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CREATING YOUR APP WITH VITE

Quick Vue3 development environment

```
npm init vite-app cd cod content
npm install
npm run dev
```

TEMPLATE SYNTAX

Text Interpolation Options

```
<span> {{ msg }} </span>
<span v-text='msg'></span>
```

Setting Inner HTML

```
<span v-html='rawHTML'></span>
```

Can use JS Expressions; NOT JS Statements

DIRECTIVES

v-if	Puts el in DOM if true
v-else-if	Like a usual conditional
v-else	Like a usual conditional
v-show	Toggles display CSS value
v-text	Sets the inner text
v-html	Sets the inner HTML
v-for	Loop through an array/obj
v-on or @	Listens to DOM events
v-bind or :	Reactive updates attribute
v-model	Two way data binding
v-once	Sets val once; Never update

CONDITIONAL RENDERING

Add/Remove Element from DOM w/ Boolean

```
<div v-if='date == today'>...</div>
<div v-else-if='!done'>...</div>
<div v-else>...</div>
```

Toggles display CSS instead of editing DOM

```
<div v-show='date == today'>...</div>
```

HANDLING EVENTS

Capture and event and call a method

```
<div v-on:click='count'>Increase</div>
<!-- SHORTHAND -->
<div @click='count'>Increase</div>
```

Method is passed a Native DOM Cvent

```
const count = (event) => {
    console.log(event.target)
}
```

Event modifiers (usage: v-on:click.stop)

LIST RENDERING

Basic Loop Over Array

```
          {{ item }}
```

Loop and Track Index

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Loop Values in Object

```
v-for='obj in objects'>
{{ obj }}
```

BINDING DATA

Simple Binding

```
<div v-bind:id='objectID'>...</div>
<!-- SHORTHAND -->
<div :id='objectID'>...</div>
```

Two way binding with data and input

```
<input v-model='email' />
```

Input Modifiers

```
.lazy updates on change event .trim removes extra whitespace
```

Use Objects to Bind Class/Styles

```
<input :class='{error: hasError}' />
<input :style='{margin: space+"px"}' />
```

BIND DATA BETWEEN CHILD & PARENT

Use v-bind to pass data from parent to child and emit a custom event to send data back.

In Parent, Bind Data & Set Listener to Update

```
<custom :msg='s' @update='s = $event'/>
```

In Child, Send Back Using emit(event, data)

```
context.emit('update', 'hello world')
```

SLOTS

Slots allow for content injection from a parent component to a child component.

BASIC SLOTS

Child Component (MyButton.Vue)

```
<div>
   Hello World
   <slot></slot>
</div>
```

Parent Component

```
<my-button>
  This content will replace the slot
</my-button>
```

NAMED SLOTS

Useful when you have multiple slots. If unnamed, name is 'default'.

Child Component (MyButton.Vue)

```
<div>
     <slot name='top'></slot>
     <slot name='bottom'></slot>
</div>
```

Name Slots in the Parent Component

```
<my-button>
    <template v-slot:top> // ...
    </template>
    <template v-slot:bottom> // ...
    </template>
</my-button>
```

SCOPED SLOTS

Give parent component access to child data.

Child Component (MyButton.Vue)

```
<div>
    <slot v-bind:post='post'>
        {{ post.title }}
        </slot>
    </div>
```

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Parent Has Access to MyButton post data

DYNAMIC COMPONENTS

Changes the rendered component - finds a registered component with the given name.

```
<component :is='componentName'/>
```

KEEP-ALIVE ELEMENTS

Stores a cached version of dynamic components when not visible. Avoids having to create a new component whenever toggled.

```
<keep-alive>
    <component :is='componentName'/>
</keep-alive>
```

COMPOSITION API

Everything returned by setup() is exposed to the template.

```
import { ref, reactive } from 'vue'
export default {
   setup(props, context) {
    const val = ref('example')
    const obj = reactive({ count: 0 })

   const evtHandler = () => {/*...*/}

   return {
      val, obj, evtHandler
   }
   }
}
```

SETUP() CONTEXT OBJECT PROPERTIES

attrs	Has component's attributes
slots	Has component's slots
emit	Function to emit events

VUEJS LIFECYCLE HOOKS

```
*beforeCreate

*created

*created

Use setup() instead

*onBeforeMount

DOM can be accessed

OnBeforeUpdate

OnUpdated

DOM has been updated

OnBeforeUnmount

Component still complete

OnUnmounted

Teardown complete
```

EXAMPLE LIFECYCLE HOOK CODE

```
import { onMounted } from 'vue'
// ...
setup() {
  onMounted(() => {
    console.log('component mounted!')
  }
}
```

VUE GLOBAL METHODS

mount()	Mount component to DOM
<pre>forceUpdate()</pre>	Force re-render
<pre>nextTick()</pre>	Runs func next update
destroy()	Destroy component/app

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COMPUTED PROPERTIES

A computed property is a value that is calculated using one or more other properties.

```
setup() {
  const a = ref(1)
  const b = computed(() => a.value * 2)
  return { a, b }
}
```

WATCHEFFECT()

Listens to reactive dependencies and runs a method when one changes. Also runs on init.

```
setup() {
  const site = ref('learnvue.co')

watchEffect(() => {
   console.log(site.value)
  })

return { site }
}
```

TEMPLATE REFS

Give access to DOM elements.

```
// template
<div ref='example'> Example Div </div>
// script
setup() {
   const example = ref('learnvue.co')
   // wait for DOM to mount
   onMounted(() => {
      console.log(example.value)
   })
   return { example }
}
```

VUE OBJECT API OPTIONS

If you decide not to use the Composition API, your components will look similar to Vue2 with the Options API.

Init reactive data
Data visible by parent
Declares mixins
Registers children
Set of Vue methods
Watch values for change
Cached reactive methods

TOP VUE LIBRARIES

vue-cli	Command Line Interface
vue-router	Handles Routing for SPAs
vuex	State Management Library

GREAT VUE UI RESOURCES

Vuetify	Bootstrap Vue	UIV
VueStrap	Vue Material	Mint UI
Element UI	Vuecidity	iView
Buefy	DeepReader	KeenUI
Quasar	AT UI	Bulma
Fish-UI	Muse UI	Vue Blu

CONTACT

For any corrections, comments, or concerns, just contact me at matt@learnvue.co

Hope this helped!