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# 3

COMMON ASSESSMENT TASK

## Level 3 Digital Technologies and Hangarau Matihiko, 2019

### 91909 Present a reflective analysis of developing a digital outcome

Credits: Three

Achievement Criteria		
Achievement	Achievement with Merit	Achievement with Excellence
Present a reflective analysis of developing a digital outcome.	Present an in-depth reflective analysis of developing a digital outcome.	Present an insightful reflective analysis of developing a digital outcome.

Type your School Code and 9-digit National Student Number (NSN) into the header at the top of this page. (If your NSN has 10 digits, omit the leading zero.)

**Answer all parts of the assessment task in this document.**

Your answer should be presented in 12pt Arial font, within the expanding text boxes, and may only include information you produce during this examination session.

You should aim to write between **800–1500 words** in total.

**Save your finished work as a PDF file** with the file name used in the header at the top of this page ("SchoolCode-YourNSN-91909.pdf").

By saving your work at the end of the examination, you are declaring that this work is your own. NZQA may sample your work to ensure that this is the case.

**YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.**

**Achievement  
 03**



## INSTRUCTIONS

Read all parts of the assessment task before you begin.

Choose any digital outcome that you developed during the year.

Type your chosen digital outcome in the space below:

Web Application (Kai Finder)

Begin your answers on page 3.

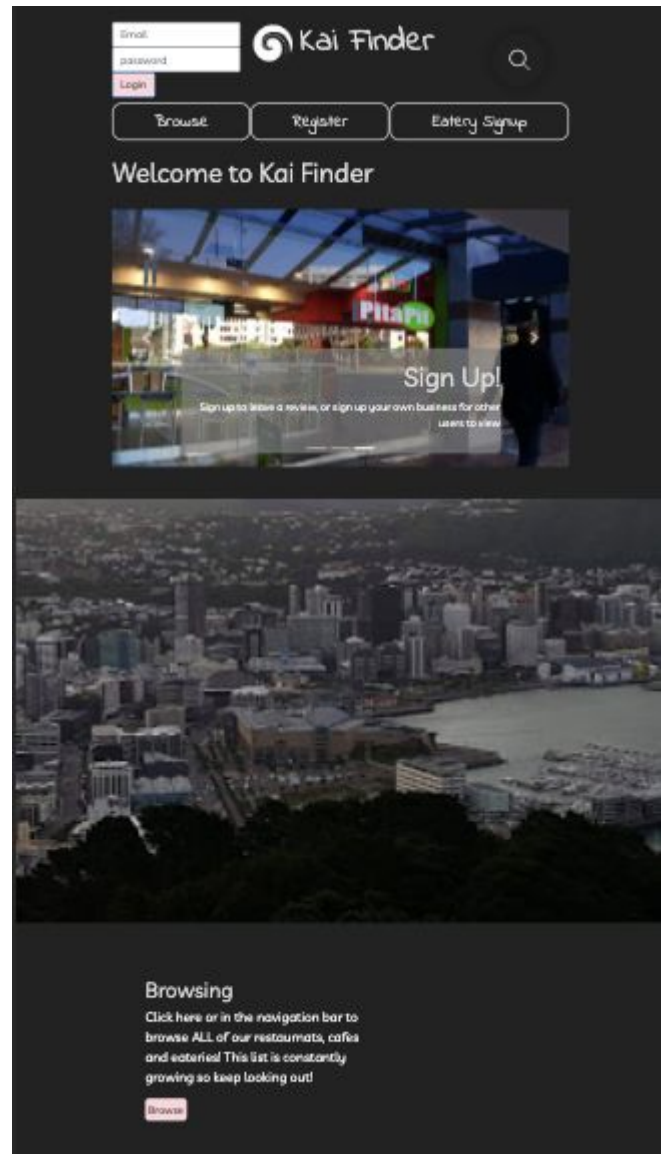
## ASSESSMENT TASK

- (a) (i) Describe and explain the digital outcome that you developed.


I have created a web application called Kai Finder. Kai Finder is a restaurant/ eatery finder for local business in wellington, that was created for the people who live in wellington and those traveling to it, and allows them to find eateries by name, cuisine, or location.

The aim of creating this app was to let locals and local businesses find and show themselves on an app. Compared to other food finding / ordering apps such as Yelp and Uber Eats, I found a lack of small local business on these big American apps, so if there was an app created in Wellington for Wellington, that owners could put their own business, then it would be both beneficial for them and those who are in wellington.

I created this app using software and code programs such as Pycharm, Flask, Bootstrap and Github, as well as planning tools like Trello, and code testers and validators such as WAVE and W3 Code Validator.



- (ii) Explain how decisions you made in the development process are **linked** to your chosen digital outcome's characteristics, referring to:
- the selection of the tools and techniques used to develop the outcome, AND
  - ways of addressing implications and end-user considerations.



The first decision that I made when creating Kai Finder was to make it accessible and usable by everybody. I believe that all applications should be accessible by everybody, so that no one is left out of using anything that they want. This meant that while coding and testing, I had to consciously think about accessibility the whole time. For example, making sure that every image has an alt tag, meaning that screen readers could identify them. Also while testing my website I used a program called WAVE which let me check contrast and font sizes, which proved vital in the overall outcome that I produced being able to be used by all.

The second decision that I made when creating Kai Finder was making sure the app was compatible for mobile devices. This was very important to me as it meant that people could use the app on the go wherever they are in Wellington and find a place to eat that is close to them. This was a requirement that I set myself early on in the development process, and I quickly learnt that the easiest way to do this was used responsive design elements on all classes in my code, so that my app looks good and functions on both web and phones. This benefits the end users as they are able to use a functional app on their mobile devices.

The third decision that I made when making Kai Finder was the choice of software. I decided before I started my app that I wanted to specifically use Pycharm, and also the micro framework, Flask. Pycharm is usually used for programming, and that is also what I have used it for in the past, so using it for html is a little strange. However, pycharm combines html, programming and databasing all in one, meaning that I was easily able to link all the elements together in one place. This cut down on a lot of time in the development process for me, but also means that my sight is not pulling data from two or three different places to make the overall app run.

(b) (i) Explain how decisions you made **affected** the development process of your chosen digital outcome's characteristics, referring to:

- the selection of the tools and techniques used to develop the outcome, AND
- ways of addressing implications and end-user considerations.

The first decision that I made that affected the development process was the use of user testing. User testing is vital for not only the overall look of the web app, but also the way I am developing it, and removing my own personal bias. I made sure that I was getting different people from different age groups to test my sight, so that they could give feedback at each stage and release that I created. This not only lead to me changing quite a lot of components in my app throughout the development process, but also helped me realise that I was designing this app for all kinds of different people, and really helped me to remove any personal bias I had over the look and functionality of Kai Finder. This was vital going forward, as I learned to design more for the users and not myself, and keeping that in mind while in the development process has definitely changed the overall outcome for the better.

The second decision that I made that affected the development process was the choice of software. Again using Pycharm and Flask in my application. However, I had never used Flask before, nor used Pycharm in the way I was using it to develop my app, so it took quite a lot of time out of the project to make sure that I knew how to use these pieces of software properly. However, putting in all the effort did pay off, as once I had mastered how to code using Pycharm and Flask, I found myself completing tasks and reaching goals a lot quicker. So even though I didn't start the project getting much done, I was able to speed up this process once I had put in the work.

(ii) Explain how the development process of your chosen digital outcome was guided by the new knowledge and skills that you gained during that process.

The first new skill I gained while developing my web app was the use of personas. I have never used or created personas before, so the thought of doing so was a bit odd. However, I found these to be highly beneficial, as, like user testing, I learned to remove personal bias, and design for the end users. This guided me through the process of development through a lens, that let me see how I need to develop this app so that it would be usable, accessible and functional for a whole city.

The second new skill that I gained while developing my web app was scrum and agile planning. Again, I had never really done extensive planning and documenting of a project while in the development process. I used scrums in google slides to document components of my app, and while this is a tedious process, I was guided by these scrums and this made the components that I did document to be much more effective than ones that I didn't. I also used Trello, which is a project planning board throughout the development process. When we first started using it, I didn't really see the point, but as the project started getting bigger, I found it vital to be able to see what I have completed and what I still needed to do. Both of these planning tools were absolutely vital, and the overall outcome I feel would have been vastly different without them.

- (c) (i) What could have been done differently to improve both the development process and digital outcome, and why?

The first thing that I would have done differently was using scrum and planning boards more often. At the start of the development process, I was ready to start coding, and didn't take much effort to stop and plan out my next moves, and document what I had already done. If I had done this throughout the whole process, I felt that I could have saved a lot of time at the start of the development process, as I would have already known what I had done, and what I needed and wanted to get done and the project moved forward. Looking back this would have saved a lot of time and effort, and would have also let me reflect on my learning in the use of Pycharm, Flask and Github to a greater extent. This could have also lead to my app being more efficient as it is now, and more targeted towards the overall end users.

The second thing that I would have done differently was to spend more time learning more about Flask and Pycharm. These apps were still very new to me, and the use of routes and templates for the app, I had also never heard of. I felt that if I had put much more time and effort into understanding how these worked, then I would have been much more confident throughout the majority of the development process, and would have saved a lot of time skimming through notes and asking for help on all the errors I started to encounter. Overall if I was to put more effort, I would have felt much more comfortable with myself, but also the overall outcome could have been completed to a higher standard and be more efficient.

- (ii) What conclusions can you draw from your completed digital outcome and / or the development process? In your conclusions refer to:

- the exploration of less-obvious implications, including intellectual property and cultural implications, AND
- innovative connections.

I drew a conclusion while reflecting on my overall outcome that I could have done was turn my app into an API. This would let other apps such as Yelp and Uber Eats use my reviews for certain restaurants, and also let me use their reviews. This would let many more reviews on my website, and let users gain a much better understanding of the restaurant, ultimately letting them decide if they want to go there or not. However, this opens up a big privacy issue for users who have signed up to Kai Finder. As at current, my users have not given permission to use any reviews that they have created to be shared. Privacy is a big issue that falls under intellectual property, as this is the work of the users who created the reviews. I feel like the easiest way to check with users is to create a form or button that they can tick if they want that says any reviews that are created could be shared with other parties. Thousands of other websites do this, or it will be stated in the terms and conditions. This could boost the number of reviews on my sight without needing a huge amount of existing users to create more reviews.

A big cultural implication that I found while developing was accessibility. I found recently that there is nothing that stops website or app with very poor or no accessibility to be published, this could mean that massive apps that are used everyday by millions of people could be unusable by a minority of people. While I found that a lot of developers and app are made with accessibility in mind, I feel



that a lot of apps that I have used could also be improved so that they are easy to use for everybody, whether it be navigation, colour contrast, or font size. I believe that it is vital that this is seen in every app.

## Achievement Exemplar 2019

<b>Subject</b>	Digital Technologies	<b>Standard</b>	91909	<b>Overall grade</b>	03
<b>Q</b>	<b>Grade</b>	<b>Annotation</b>			
		The candidate chose and explained the digital outcome. They linked the outcome's characteristics to decisions they made as regards Tools and Techniques. They also touched on ways to address implications and end-user considerations, which was done in great detail. There was no analysis of how decisions made affected the development process.			