# COS30043 Interface Design and Development



**Lecture 8 – API 2 & Pagination** 



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#### **Content**



- RESTful API Example
  - Pagination with Client-Side Data



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#### **An RESTful API Example Application**

In this example, we can read/insert/update/delete data in database tables in VueJs through a representational state transfer application programming interfaces (RESTful API).

#### The backend:

- Create the database table
- Write server side scripting to query the database and handle the GET/POST/PUT/DELETE requests

The front end (we focus on the front end)

- Send requests
- Display the data and error messages

You can download the sample code from Canvas.

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#### **Content**

- RESTful API Example
- - Pagination with Client-Side Data



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#### **Pagination with Client-Side Data**

- Uses vuejs-paginate to implement pagination
- Requires that the entire data is stored in memory as an array/object
- Needs a custom filter to remove the part of the array that is not to be displayed
- Requires <paginate> element to show the pagination links



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## **Pagination with Client-Side Data**

- vuejs-paginate: A Vue.js component to make pagination.
- How to reference it?
  - Download to local <script src="js/vuejs-paginate.js></script>
  - CDN

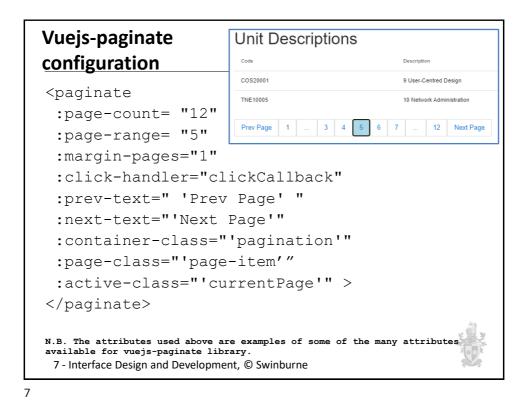
<script src="https://unpkg.com/vuejs-paginatenext@latest/dist/vuejs-paginate-next.umd.js"></script>

• How to create paginate component in Vue?

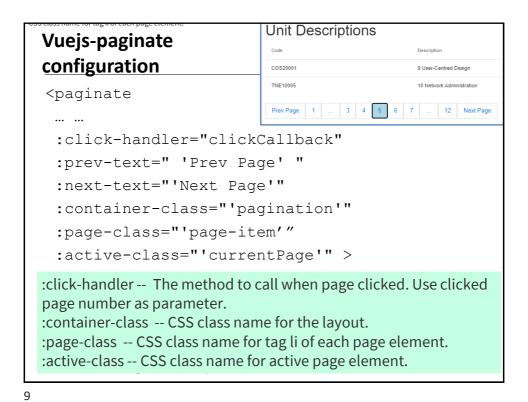
```
components: {
          paginate: VuejsPaginateNext,
}
```



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Vuejs-paginate **Unit Descriptions** configuration COS20001 <paginate</pre> TNE10005 :page-count= "12" :page-range= "5" :margin-pages="1" :click-handler="clickcallback" -- Total count of pages. required :page-count -- number of pages displayed, :page-range default 3. It is recommended to use an odd number, so that the same number of pages are displayed before and after the active page :margin-pages / -- The number of displayed pages for margins. default: 1



### **Example: HTML- Table**

#### **Example: HTML- Table**

```
:key="unit.code" >
      {{unit.code}}
      {{unit.desc}}
      { { unit.cp} } 
      {{unit.type}}
     </template>
</v-table>
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```

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#### **Component – Page Control Methods**

```
computed: {
       // function that filters the
units according to the search fields
       filteredUnits: function(){
         return
this.units.filter(unit=>
unit.code.toLowerCase().match((this.f
Unit.code.toLowerCase())) &&
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```

#### **Component – Page Control Methods**

```
unit.desc.toLowerCase().match((this.f
Unit.desc.toLowerCase())) &&

unit.type.match((this.fUnit.type.trim
()))
         );
    },
```

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### **Component – Page Control Methods**

```
getItems: function() {
        let current =
this.currentPage * this.perPage;
        let start = current -
this.perPage;
        return
this.filteredUnits.slice(start,
current);
    },
```

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#### **Component – Page Control Methods**

```
getPageCount: function() {
    return
Math.ceil(this.filteredUnits.length /
this.perPage);
    },
methods:{
    clickCallback: function(pageNum) {
    this.currentPage = Number(pageNum);
    }
}

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```

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