

Junyan Wang: 28695313

## FIT5032 Learning Summary Report

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### Self-Assessment Details

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

|                               | Pass | Credit | Distinction | High Distinction |
|-------------------------------|------|--------|-------------|------------------|
| Self-Assessment (please tick) |      |        | ✓           |                  |

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Self-assessment Statement

|  | Included (please tick) |
|--|------------------------|
| Learning Summary Report  | <b>✓</b>               |
| Progress on Pass Tasks   | ✓                      |
| ASP.NET C# applications that demonstrate coverage of core concepts | ✓                      |

#### Minimum Pass Checklist

|   | Included (please tick) |
|---|------------------------|
| Progress on Credit Tasks                            | ✓                      |
| All Pass Tasks signed off in Doubtfire              | ✓                      |
| Web Application meets Credit Requirements (or more) | ✓                      |
| Design report meets Credit Requirements             | ✓                      |

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

|  | Included (please tick) |
|--|------------------------|
| Credit and Pass Tasks done, and Progress on Distinction Tasks. | ✓                      |
| Web Application meets Distinction Requirements (module 1)      | ✓                      |
| (module 2)   | ✓                      |
| Design report meets Distinction Requirements                   | ✓                      |

Minimum Distinction Checklist, in addition to Credit Checklist

|   | Included (please tick) |
|---|------------------------|
| Distinction Tasks Done, and Progress on High Distinction Tasks. |                        |
| Assignment Application meets High Distinction Requirements      |                        |
| Design report meets High Distinction Requirements               |                        |
| Research report meets High Distinction Requirements             |                        |

Minimum High Distinction Checklist, in addition to Distinction Checklist

### Declaration

I declare that this learning summary and the linked portfolio of work 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: Junyan Wang

### Introduction

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This report summarises what I learnt in FIT5032 Internet Applications 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 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. Task 1.1 A screenshot of my computer running the default website.
- 2. Task 1.2 An explanation of how MVC works.
- 3. Task 1.3 An explanation of the benefits that IDE like Visual Studio can bring to developers.
- 4. Task 2.1 A screenshot of my works by using HTML.
- 5. Task 2.2 Screenshots of webpage showing bootstrap grid system.
- 6. Task 3.1 A document detailing the differences between a .NET namespaces and Java packages.
- 7. Task 3.2 An explanation of the differences between 'String' and 'string'.
- 8. Task 4.1 A document detailing my preferred approach when using the Entity Framework and reasons why I select this approach.
- 9. Task 4.2 Screenshots showing my database application running by using 'Model First Approach'.
- 10. Task 5.1 Screenshot of my bootstrap datepicker.
- 11. Task 5.2 A document explaining the difference between defer and async with some screenshots of using it.
- 12. Task 6.1 A document explaining what jQuery unobtrusive is and how it works in combination with ViewModels.
- 13. Task 6.2 Screenshots showing my application with validation running.
- 14. Task 7.1 A document containing the notes of our group's discussion regarding the security vulnerabilities.
- 15. Task 7.2 Screenshots of ASP.NET Sign on function containing login page and database details.
- 16. Task 8.1 A screenshot of my SendGrid console.
- 17. Task 8.2 A document detailing the advantages and disadvantages of using 3rd party emailing tool.
- 18. Task 9.1 Screenshots of using responsive images.
- 19. Task 9.2 A document explain the difference between .woff and .woff2 font.
- 20. Task 10.1 Screenshots of my web API application running.
- 21. Task 11.1 A URL of my published website.
- 22. Distinction Design report: A document provide all the information about my website with proper screenshots and explanation.
- 23. Distinction Web Application: this program is called recipe website. The user can get recipe plan and create some posts. It also has signalR and email function.
- 24. Learning Summary: A document detailing the learning summary of this semester in FIT5032.

### Coverage of the Learning Outcomes

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

# LO 1: demonstrate the impact of the history of web applications development on current web-technology;

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

- Task 1.1 A screenshot of your computer running the default website demonstrate my ability to understand what is Visual Studio and how to use it fundamentally.
- Task 3.2 An explanation of the differences between 'String' and 'string' demonstrate my ability to distinguish different attributes and understand the difference between C# attributes.
- Task 7.1 A document containing the notes of our group's discussion regarding the security vulnerabilities demonstrate my ability to understand what DDoS is, the issues that DDoS can bring and the countermeasures that we can use.
- Task 9.2 A document explain the difference between .woff and .woff2 font demonstrate my ability to compare advantages and disadvantages of using the updated technical.

#### LO 2: design, construct and publish web-database applications;

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

- Task 7.2 Screenshots of ASP.NET Sign on function containing login page and database details demonstrate my ability to use ASP .NET Identity, Authorize attribute at basic level
- Task 9.1 Screenshots of using responsive images demonstrate my ability to use a responsive, user-oriented web design.
- Task 11.1 A URL of my published website demonstrate my ability to understand a simple deployment process with Azure and configure MS SQL in my application.
- Distinction Web Application

# LO 3: analyse and critique the key technological issues confronting developers building web-database applications;

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

- Task 4.1 A document detailing my preferred approach when using the Entity Framework and reasons why I select this approach demonstrate my ability to understand and compare different approaches by using the Entity Framework.
- Task 8.2 A document detailing the advantages and disadvantages of using 3rd party emailing tool demonstrate my ability to compare different approaches that we should consider when web-database applications development.
- Distinction Design Report demonstrate my ability to provide a detailed overview of the functionality of my application including systematic components and personal ideas.

# LO 4: test the key features of programming languages which are commonly used for developing web-database application;

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

• Task 1.3 An explanation of the benefits that IDE like Visual Studio can bring to developers demonstrate my ability to improve my developing efficiency.

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- Task 2.1 A screenshot of my works by using HTML demonstrate my ability to use the CSS and HTML properly in web-database application development.
- Task 2.2 Screenshots of webpage showing bootstrap grid system demonstrate my ability to build and change a web framework based on user experience.
- Task 3.1 A document detailing the differences between a .NET namespaces and Java packages demonstrate my ability to understand what C# is and the difference compared to Java.
- Task 5.2 A document explaining the difference between defer and async with some screenshots of using it demonstrate my ability to understand, implement and compare the different attributes in script programming.

# LO 5: assess the MVC design pattern and construct a web-database application using the MVC design pattern;

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

- Task 1.2 An explanation of how MVC works demonstrate my basic understanding of what MVC is and how to use it.
- Task 4.2 Screenshots showing my database application running by using 'Model First Approach' demonstrate my ability to generate a new database through Model First Approach in MVC framework without code writing.
- Task 6.1 A document explaining what jQuery unobtrusive is and how it works in combination with ViewModels demonstrate my ability to understand what a ViewModel is and how does Visual Studio simplifies the creation of forms.
- Distinction Web Application demonstrates my ability to use various technologies with ASP .NET MVC and build several modules to implement some advanced features.

# LO 6: apply, analyse and critique a professional approach towards the development of web-database applications.

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

- Task 5.1 Screenshot of my bootstrap datepicker demonstrate my ability to implement JS and jQuery components for my own project.
- Task 6.2 Screenshots showing my application with validation running demonstrate my ability to understand on how to use attribute validation,
- Task 8.1 A screenshot of my SendGrid console demonstrate my ability to understand how to send email using SendGrid API.
- Task 10.1 Screenshots of my web API application running demonstrate my ability to create and consume a RESTful Web API.

#### Reflection

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### The most important things I learnt:

In this unit, I acquired knowledge, understanding and professional technology about Internet application development and used it to explore and develop the first website that belongs to me. This not only includes my understanding and practice of the front-end programming language of the web page but also my understanding of the database and the overall operation of the MVC system. In this semester, I think the key knowledge points mainly include the responsive layout of Bootstrap, C#, Entity Framework, MVC, JavaScript and jQuery. The materials on Moodle helped me to develop a web application that contains a series of functions, but on reflection, my application could have been more advanced. For the front-end part, from HTML, CSS to Bootstrap, my web application emphasizes the design of the interface and the responsive layout as a means to enhance the user experience. When I designed the interface, the key technical issue was to understand and apply the bootstrap grid system and combine HTML and CSS elements for multi-level structure collocation. In practical programming, I gained valuable experience in how to write web pages on the front end. In terms of the back-end, Visual Studio impressed me as an enterprise-level IDE programming tool. It shows the impact of web application development history on current web technologies, and many times files and code can be generated automatically, greatly improving the efficiency of development. In addition, through learning the MVC design pattern, I deeply understood the framework of the web page and its three components and applied them to my project.

In general, I learned what I wanted to learn. However, I want to learn more about JavaScript and jQuery. Therefore, I will use the summer vacation to learn more about this aspect.

### The things that helped me most were:

The tutorial, lecture and consultation. Through these activities, I learned so much knowledge and also gained feedbacks from the tutor.

### I found the following topics particularly challenging:

- 1. Calendar function. Follow the instructions, I failed in implementing the calendar function. Then I searched for it on Google, watched videos on YouTube, and still could not do it.
- 2. jQuery. I feel very challenging about the knowledge about jQuery. It is often limited to this when actually developing a project. And because jQuery has so many knowledge, it takes much time to learn.
- 3. Database modification. In my web application, every time I tried to modify an existing database, the project will be crashed. Finally, I re-design and re-implement my database. But it takes so much time to do it. Therefore, although it is hard to think about everything when you design a database, you still need to try your best within the design stage.

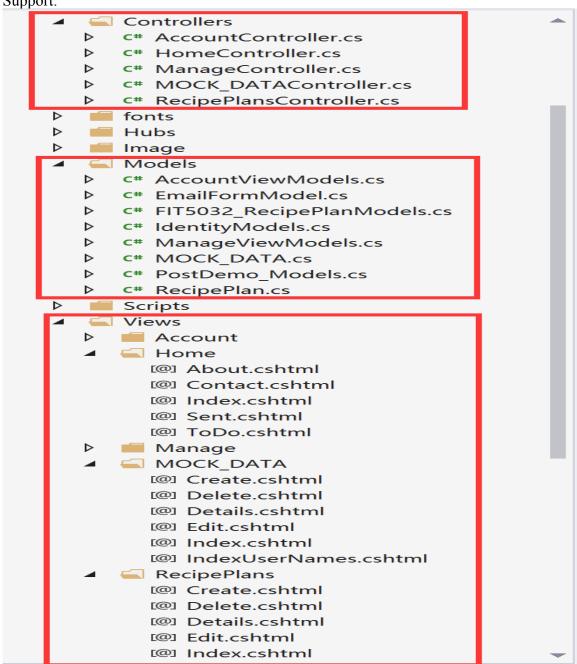
### I found the following topics particularly interesting:

1. Bootstrap. It is very interesting to write your own design page by using bootstrap.

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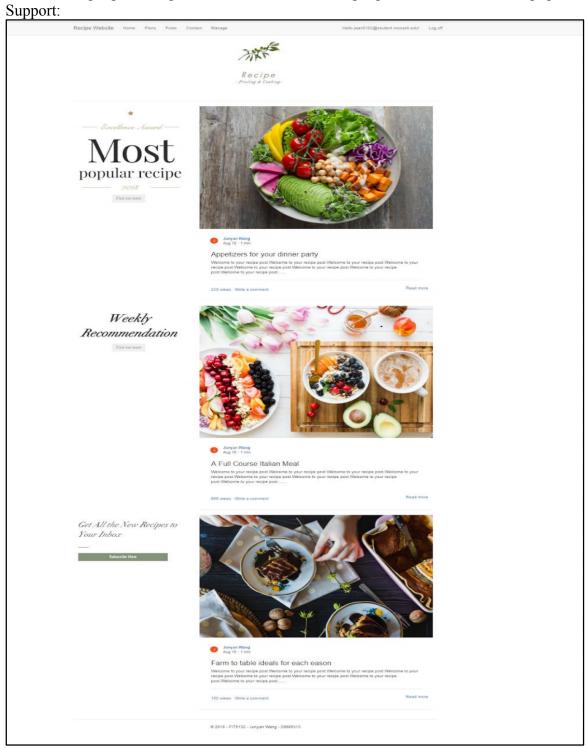
### I feel I learnt these topics, concepts, and/or tools really well:

1. MVC. I have mastered MVC through a learning practice and countless re-uses. Support:



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2. Front-end programming. I can use the front-end language to write modern web pages.



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3. Validation. I added proper validation in my project.

Support:

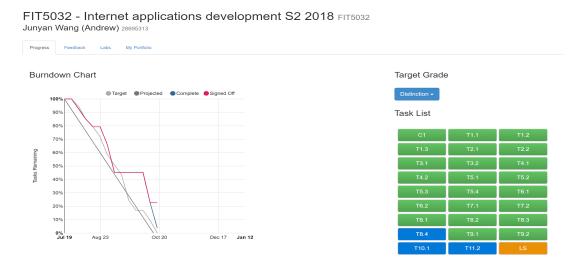
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4. Visual Studio. I am skilled at using visual studio.

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

- 1. JavaScript and jQuery. As mentioned above, I think my understanding of JS and jQuery is not deep enough. However, I think these two pieces of knowledge are very important, so I will definitely continue to work on these areas.
- 2. Database. Through this study, I found that the design of database is crucial for web applications. Therefore, I need to further study.

### My progress in this unit was:



As you can see from this screenshot, even though I was one day behind on all the projects I expected to complete with Oct 18, I still completed all the submissions on time.

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

This unit makes me realize the powerful function of enterprise development tools and learn the whole process from design to implementation. It is very interesting. I had hoped that I would become a Java programmer before, but after experiencing the joy of web development, Java seemed a bit uninteresting. I hope that I can be a web development engineer after my master's degree.

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

Reviewing the learning process of this semester, I was more relaxed in the initial stage. In fact, I can learn more knowledge in that time period.