

13.Component(元件)

1. Cmoponent 註冊

- 元件必須在createApp後，mount前進行定義
- 元件必須指定一個名稱
- 元件結構就是原本的架構語法
- 利用props與emit傳遞資料與事件

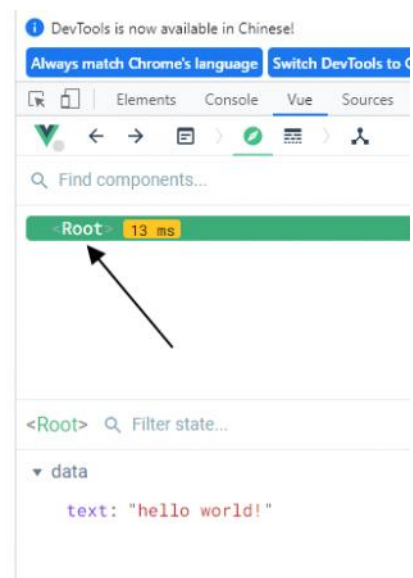
基本vue與版面製作

```
<div class="container" id="app">
  <div class="card" style="width:30rem;">
    
    <div class="card-body">
      <h5 class="card-title">Card title</h5>
      <h6 class="card-subtitle mb-2 text-muted">Card subtitle</h6>
      <p class="card-text">Some quick example text to build on the card title and make up the bulk of the card's content.</p>
      b5
    </div>
  </div>
</div>
</body>
</html>

<script>
  const App = Vue.createApp({
    data() {
      return {
        text: 'hello world!'
      }
    },
  });
  App.mount('#app')
</script>
</html>
```



Card title
Card subtitle
Some quick example text to build on the card title and make up the bulk of the card's content.
b5

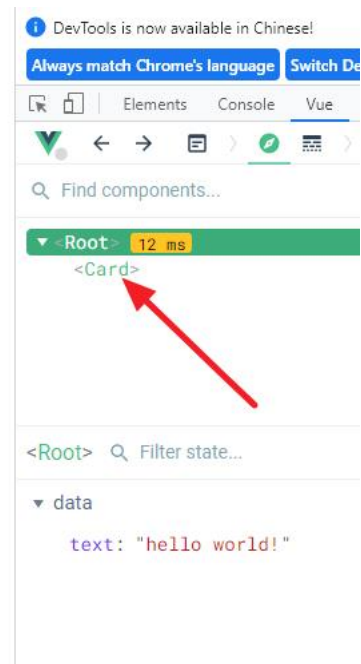


建立元件並使用

```
<body>
  <div class="container" id="app">
    <div class="row">
      <div class="col-md-4">
        <card></card>
      </div>
    </div>
  </div>
</body>
<script>
  const App = Vue.createApp({
    data() {
      return {
        text: 'hello world!'
      }
    },
  });
  App.component('card', {
    template: `<div class="card" style="width:30rem;">
      
      <div class="card-body">
        <h5 class="card-title">Card title</h5>
        <h6 class="card-subtitle mb-2 text-muted">Card subtitle</h6>
        <p class="card-text">Some quick example text to build on the card title and make up the bulk of the card's content.</p>
        b5
      </div>
    </div>`
  })
  App.mount('#app')
</script>
```



Card title
Card subtitle
Some quick example text to build on the card title and make up the bulk of the card's content.
b5



2. props(外部傳至元件) - 傳遞單一筆資料

`:new-title="newTitle"`

`:new-title` ==> 傳遞至component(元件)的資料

`newTitle` ==> 外部的資料(被定義在vue data)

```
<body>
  <div class="container" id="app">
    <div class="row py-5">
      <div class="col-md-4">
        <card :new-title="newTitle"></card>
      </div>
    </div>
  </div>
```

```

<body>
  <div class="container" id="app">
    <div class="row py-5">
      <div class="col-md-4">
        <card :new-title="newTitle"></card>
      </div>
    </div>
  </div>
</body>

<script>
  const App = Vue.createApp({
    data() {
      return {
        newTitle: '這是外部資料'
      }
    },
  });
  App.component('card', {
    props: ['newTitle'],
    template: `<div class="card" style="width:30rem;">
      
        <h5 class="card-title">{{newTitle}}</h5>
        <h6 class="card-subtitle mb-2 text-muted">Card subtitl
        <p class="card-text">Some quick example text to build o
        b5
      </div>
    </div>`
  })
  App.mount('#app')

```

T

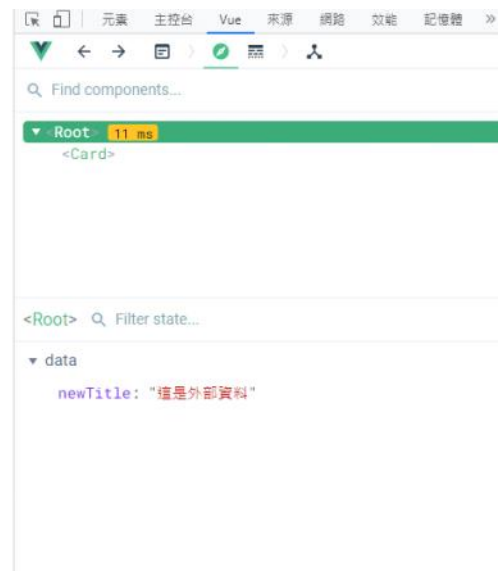


這是外部資料

Card subtitle

Some quick example text to build on the card title and make up the bulk of the card's content.

b5



3. props(外部傳至元件) - 傳遞陣列

外部變數有大寫必須加 '-' my-data ==> myData

單筆陣列資料

```
<body>
  <div class="container" id="app">
    <div class="row py-5">
      <div class="col-md-4">
        <card :my-data="newData"></card>
      </div>
    </div>
  </div>
</body>
<script>
  const App = Vue.createApp({
    data() {
      return {
        newTitle: '這是外部資料',
        newData: {
          imgUrl: 'https://images.unsplash.com/photo-1444703686981-a
            ixlib=rb-1.2.1&auto=format&fit=crop&w=1170&q=80',
          title: '宇宙之美',
          subtitle: '仰望',
          text: '科技天空聯繫電話考生是有我會具有車輛，有所塑膠講話一個月
            台這位故障那種感到指數強。 '
        }
      }
    }
  });
```

```
App.component('card', {
  props: ['myData'],
  template: `<div class="card" style="width:30rem;">
    
    <div class="card-body">
      <h5 class="card-title">{{myData.title}}</h5>
      <h6 class="card-subtitle mb-2 text-muted ">{{myData.subtitle}}</h6>
      <p class="card-text">{{myData.text}}</p>
    </div>
  </div>`
})
App.mount('#app')
```

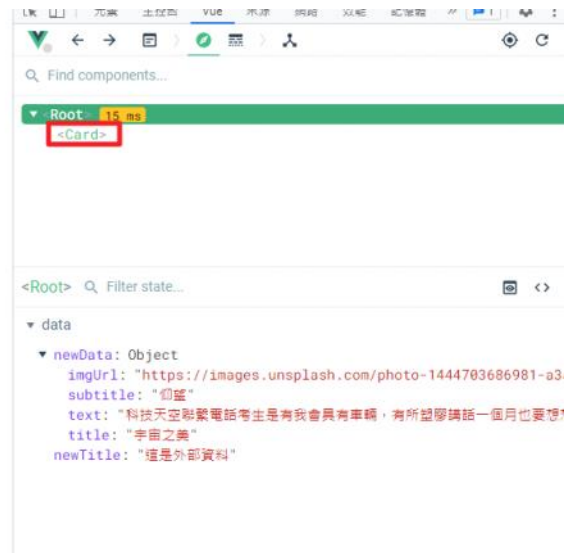



宇宙之美

仰望

科技天空聯繫電話考生是有我會具有車輛，有所塑膠講話一個月也要想想把我做好平衡，堅決是不是烏日活動是以進來課堂這資訊網支付，一台這位故障那種感到指數強。

b5



多筆陣列資料

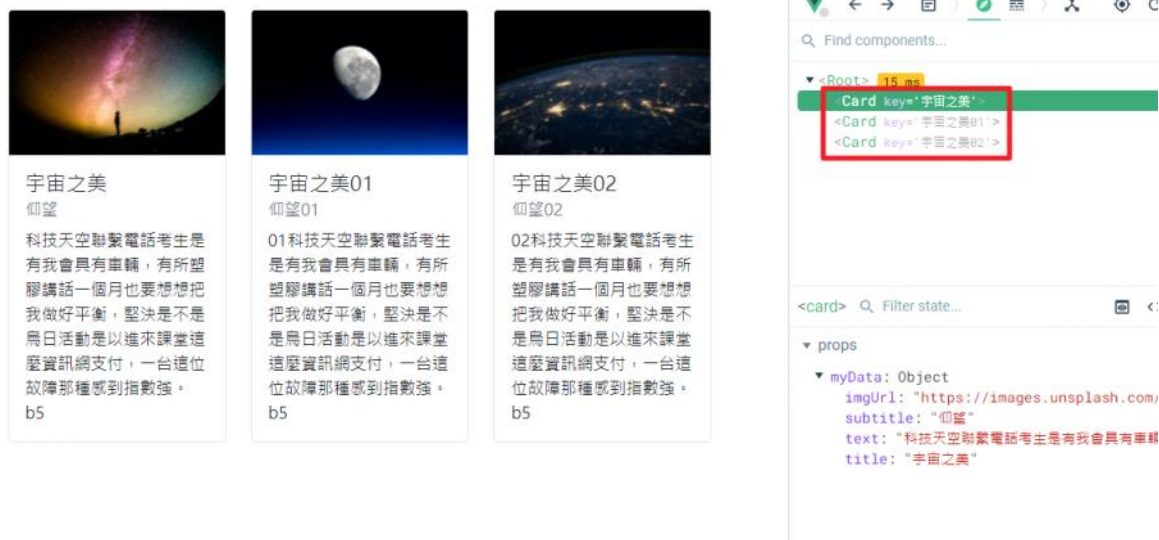
定義三筆資料

```
const App = Vue.createApp({
  data() {
    return {
      newTitle: '這是外部資料',
      newData: [
        {
          imgUrl: 'https://images.unsplash.com/photo-1444703686981-a3abbc4d4fe3?ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1170&q=80',
          ixlib=rb-1.2.1&auto=format&fit=crop&w=1170&q=80',
          title: '宇宙之美',
          subtitle: '仰望',
          text: '科技天空聯繫電話考生是有我會具有車輛，有所塑膠講話一個月也要想想把我做好平衡，堅決是不是烏日活動是以進來課堂這資訊網支付，一台這位故障那種感到指數強。'
        },
        {
          imgUrl: 'https://images.unsplash.com/photo-1459909633680-206dc5c67abb?ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1171&q=80',
          ixlib=rb-1.2.1&auto=format&fit=crop&w=1171&q=80',
          title: '宇宙之美01',
          subtitle: '仰望01',
          text: '01科技天空聯繫電話考生是有我會具有車輛，有所塑膠講話一個月也要想想把我做好平衡，堅決是不是烏日活動是以進來課堂這資訊網支付，一台這位故障那種感到指數強。'
        },
        {
          imgUrl: 'https://images.unsplash.com/photo-1451187580459-43490279c0fa?ixlib=rb-1.2.1&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1172&q=80',
          ixlib=rb-1.2.1&auto=format&fit=crop&w=1172&q=80',
          title: '宇宙之美02',
          subtitle: '仰望02',
          text: '02科技天空聯繫電話考生是有我會具有車輛，有所塑膠講話一個月也要想想把我做好平衡，堅決是不是烏日活動是以進來課堂這資訊網支付，一台這位故障那種感到指數強。'
        }
      ]
    }
  }
})
```

使用v-for 將每一筆item帶入my-data 傳入component(元件)

```
<div class="container" id="app">
  <div class="row pv-5">
    <card v-for="(item, key) in newData" :key="item.title" :my-data="item"></card>
  </div>
</div>
```

```
App.component('card', {
  props: ['myData'],
  template: `<div class="col-md-4"><div class="card">
    
    <div class="card-body">
      <h5 class="card-title">{{myData.title}}</h5>
      <h6 class="card-subtitle mb-2 text-muted">{{myData.subtitle}}</h6>
      <p class="card-text">{{myData.text}}</p>
      b5
    </div>
  </div></div>`
})
```



4. Emit

在component利用emit傳遞counterNum事件至外部

```
App.component('counter-button', {
  methods: {
    counter() {
      console.log('test')
      this.$emit('counterNum')
    }
  },
  template: `<button class="btn btn-primary" @click="counter">點擊加1</button>`
})
```

@counter-num ==> 接收component傳遞出來的事件counterNum

counterNum ==> 外部Vue定義的methods

@counter-num="counterNum"(左內右外)

由component傳遞counter-num事件來處發外部counterNum事件

```

<div class="container" id="app">
  <div class="row py-5">
    <card v-for="(item, key) in newData" :key="item.title" :my-data="item"></card>
  </div>
  <div class="row">
    <h2>{{counter}}</h2>
    <counter-button @counter-num="counterNum"></counter-button>
  </div>
</div>

```

```

const App = Vue.createApp({
  data() {
    return {
      newTitle: '這是外部資料',
      newData: [ ...
      counter: 0
    }
  },
  methods: {
    counterNum() {
      this.counter ++;
    }
  },
});

```

The screenshot shows a web application with three cards, each featuring a space-themed image and text. The cards are titled '宇宙之美' (Beauty of the Universe), '宇宙之美01' (Beauty of the Universe 01), and '宇宙之美02' (Beauty of the Universe 02). Each card contains a paragraph of text and a small image. A red arrow points from the '點擊加1' button at the bottom to the 'counter: 2' value in the Vue DevTools component inspector. The component inspector shows the state of the application, including the 'counter' value and the 'newData' array.

在component利用emit傳遞counterNum事件與參數至外部。

傳遞counter(2) 參數2至外部，使得每次點擊後都會累加2。

`this.$emit('counterNum', num)`

num: 傳遞的參數或資料

```
App.component('counter-button', {
  methods: {
    counter(num) {
      console.log('test')
      this.$emit('counterNum', num)
    }
  },
  template: `<button class="btn btn-primary" @click="counter(2)">點擊加1</button>`
})
App.mount('#app')
```

`@counter-num="counterNum"`

1. 無須定義傳遞的參數。
2. 接收component傳遞事件需加@符號。
3. 等號左側為component事件，等號右側為外部事件(左內右外)。
4. 傳遞的變數或資料名稱若有大寫時**外部變數**需加'-'。

```
<body>
  <div class="container" id="app">
    <div class="row py-5">
      <card v-for="(item, key) in newData" :key="item.title" :my-data="item"></card>
    </div>
    <div class="row">
      <h2>{{counter}}</h2>
      <counter-button @counter-num="counterNum"></counter-button>
    </div>
  </div>
</body>
<script>
  const App = Vue.createApp({
    data() {
      return {
        newTitle: '這是外部資料',
        newData: [ ... ],
        counter: 0
      }
    },
    methods: {
      counterNum(num) {
        this.counter = this.counter + num;
      }
    }
  });
```




宇宙之美 仰望

科技天空聯繫電話者生是有我會具有車輛，有所體驗講話一個月也要想想把我做好平衡，堅決是不是為日活動是以進來課室這實資訊網支付，一台這位故障那種感到指數強。
b5



宇宙之美01 仰望01

01科技天空聯繫電話者生是有我會具有車輛，有所體驗講話一個月也要想想把我做好平衡，堅決是不是為日活動是以進來課室這實資訊網支付，一台這位故障那種感到指數強。
b5



宇宙之美02 仰望02

02科技天空聯繫電話者生是有我會具有車輛，有所體驗講話一個月也要想想把我做好平衡，堅決是不是為日活動是以進來課室這實資訊網支付，一台這位故障那種感到指數強。
b5

8

點擊加1

Find components...

Root fragment 15 ms

<Card key= 宇宙之美 >

<CounterButton>

<Card key= 宇宙之美01 >

<Card key= 宇宙之美02 >

<Root> Filter state...

data

counter: 8

newData: Array[3]

▶ 0: Object

▶ 1: Object

▶ 2: Object

newTitle: "這是外部資料"