

MSA Assessment Introduction

This is an individual assessment where you will be ranked against your peers. The MSA team has set a minimum standard that we require all students to *pass but we will be* expecting to see work well above and beyond the minimum specifications (as per industry standards). Your project will need to be drastically different from our example project.

Basic Requirements

- Create a new React + TypeScript web app.
- Create a backend using GraphQL, saving data to a relational database with Entity Framework.
- Use Apollo Client to connect to your backend. React hooks and context for frontend state management.
- Use a UI library/styled components.
- Responsive UI (Web app displays “nicely” on both computers and mobile)
- Utilise source control via GitHub.
- Deploy frontend and backend using GitHub actions to deploy to Azure.

Note: Equivalents for the above can be used (for example, Azure DevOps in place of GitHub actions). Please check with the team to confirm before proceeding.

Advanced Requirements

We will fail students that do not tangibly attempt the following. Please complete as many as you can, feel free to work on your own advanced features. It will be at the discretion of your marker to determine if this feature meets the minimum requirement, you will also be expected to thoroughly explain your advanced feature during the presentation.

We recommend you to complete at least FOUR from either or combination of:

Frontend:

- Integrate all components with Storybook.
- Unit testing components using Jest.
- Use OAuth for authentication.
- Use React Router to handle navigation among the views of various components in your web app.
- Redux for state management in place of Hook and Context.
- Creation and usage of custom branding that is integrated into the product e.g. custom logo's, theming, dark mode toggle.

Backend:

- Integrate a call to a public API and use the data in a meaningful way.
- Use DataLoader library to optimise the calls for data fetching.
- Use a NoSQL database in place of a relational database.

A set of supporting documents, including the link to the workshop recordings, are available at: <https://github.com/NZMSA/2021-Phase-2>. This repository will be available after the first day of the workshop (24/07/2021)

Submission Format

You will be required to complete two specific submission tasks.

- 1) Upload your source code, documentation and all resources to your public GitHub repo and submit it using the link below. This is due on **11:59PM 09/09/2021**.
- 2) Present to the MSA team in-person at the assessment centre on **11/09/2021** (Note: Due to fluctuating COVID alert level, there is a possibility that this will be moved online. If this occurs, we will let students know via email and the Facebook Group ahead of time.)
 - a. Presentations are 15-minute slots.
 - b. 7 minutes of presentation. You should do a structured presentation using slideshows.
 - c. 7 minutes of Q&A from MSA team, we will be assessing your technical ability in depth.
 - d. Holistically, we will be assessing your intricate understanding of your solution, its application in the real world and your presentation as well as soft skills.

Academic Integrity

The MSA Programme strictly enforces academic integrity and students that do not uphold academic integrity will not be allowed to proceed within the programme. Any work you submit should be your work and differentiated from others if you have collaborated or troubleshooted with other parties. This includes any sample solutions and tutorials we provide. Please clarify with us at msaccelerate@hotmail.com if you have questions.

MSA Certificate

If you pass phase 2, you will be able to request a certificate from the MSA Team verifying your completion of the MSA Program.

Work Placement information

Work placement opportunities are available in the Auckland region across our partners. We ask employers to pay a minimum compensation of \$2000. Many employers will pay full wages. If there are more students who have passed Phase 2 than the number of placements, priorities will be given to students who have shown in-depth knowledge and dedication through the submission and the presentation.

Deadline: 11:59PM 9th September 2021

Submission Form:

<https://forms.office.com/r/MYLqKtTMkH>

You can book your presentation slot at the end of the submission form.

Have a question?

Ask on the [Discord Server](#) or [Facebook group](#)