Conditional Rendering

Conditional rendering in Vue allows you to dynamically show or hide elements based on certain conditions in your app’s state or logic.

Vue Directives Used

- v-if :- Renders the element only if the condition is true
- v-else-if : Adds extra condition in an if-else chain
- v-else : Renders when all previous v-if/v-else-if are false
- v-show : Toggles visibility via CSS (display: none)

1. v-if / v-else-if / v-else

Example : Show different messages based on user role

```
<script setup>
import { ref } from 'vue'

const userRole = ref('admin') // try 'editor', 'guest', or 'banned'
</script>

<template>
  <h2>User Role Access</h2>

  <p v-if="userRole === 'admin'">Welcome Admin! You have full access.</p>
  <p v-else-if="userRole === 'editor'">Hello Editor! You can manage content.</p>
  <p v-else-if="userRole === 'guest'">Hi Guest! Please log in to continue.</p>
  <p v-else>You are not allowed to access this site.</p>
</template>
```

2. v-show

Example : Toggle form fields (client-side display only)

```
<script setup>
import { ref } from 'vue'

const showAdvanced = ref(false)
</script>

<template>
  <h2>Form Settings</h2>

  <label>
    <input type="checkbox" v-model="showAdvanced" />
    Show Advanced Settings
  </label>

  <div v-show="showAdvanced" class="advanced-box">
    <h3>Advanced Settings</h3>
    <label>
      Debug Mode: <input type="checkbox" />
    </label>
    <label>
      Enable Beta Features: <input type="checkbox" />
    </label>
  </div>
</template>

<style>
.advanced-box {
  margin-top: 10px;
  padding: 10px;
  border: 1px dashed gray;
}
</style>
```

v-if vs. v-show in Vue.js

Feature	`v-if`	`v-show`
Rendering Logic	Conditional rendering in the DOM	Always rendered, toggled via `display: none`
DOM Presence	Element **does not exist** when false	Element **always exists** in DOM
Performance (initial)	Slightly **slower** on first render	Faster initial rendering
Performance (toggle)	**Better** when condition rarely changes	**Better** when condition changes frequently
Use Case	Use when condition is rarely true or rarely changes	Use when toggling visibility often (e.g., tabs)
CSS Effects	Does not work if element is not in DOM	Works well with transitions/animations
Supports `v-else`	Yes	No
Example	`<p v-if="show">Hello</p>`	`<p v-show="show">Hello</p>`

Note:

- Use `v-if` for conditional creation of DOM elements.
- Use `v-show` for toggling visibility without destroying the element.