Class 7: Bindings

- Review: Last Class
- Bidirectional Data Binding with `v-model`
- Attribute Bindings with `v-bind`
- Style Bindings
- Custom Events

Review: Last Class

Review: TailwindCSS

TailwindCSS is a utility-first CSS framework for rapidly building custom user interfaces.

Instead of writing custom CSS styles, you apply pre-defined utility classes directly in your HTML or Vue.js templates.

Example:

```
<button class="bg-blue-500 text-white font-bold py-2 px-4 rounded">
  Next
</button>
```

Bindings

Vue.js Bindings

Use bindings to connect your Vue.js component's data and methods to the HTML elements in your template.

```
<script setup>
import { ref } from 'vue'
const message = ref('hello')
</script>

<template>
  <p>Message is: {{ message }}</p>
  <input v-model="message" />
</template>
```

`v-model` Directive

The `v-model` directive creates a two-way binding between a form input element and a data property in your Vue.js component.

```
<script setup>
import { ref } from 'vue'
const message = ref('hello')
</script>

<template>
  <p>Message is: {{ message }}</p>
  <input v-model="message" />
</template>
```

When the user types into the input field, the value of the `message` ref is automatically updated. Conversely, if you programmatically change the value of `message`, the input field will reflect that change.

Attribute Bindings (`v-bind`)

Use the `v-bind` directive (`:` shorthand) to bind HTML attributes to data properties in your Vue.js component.

```
<script setup>
import { ref } from 'vue'
const isDisabled = ref(true)
</script>

<template>
  <button :disabled="isDisabled">Submit</button>
</template>
```

Style Bindings

Use `v-bind` with the `style` attribute to bind inline styles to data properties in your Vue.js component.

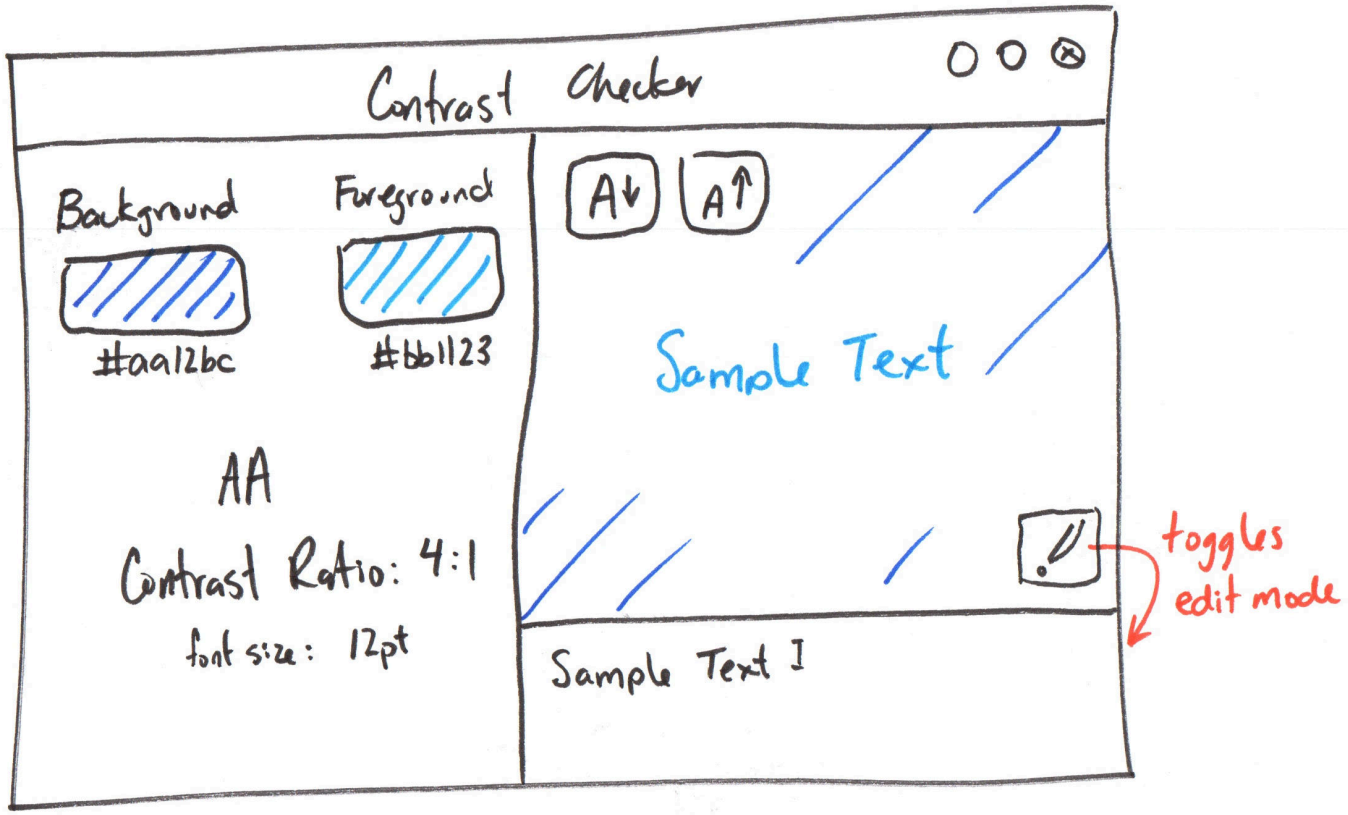
```
<script setup>
import { ref } from 'vue'
const weight = ref("bold")
</script>

<template>
  <p :style="{ fontWeight: weight }">
    This text is bold.
  </p>
</template>
```

Homework 3

Accessibility Contrast Checker Prototype App

Studio: Homework 3



Custom Events

Custom Events

Declare custom events in your Vue.js component to allow parent components to listen for and respond to specific actions or changes.

```
<script setup>
import { ref } from 'vue'
defineEmits(['countIncremented'])

const count = ref(0)
function incrementCount() {
  count.value++
  emit('countIncremented', count.value)
}
</script>
```

Listening for Custom Events

In the parent component, you can listen for the custom event using the `v-on` directive (`@` shorthand) and handle it with a method.

```
<script setup>
function handleCountIncremented(newCount) {
  console.log('Count incremented to:', newCount)
}
</script>

<template>
  <Counter @countIncremented="handleCountIncremented" />
</template>
```

Activity: Custom Event Practice

Working with your peers (2-4), complete the handout.

Counter.vue

```
<script setup>
import { ref } from 'vue'
defineEmits(['countIncremented'])

const count = ref(0)
function incrementCount() {
  count.value++
  emit('countIncremented', count.value)
}
</script>
```

App.vue

```
<script setup>
function handleCountIncremented(newCount) {
  console.log(
    'Count incremented to:',
    newCount)
}
</script>

<template>
  <Counter
    @countIncremented="handleCountIncremented" />
</template>
```

Summary

- Bidirectional data binding with `v-model` for input elements.
- Attribute bindings with `v-bind` for dynamic attributes.
- Style bindings for dynamic inline styles.
- Declare custom events (`defineEmits`) and `$emit` them from child components.
- Listen for custom events in parent components using `v-on` or `@` .

What's Next?

Next Class: Installable Prototype App

Homework:
Complete the released parts of Homework 3. (class preparation)

Looking Forward

Does your computer and phone support **WebGPU**?

Visit https://enablegpu.com/ and enable it in your browser if necessary.