Faculty of Science, Engineering and Technology

# Interface Design and Development

## Pass Task 3.2: Lookup Web App

## Overview

Using loop directive in VueJS, it is possible to create programs that dynamically generates HTML elements using an array of data objects. In this task, you will create a small web application that will list down a list of units in a table and allow the user to filter by unit code and unit description.

**Purpose:** Learn to use loop and filter directives to respond to user actions. Learn how to incorporate styling.

**Task:** Create a web app that list units and support a search filter.

**Time:** This task should be completed in your tutorial and submitted for feedback before the start of week 5.

**Resources:**

- Lecture notes #2 and #3
- VueJS https://vuejs.org/
- Bootstrap http://getbootstrap.com/

### *Submission Details*

You must submit the following files:

- Look-up source code (lookup1.html).
- Screenshot of the web app. **Please submit the screenshots as separate files (not inside a zip).**

Make sure that your task has the following in your submission:

- The Look-up web application is HTML5 compliant.
- Demonstrates understanding in using the VueJS framework.
- Demonstrates use of VueJS expression and conditional directives.
- Demonstrates understanding of incorporating the Bootstrap framework.

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# Instructions

Loops allow one to programmatically generate a list or table based on a given data, instead of having to hard code each data item. This requires the data set to be downloaded to the client, which may add to the loading time of the web application.

While the list or table can also be programmatically generated in the server and send to the client as HTML, adding search and filter client-side user interactivity will be difficult to implement.

1. Open Brackets (or other editor) and save the blank file as lookup1.html in your lab03 directory.

2. Start the web application code with the template for VueJS found in lecture 03.

3. Implement a web application with the following logic:
   - Initialise the array of objects with the following unit information

| Unit codes | Units | Credit points | Type |
|---|---|---|---|
| ICT10001 | Problem Solving with ICT | 12.5 | Core |
| COS10005 | Web Development | 12.5 | Core |
| INF10003 | Introduction to Business Information Systems | 12.5 | Core |
| INF10002 | Database Analysis and Design | 12.5 | Core |
| COS10009 | Introduction to Programming | 12.5 | Core |
| INF30029 | Information Technology Project Management | 12.5 | Core |
| ICT30005 | Professional Issues in Information Technology | 12.5 | Core |
| ICT30001 | Information Technology Project | 12.5 | Core |
| COS20001 | User-Centred Design | 12.5 | Software Development |
| TNE10005 | Network Administration | 12.5 | Software Development |
| COS20016 | Operating System Configuration | 12.5 | Software Development |
| SWE20001 | Development Project 1 - Tools and Practices | 12.5 | Software Development |
| COS20007 | Object Oriented Programming | 12.5 | Software Development |
| COS30015 | IT Security | 12.5 | Software Development |
| COS30043 | Interface Design and Development | 12.5 | Software Development |
| COS30017 | Software Development for Mobile Devices | 12.5 | Software Development |
| INF20012 | Enterprise Systems | 12.5 | Systems Analysis |
| ACC10007 | Financial Information for Decision Making | 12.5 | Systems Analysis |
| INF20003 | Requirements Analysis and Modelling | 12.5 | Systems Analysis |
| ACC20014 | Management Decision Making | 12.5 | Systems Analysis |
| INF30005 | Business Process Management | 12.5 | Systems Analysis |
| INF30003 | Business Information Systems Analysis | 12.5 | Systems Analysis |
| INF30020 | Information Systems Risk and Security | 12.5 | Systems Analysis |
| INF30001 | Systems Acquisition & Implementation Management | 12.5 | Systems Analysis |

Table 1: Unit Information

**Note:** You may download the unit information in JSON format from Canvas.

   - It accepts 2 text input filters, namely: unit code and unit description.
   - It has a radio input filter to select unit type, namely: core, software development, systems analysis and all.
   - Display the unit information in a table (1) ordered by unit description, (2) have unit code, unit description and type as filter, and filter must not be case sensitive, (3) and credit point displayed with 2 decimal places.

```
Web App: lookup1.html
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Uses: VueJS 3.x
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--- Model:
- obj.code (stores the unit code)
- obj.desc (stores the unit description)
- obj.type (specifies the unit type)
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--- Steps:
1: Initialise the array of objects
2: Assign obj.code and/or obj.desc using v-model with
    the prompt: 'Search filter:'
3: Create a radio input obj.type with the options
    'core', 'software development', 'systems analysis'
    or 'all' units
4: Use v-for to display the table
```

**Tip:** For styling the table, use the table class from the Bootstrap framework.

```
<div class="table-responsive"
 <table class="table table-striped table-hover">
     :
 </table>
</div>
```

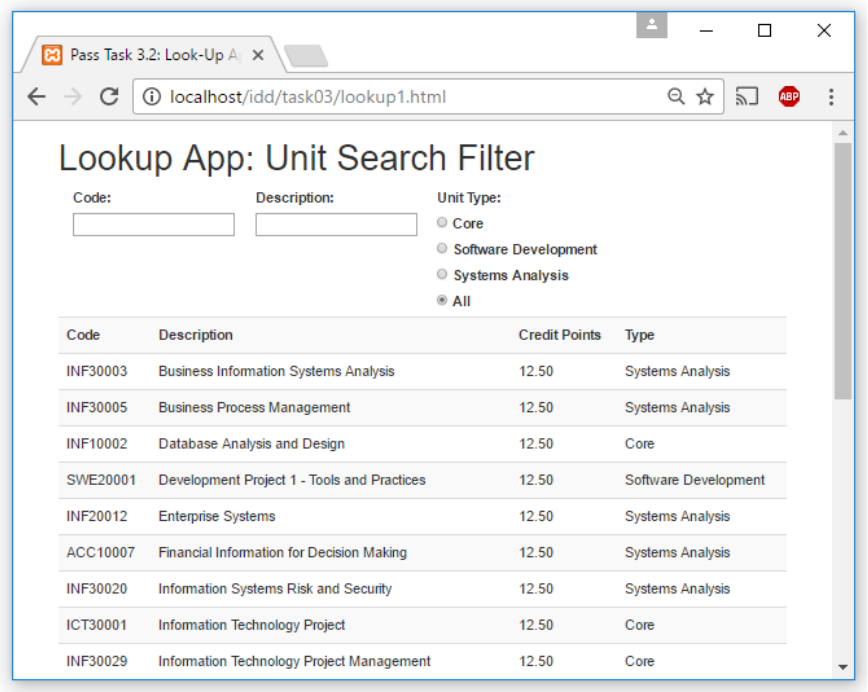


Figure 1: Screenshot of the web app with Bootstrap mark up (row and col-xx-##)

Now that the task is complete you can submit it for assessment, which will help prepare it for your portfolio.