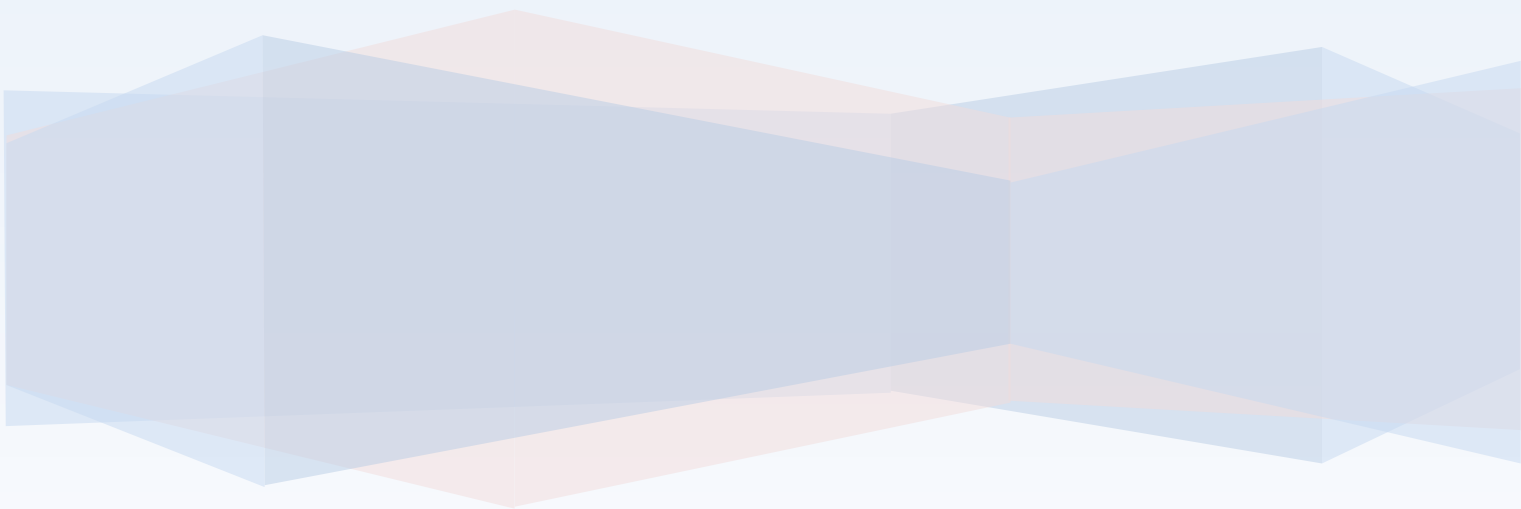


# COS30043 – Interface Design and Development

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*Learning Summary Report*

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## Self-Assessment Details

The following checklists provide an overview of my self-assessment for this unit.

	Pass (D)	Credit (C)	Distinction (D)	High Distinction (HD)
Self-Assessment (please tick)		X		

### *Self-assessment Statement*

	Included (please tick)
Learning Summary Report	X
Use of Bootstrap that demonstrate coverage of core concepts	X
Use of VueJS that demonstrate coverage of core concepts	X

### *Minimum Pass Checklist*

	Included (please tick)
Progress on Credit Tasks	X
All Pass Tasks signed off	X

### *Minimum Credit Checklist, in addition to Pass Checklist*

	Included (please tick)
Credit and Pass Tasks done, and Progress on Distinction Tasks.	X
Custom program meets Distinction criteria	
Design report with screenshots for custom program	

### *Minimum Distinction Checklist, in addition to Credit Checklist*

	Included (please tick)
Research report, and associated pieces	X
Custom project meets HD requirements	

### *Minimum High Distinction Checklist, in addition to Distinction Checklist*

## Declaration

I declare that this portfolio is my individual work. I have not copied from any other student's work or from any other source except where due acknowledgment is made explicitly in the text, nor has any part of this submission been written for me by another person.

Signature: \_\_\_\_\_



## Introduction

This report summarises what I learnt in COS30043 - Interface Design and Development. It includes a self-assessment against the criteria described in the unit outline, a justification of the pieces included, details of the coverage of the unit's intended learning outcomes, and a reflection on my learning.

## Overview of Pieces Included

This section outlines the pieces that I have included in my portfolio...

1. 1.1P: Using old project with best html, css, and javascript with minimum 20 lines of code .
2. 1.2P: Install vscode and html validate and upload Hello World code.
3. 1.3P: Using validate online tools for form accessibility to fix access issues in an html form.
4. 1.4P : Table accessibility including fix the issues exit in tabletask.html
5. 2.1P: Installing and running the Bootstrap framework and give a comprehension between using Bootstrap and without using .
6. 2.2P: My Calculator is a website to improve designing layout skill using Bootstrap framework.
7. 2.3P: Exploiting bootstrap library to design and code my own templates.
8. 3.1P: Vuejs for string test webpage. Build a web application that provides dynamic content updates.
9. 3.2P: Generate multiple html elements from array of data objects using loop directive in Vuejs in Lookup Web App. This web app will show a list of unit with filter for users.
10. 3.3C: Compute Web App. This app will use express( \* ) and conditional directives (v-if , v-else-if) to calculate the BMI and display results to users.
11. 3.4C: Create a basic registration form (Registration Form Web App) and some parts will change according to prior questions using loop directive ('v-for') and conditional('v-if').
12. 4.1P: Handling events by number guessing game (v-on), showing random number using expressions, conditional directives.
13. 5.1P: With components, conditional directive, methods and event handling create a status posting web app to add statuses to the timeline. The timeline will begin empty because of absence of persistent storage. When inserting, the new statuses will be displayed at the top, and push older statuses down. Each status will include delete button.
14. 5.2P: Display a model with list of an array of strings using component to initialize that model, and using vuejs directive (v-bind and v-for) .
15. 5.3C: Updating the list of unit by adding router to display unit information when clicking a button, the button.
16. 6.1C: Building a registration form using Bootstrap to style the layout and Vuejs for validation.
17. 7.1P: In Vue app , using jQuery getJSON() method to get data from external resources.
18. 7.2P: Fetching data from a text file with JavaScript fetch() method to form a table.
19. 8.1P: This Student Marks webpage give the guidelines to understand how does vuejs-paginate work.
20. 8.2C: In my table, using fetch() method to get data from external file and using vuejs-paginate to paginate the table.
21. 9.1P: Based on the knowledge from previous assignments such as router, pagination to create a single page application.
22. 9.2C: Similar to 9.1P but the data is retrieved from json file using fetch() method and including pagination, tab.
23. 10.1P: Creating a Single Page Application Using Vue CLI framework and nodejs.

## Coverage of the Intended Learning Outcomes

This section outlines how the pieces I have included demonstrate the depth of my understanding in relation to each of the unit's intended learning outcomes.

## ILO 1: Apply Design

*Apply fundamental design concepts and standards to the development of user interfaces*

The following pieces demonstrate my ability in relation to this ILO:

- After the course, I have gained a significant of design principles with deep down knowledge of layout's elements and the convenience when applying the bootstrap for interface. The assignments I submitted enhanced my abilities to integrate these design principles into tasks.

## ILO 2: Use Frameworks

*Use contemporary frameworks to create dynamic user interfaces.*

- By applying Bootstrap frameworks for assignments, I can see the interfaces become more organized and easier to establish.
- In term of Vuejs framework, I can know how to use directives for filters, functions and validation. This skills I have shown in the assignments, MI calculator and registration form.
- In assignments I have established Nodejs and VueCLI to create single page application and dynamic interface.

## ILO 3: Develop User Interfaces

*Design and develop user interfaces optimised for a range of devices and platforms.*

- In this part, I illustrate how I optimized responsive user interfaces for devices and platforms. By applying proper responsive design technique and framework as Vuejs and Bootstrap, I believe that the interface can deploy smoothly and flexibly to different resolution and screen size.

## ILO 4: Evaluate User Interfaces

*Evaluate user interfaces with respect to usability and accessibility using appropriate techniques, and propose improvements.*

- When it comes to interfaces and abilities for various types of users, it's crucial to Make sure everything should work effectively when coding, building and designing website or app. And some of my assignments have met the criteria for this unit. By paying attention to accessibility and usability, I'm quite sure my interfaces is suitable to wide ranges of users.

## Reflection

### The most important things I learnt:

After finishing studying this course, for me, Bootstrap's grid system was a game-changer for creating layouts and it's like a fundamental milestone to construct a well operated website. I learn how to arrange boxes and div using class container and its variant, using rows and columns, making it more responsive and aesthetic to various screen sizes. I also have a good start with To-way data binding as well. This happened when I was reviewing the previous lecture and I do an exercise of v-model when I write inside the input and the Vue data property gets updates with the same values that I entered. I was expecting to learn more of vuejs especially in fetching data and the course gave me a comprehensive overview of this topic. I had gained a solid understanding about fetch() method and using jQuery getJSON() which might benefit me in upcoming projects.

### The things that helped me most were:

- The template in module lecture was the most closest resource to me, the template's description was very specific and concise explanations of main concepts, as well as they provide clear examples so I can understand deeper.
- Some external resources such as Github and w3s also play an important role in applying theoretical knowledge in various scenarios. W3s give me hands-on exercises that can sharpen my brain of the concept that I have learnt, while Github provides me multiple innovative ways to use Vue.js and Bootstrap in assignments.
- I also got assisted by my friends, they gave me an effortless method and instruction so I could reduce amount of time for searching and brainstorming.

### I found the following topics particularly challenging:

- I found a big challenging when I start doing the 9.1C assignment, at first I couldn't get onto localhost due to error port, moreover, I had to be careful in write down the name of the path's name and component because it would be time-wasting to find out the right place to fix. It took a few day for me to fully understand how does VueRouter work in SPA.
- The 8.1P also took me whole night but then I also figured out the pagination's motive through computed and method properties. I was noticing that the Array slice() method only select from a given start but not to given end. So I had to calculated multiple time to show the desired number of objects in array.

### I found the following topics particularly interesting:

- Bootstrap was my first interest when I have known how to implement it to create a creative and responsive webpage.
- Learning to interact with APIs made my assignments effortless and reduce amount of time to fetch data, making the website more functional and dynamic.
- I also found the topic of pagination very practical and can apply in many in real life circumstances. One of my deepest understandings was how to divide from a big dataset into manageable blocks, bringing the user with better experience

### I feel I learnt these topics, concepts, and/or tools really well:

The basic knowledge such as vue directive (v-bind, v-for, v-if) was the good start for me o create dynamic and interactive function in interfaces effortlessly.

```
<div id="yooo">
  <p>Please enter your name: <input type="text" v-model="strName"></p>
  <p v-if="strName.toLowerCase() == 'duc chung'">
    Awesome name!
  </p>
  <p v-else-if="strName == ''">
  </p>
  <p v-else>
    {{ strName }} is not my name
  </p>
</div>
```

This picture describe if I enter the name “duc chung” in the input field, the v-if directive will display “Awesome name” , if the name I enter does not match with the strName , the v-else directive will show “the name I enter is not my name”.

-As I mentioned aboved, pagination was my challenging, my interest and also what I learnt well

```
computed: {
  getItems: function() {
    let current = this.currentPage * 3;
    let start = current - 3;

    return this.student.slice(start, current);
  },

  methods: {
    //sets the clicked page
    clickCallback: function(pageNum) {
      this.currentPage = Number(pageNum);
    }
  }
}
```

This code demonstrate how to execute pagination using properties computed and method of Vue.js , the `getItems` calculate the desired set of items to be displayed on the current page. The `clickCallback` will return a new value of `currentPage` when clicking in random page number, then the `getItem` will recalculate to display range of items match with page number.

### I still need to work on the following areas:

- Although I have gained an amount of knowledge in this unit but there are some parts that I still need to work on due its complexity and be proficient, I will have to challenge myself by completing Custom Web Application, and the workflow of validation, router , and fetch data method.

### My progress in this unit was ...:

- I pay attention on exercise and practice in external resources. Building small webpage using Vue.js and Bootstrap to sharpen the knowledge I learnt.
- I actively discuss with new friends, open more relationships and create more question to find out the solution.
- I was facing some challenges with Router, SPA and API. However, I was searching help from friends, teachers and online resources to get over these obstacles. This habit was formed gradually within the time I was looking for solution and that was a good habit to use it for my upcoming unit.

### This unit will help me in the future:

In the future, I hope this unit will equip for me with amount knowledge of Bootstrap and Vuejs so I can apply these knowledge in upcoming projects combine with other languages like html,php and database such as MongoDB and MySQL. In future course or projects, I'm sure using Vue Router will allow me to build complicate structures applications with multiple components. It would be my advantage if I find some companies that looking for developers who can create responsive, high performance web app.

**If I did this unit again I would do the following things differently:**

If I did this unit again, I would make a schedule for this unit so I can ensure to complete and submit assignments on time, so I can gain more knowledge and remember what I have learnt longer to prepare for D and HD tasks with good performance. I also need to pay attention to the hard parts and be persistent like router and Single Page Application.

**Other...:**

[ Add any other reflections you think help you demonstrate your learning ]