Module Two
Practical Learning

Congratulations on completing module one of the MSA Programme. Module two is designed to help you get some practical experience with web development – an important skill for any role in New Zealand's tech industry. In this module you will be building a scalable cloud web solution using Microsoft Azure.

You should follow the steps in this document carefully to ensure you don't encounter any issues.

Preparation
1) You should have an activated DreamSpark Azure Account from Module One.
2) Install Visual Studio Code on your device (available on Windows and Mac)
3) Install NodeJS on your device.

We encourage all students to use a portable laptop that is capable of running IDEs and dev tools.

Learning Material
These videos are **_not assessed_** but are recommended to help you kick-start your learning for this module.

Introduction to Visual Studio Code	https://channel9.msdn.com/Series/Visual-Studio-Code-for-Mac-Developers/How-to-install
Visual Studio Code: Tips and Tricks	https://channel9.msdn.com/Events/Build/2016/B887
Introduction to TypeScript	https://channel9.msdn.com/Blogs/Seth-Juarez/Anders-Hejlsberg-on-TypeScript-2
Introduction to Cognitive Services	https://channel9.msdn.com/Events/Xamarin-Evolve/2016/Build-Smart-into-Your-App-with-Microsoft-Cognitive-Services

Web App
In Module Two, you will be required to build a functional and complete web app. Your web app can be on any subject or for any purpose. The app must be hosted on Microsoft Azure and draw in other functionality that is available to you on Azure. It must also make use of other features that are standard industry practice.

The app must be complete and ready for production when submitted to us.

To help you with building this app, the MSA team have provided links to useful videos above, we will also be hosting in-person tutorials and office hours to help you with module two which we will share at a later date. For students in remote regional areas, we will provide on-demand support and access to our recorded video sessions.

Basic Requirements

These are the basic requirements for your Web App. Your submission MUST have these implemented.

- Hosted and published on Microsoft Azure
- HTML5 / CSS for the UI (Responsive). We recommend Bootstrap.
- TypeScript for the logic, using dynamic API calls.
- Uses GitHub for Source Control, and Open Source

Advanced Features

In Addition to the basic requirements, your app must implement **at-least two** of the below:

- Makes use of any two JQuery Plug-ins
- Implements Application Insights
- Implements Facebook Sharing, Login or Comments
- Continuous Deployment via GitHub
- Makes use of SASS
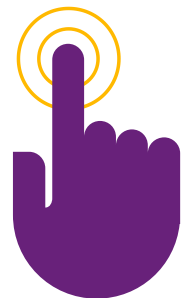- Makes use of Gulp or Grunt

How your app will be assessed?

The MSA Team will be assessing your app on a **pass/fail criterion**, your app must implement all the **basic** functionality and implement **two of the advanced features** to pass this module. We encourage you to start early to ensure you are able to complete this module well.

Submitting your Work

Module Two Live: 6th July 2016

Submission Portal Open: 16th July 2016

Module Two Deadline: 6th September 2016

1) Submit to http://submit.msa.ms **from** the 16th July 2016.
2) Enter all the details and submit.
- Please use the same email address you used to register for the MSA programme.

Submission Integrity

All work submitted must be your own. You are welcome and encouraged to collaborate with students on technical challenges and improvements, but you should not copy or modify someone else's work. You are welcome to use open source and appropriately licensed code (e.g. Bootstrap) for your submission.

Other Important Information

- Extensions are available for health or other exceptional circumstances. This must be applied for in writing to the nzedu@microsoft.com team and will be treated in-confidence.
- Have a question? Join the Facebook group and ask any technical questions there!
- You have **two** months to complete this module, we encourage you to start early.

Final Due Date: 11:59pm - 6th September 2016.