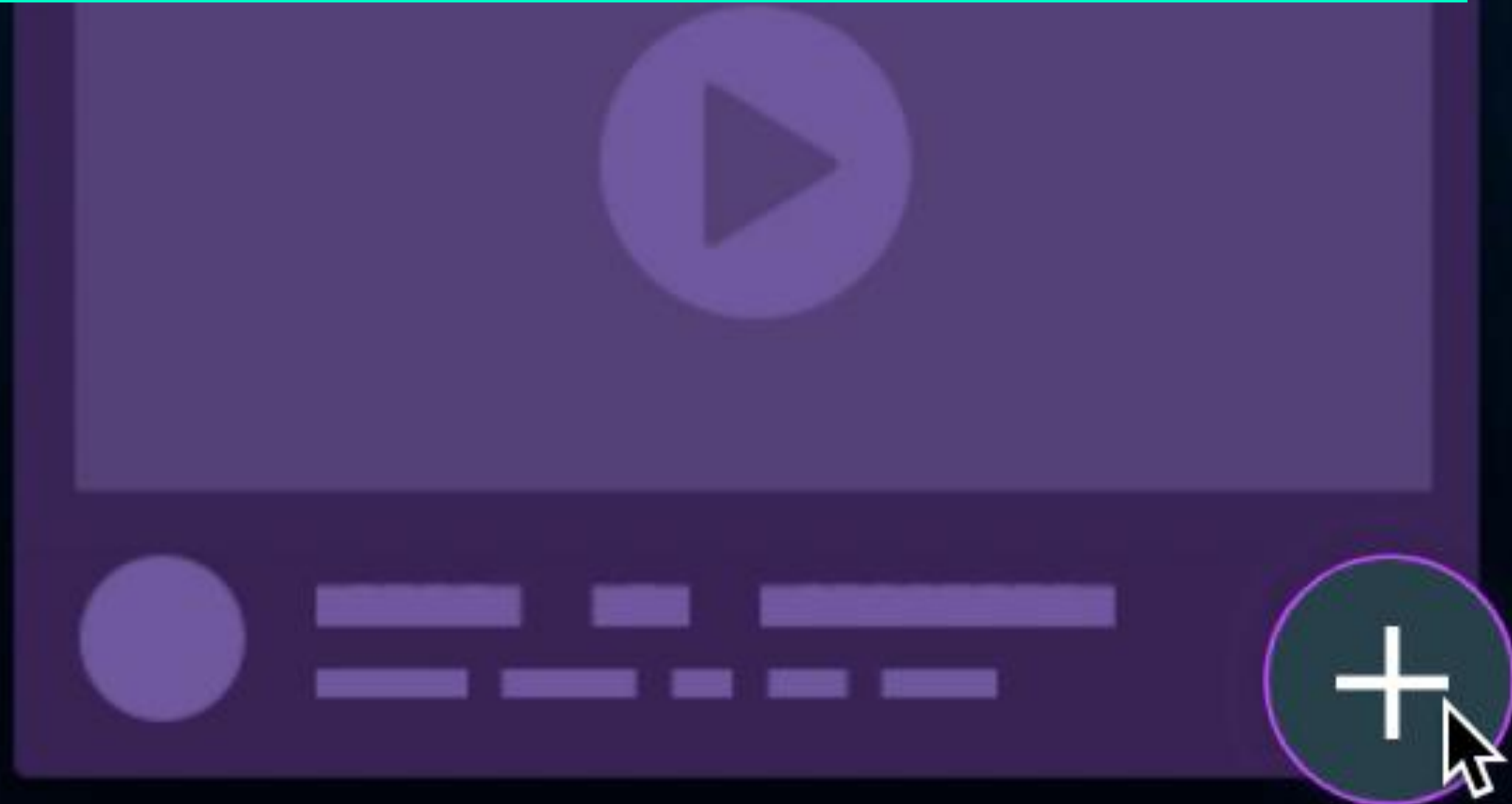
**SOME REAL LIFE
EXAMPLES NOW**

FLOATING BUTTON MENU

```
<template lang='pug'>
  .floating-menu__wrapper
    transition(name="fade")
      .floating-menu__overlay(
        v-if="menuIsVisible"
        @click='toggleMenu'
      )
    button.floating-menu__button(
      @click='toggleMenu'
    )
    a.floating-menu__child(
      v-for='(item, index) in childButtons'
      v-bind:key='index'
      :href='item.link'
      :style='calculateButtonStyle(index)'
    )
    img.floating-menu__child-img(:src='item.icon')
</template>
```

```
data() {
  return {
    menuIsVisible: false,
  },
},

methods: {
  toggleMenu() {
    this.menuIsVisible = !this.menuIsVisible
  },
}
```



FLOATING BUTTON MENU

```
<template lang='pug'>
  .floating-menu__wrapper
    transition(name="fade")
      .floating-menu__overlay(
        v-if="menuIsVisible"
        @click='toggleMenu'
      )
    button.floating-menu__button(
      @click='toggleMenu'
    )
    a.floating-menu__child(
      v-for='(item, index) in childButtons'
      v-bind:key='index'
      :href='item.link'
      :style='calculateButtonStyle(index)'
    )
    img.floating-menu__child-img(:src='item.icon')
</template>
```

```
childButtons: [
  {
    label: 'Example link!',
    link: 'http://www.example.com',
    icon: require('./images/edit.svg')
  },
  {
    label: 'Example link2!',
    link: 'http://www.example2.com',
    icon: require('./images/mail.svg')
  },
  {
    label: 'Example link3!',
    link: 'http://www.example3.com',
    icon: require('./images/download.svg')
  }
],
```



FLOATING BUTTON MENU

```
<template lang='pug'>
  .floating-menu__wrapper
    transition(name="fade")
      .floating-menu__overlay(
        v-if="menuIsVisible"
        @click='toggleMenu'
      )
    button.floating-menu__button
      @click='toggleMenu'
    )
    a.floating-menu__child(
      v-for='(item, index) in items'
      v-bind:key='index'
      :href='item.link'
      :style='calculateButtonStyle(index)'
    )
    img.floating-menu__child-img(:src='item.icon')
</template>
```

```
calculateButtonStyle(index) {
  return {
    'bottom': `${this.menuIsVisible ? (index + 1.3) * 50 : 0}px`,
    'transition-delay': `${index * .1}s`,
    'transform': `scale(${this.menuIsVisible ? 1 : .5})`,
  };
}
```



FLOATING BUTTON MENU

```
calculateButtonStyle(index) {  
  return {  
    'bottom': `${this.menuIsVisible ? (index + 1.3) * 50 : 0}px`,  
    'transition-delay': `${index * .1}s`,  
    'transform': `scale(${this.menuIsVisible ? 1 : .5})`,  
  };  
}
```

// 1.3 * 50 = 65x

// 2.3 * 50 = 115px

// 3.3 * 50 = 165px

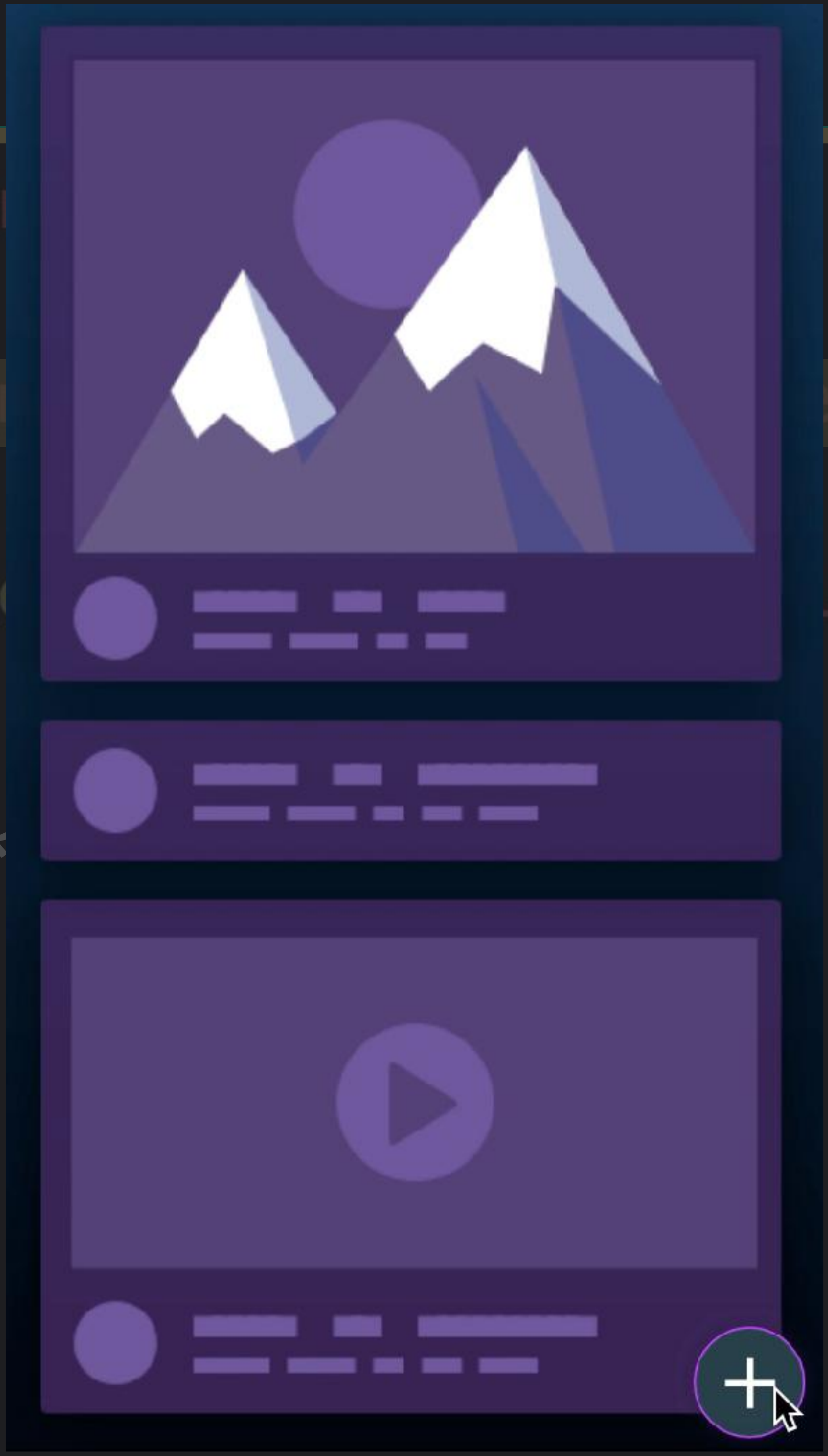
...

FLOATING BUTTON MENU

```
calculateButtonStyle(i)
return {
  'bottom': `${this...
  'transition-delay'
  'transform': `scale
};
}

// 1.3 *
// 2.3 *
// 3.3 *
...

```



COLLAPSIBLE CONTENT COMPONENT

```
<template lang="pug">
  .content-wrapper
    .-hidden-content(:class='hiddenContentClass')
      p.text
      slot
    button.read-more(v-on:click='show = !show')
      .read-more__icon(:class='toggleButtonClass')
      | {{ readMoreText }}
</template>
```

⊕ Show more



COLLAPSIBLE CONTENT COMPONENT

```
<script>
export default {
  name: 'CollapsibleContent',

  data() {
    return {
      show: false,
    }
  },

  computed: {
    hiddenContentClass: function(){
      return this.show ? '-is-open' : '-is-collapsed';
    },
    toggleButtonClass: function(){
      return this.show ? 'read-more__icon--is-open' : 'read-more__icon--is-collapsed';
    },
    readMoreText() {
      return this.show ? 'Show less' : 'Show more';
    }
  },
}
</script>
```

COLLAPSIBLE CONTENT COMPONENT

```
.read-more__icon {  
  width: 18px;  
  height: 18px;  
  border-radius: 50%;  
  border: 2px solid $primary-color;  
  position: relative;  
  
  &::before,  
  &::after {  
    transition: all .5s cubic-bezier(.68, -.55, .27, 1.55);  
    width: 10px;  
    height: 2px;  
    background: $primary-color;  
    content: ' ';  
    left: 2px;  
    top: 6px;  
    position: absolute;  
  }  
  
  &--is-collapsed::before { transform: rotate(270deg); }  
  &--is-collapsed::after { transform: rotate(180deg); }  
}
```

⊕ Show more



That's all Folks!



@krystalcampioni