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91909

NZQA | Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

COMMON ASSESSMENT TASK

Level 3 Digital Technologies and Hangarau Matihiko 2025

91909 Present a reflective analysis of developing a digital outcome

Credits: Three

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 space below. (If your NSN has 10 digits, omit the leading zero.) It should look like '123-123456789-91899'.

SchoolCode-YourNSN-91909

Answer ALL parts of the assessment task in this document.

You should aim to write **800–1,500 words** in total.

Your answers should be presented in 11pt Arial font within the expanding text boxes.

The only resources you may access during this assessment are the three images you have prepared in advance. Access to your digital outcome, online or paper resources, and the Internet, is not permitted.

Save your finished work as a PDF file (SchoolCode-YourNSN-91909.pdf).

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

Achievement TOTAL 04

Instructions

The task in this assessment requires you to discuss a digital outcome you have developed within the past 12 months.

You are not permitted to access any resources (either in hard copy or online) other than those supplied in the assessment itself. Access to your digital outcome, AI material, online or paper resources, other Word or PDF documents, and the Internet is not permitted.

You must illustrate your answers with three .jpg or .png images you have prepared in advance:

- a single image of the digital outcome (e.g. a website, a brand identity package, an electronic device)
- a single sample image showing a relevant digital component of the outcome in the software used to create it, for example:
    - the HTML / CSS for a website in a text editor (e.g. VS Code, Notepad++)
    - the 'layers' view of a vector or raster graphic (e.g. in Inkscape / Illustrator, GIMP / Photoshop)
    - the source code for controlling an electronic device (e.g. in Arduino C, PBasic)
    - the CAD / CAM file for a 3D model (e.g. in Blender, Fusion 360, SketchUp)
    - the source code for an application in a suitable text editor (e.g. VS Code, Replit)
- a single image of your development process (e.g. agile development, a planning chart, etc).

If you developed your digital outcome as part of a group, you must only write about your role and your specific contributions to the project.

Read all parts of the task before you begin. Do not repeat your response in different parts of the question.

You must complete your assessment individually under teacher supervision, in accordance with the NCEA Assessment and Examination Rules and Procedures. The material submitted for assessment must be your own work.

You are not permitted to share or discuss this assessment or your assessment responses with any other schools, teachers, or candidates until after the final date for submission (12 September 2025).

The use of chatbots, generative AI, paraphrasing tools, or other tools that can automatically generate content is not permitted, and material generated by these tools should not be submitted as part of your work.

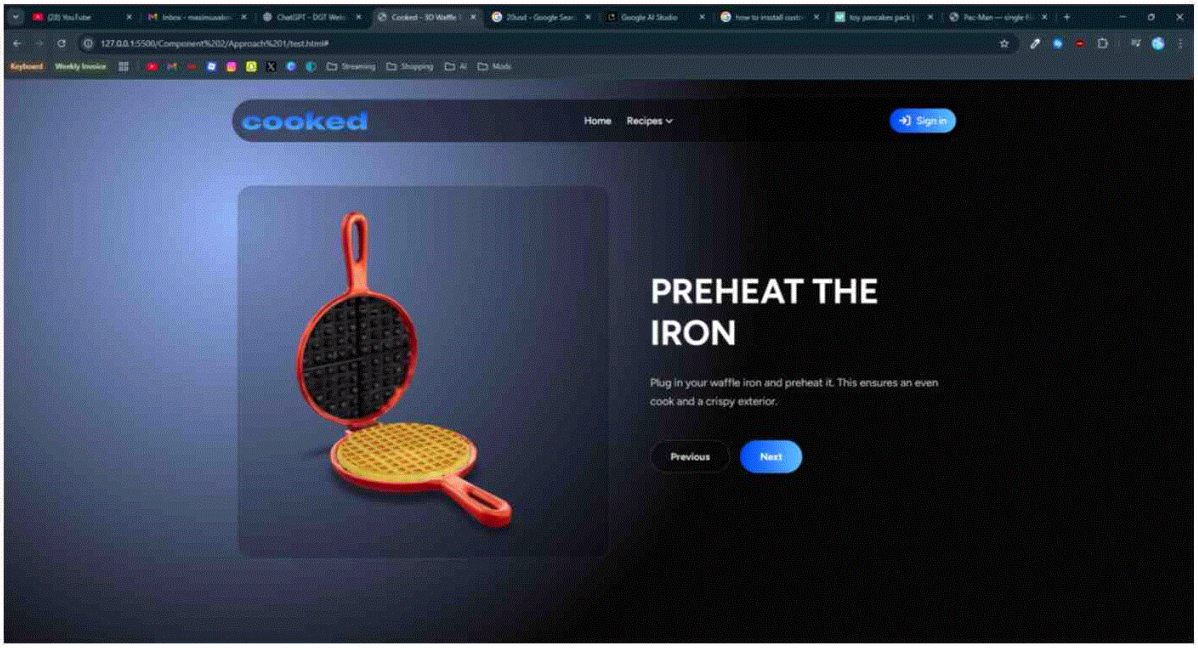
(Assessment Specifications, NZQA 2025)

Assessment Task

Name the type of digital outcome you created (e.g. website, app, magazine, animation, etc.):

Website

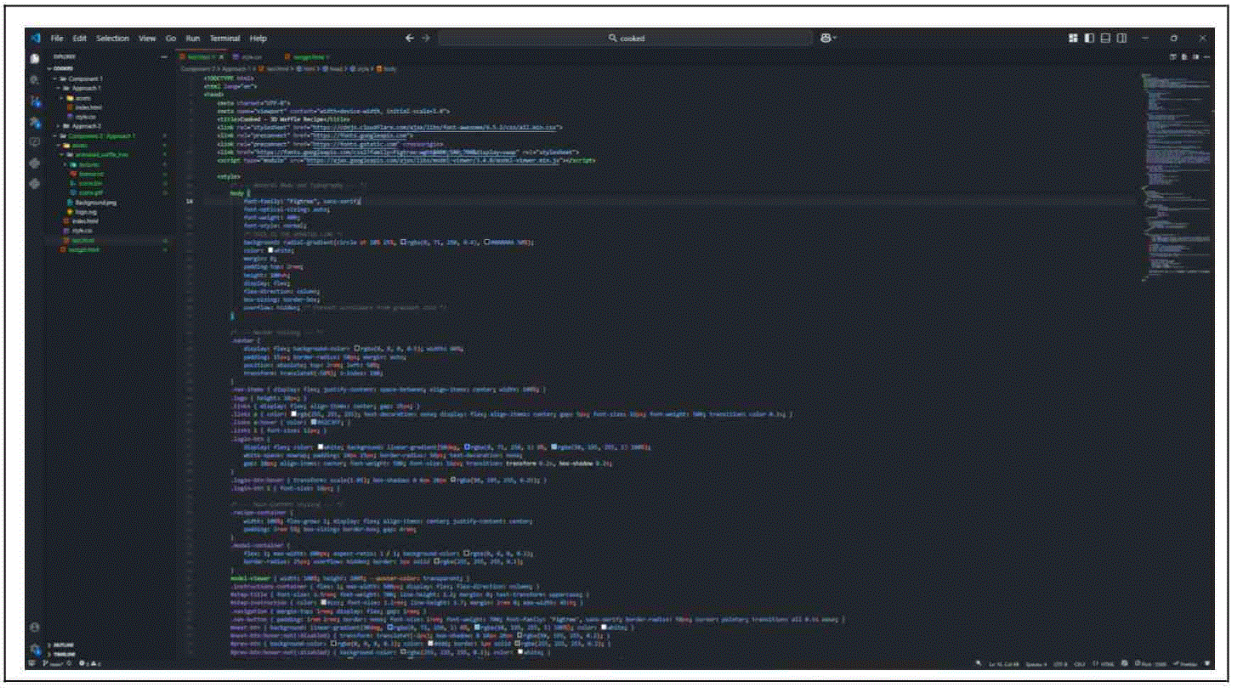
Insert the image of your digital outcome in the box below.



Name the main software used to develop the digital component of your outcome:

Visual Studio Code

Insert the image showing a relevant digital component of your outcome in the software used to create it in the box below.



Insert the image of your development process in the box below.

The process of developing initial wireframes for the design of my website “Cooked”

Digital outcome

(a) Explain the digital outcome you created, including its purpose and intended audience / users, the environment it is found in, its functionality, key features, and aesthetics.

My website “Cooked” is designed to make learning to cook simple and accessible for beginners. Its purpose is to provide a visual and interactive way for users to follow recipes, reducing the confusion that often comes with text-based instructions. Each recipe is presented with 3D models for every step, allowing users to clearly see what the ingredients and final product should look like at each stage. By offering this approach, Cooked encourages users to build confidence in their cooking skills and enjoy the process of preparing meals.

The main users of Cooked are beginner cooks aged between 12 and 30. These users may feel overwhelmed by traditional recipe books or online instructions that contain too much text or assume prior knowledge. The website has been designed with these users in mind, using a clean interface and clear, simple navigation. Key features include interactive 3D models for each step, step-by-step navigation with arrows and progress tracking, and realistic thumbnails showing the finished dish. These features make it easier for users to follow recipes accurately and learn effectively. The design of the website is minimal, with a sleek blue and black colour scheme and there are never any distracting ads that take up half the screen, which many cooking websites seem to have.

(b) (i) Name a key feature, quality, or attribute of your digital outcome that relates to your choice in software used to develop it.

Interactive 3D models for recipe steps.

(ii) Briefly describe a decision you made that relates to the key feature, quality, or attribute named in (b)(i) above.

A key decision I made when implementing interactive 3D models was to use the extension “Live Server” on Visual Studio Code. I had to do this because I found that when you run a website locally from your computer (just opening the file), the browser doesn’t have permissions to access the computer's file system. This becomes an issue when loading 3D models because the browser can't access them, therefore it is not possible for the model to load. This is where “Live Server” comes in; Live Server is an extension for Visual Studio Code that runs a local server hosted from your computer that you can run your website on. This allows the browser to access the 3D models and in turn, load them successfully on my website. The decision to use VS Code was essential, because otherwise if I used another text editor like “Notepad++” that doesn’t have an extensive extension library, I might have had much more trouble getting my website to run in the development process.

(iii) Analyse the impact that your decision from (b)(ii) on page 4 had during the development process, and discuss how this decision affected the **functionality, aesthetics, and usability** of your digital outcome.

The decision to use Visual Studio Code and its “Live Server” extension impacted the development process extremely positively. It led to the development process being more streamlined, and efficient. This is because of another feature of the “Live Server” extension and where it gets the “live” from. This feature allows the website to update instantly when you make any changes to the HTML, CSS, Javascript or make any change like adding an image to the website. This significantly increased the pace of development because it saved me having to manually save, then close and reopen the HTML file in file explorer.

The decision to use VS Code and the “Live Server” extension inherently affected the aesthetics of my website because it made making small changes to visual elements of the website easier and faster. This led to improved aesthetics because it was easier to play around with different CSS options without having to completely close and reopen the HTML file.

Live Server also allowed me to tweak small things like button sizes or padding with ease, allowing me to effectively improve the usability of the website, by implementing better UX principles within my website.

(c) (i) Name a key feature, quality, or attribute of your digital outcome that relates to **cultural, ethical, sustainability, or future-proofing** implications.

Responsive Design

(ii) Briefly describe a decision you made that relates to the key feature, quality, or attribute named in (c)(i) above.

Cooked was developed with a responsive design from day one. I made the decision to do this because I wanted to future proof the website for all sorts of devices. Even though I knew that the website would most likely not be used on other devices like phones or tablets anytime soon, I still believed it would be better to implement it as I went than implementing it afterwards.

(iii) Examine how the decision you described in (c)(ii) above influenced the way you developed your digital outcome, and explain how it affected the final outcome.

Choosing to make the website responsive from day one forced me to learn new coding techniques and practices. It also changed my mindset whilst developing the website, as making the website almost became standard, a normal part of my workflow. Because of this I barely even thought about it towards the end. This is a positive outcome because now when I am coding future websites, it will just be second nature to make websites I develop responsive. This affected my final outcome greatly with it being more accessible to more and more people on a wide range of devices. This decreases the barrier to entry for beginner or inexperienced cooks which can drive healthier eating habits and make people's mental and physical health much better. By increasing people's confidence in the kitchen, their mental health will in turn be improved and by eating better food and getting less takeout foods they can improve their physical health.

Knowledge and skills

(d) Explain what new knowledge you gained and how you used your skills to apply this knowledge in practice, within your development process.

Note: Examples given can be of a positive or negative type.

Developing Cooked allowed me to gain a range of skills. I learned how to import Blender models into Three.js and make them interactive in a web browser. I applied user interface and user experience design principles to create clear step-by-step navigation for beginners. My coding skills in JavaScript, HTML, and CSS improved as I integrated the 3D models and solved technical problems. Additionally, I developed project management skills by using Trello and Figma to plan, organise, and track the development process effectively.

Evaluation

(e) (i) Reflect on what could have been done differently in your development process, and how this would enhance the quality or effectiveness of your digital outcome.

Reflecting on the development process, there are several things I could have done differently to improve the quality of Cooked. Conducting more detailed user testing with beginner cooks would have helped to refine the clarity of steps. Adding optional audio instructions could improve accessibility for users with visual impairments. Additionally, designing the website with a mobile-first approach from the start would make it easier to use on smaller devices.

(ii) Evaluate how problem-solving and your personal experience contributed to the successful development of your final digital outcome.

Problem-solving was an important part of the development process. I trialled different methods of navigating 3D models to find the most user-friendly approach. I adjusted the complexity of the models to balance visual clarity with performance. Debugging and testing the website improved my coding skills and confidence in implementing interactive features. Overall, the planning, testing, and refinement process led to the creation of a functional and user-friendly digital outcome that supports beginner cooks in learning new recipes effectively.

Achievement

Subject: Digital Technologies

Standard: 91909

Overall grade: 04

Grade	Marker commentary
A4	The candidate reached Achievement level by adequately describing their digital outcome and drawing basic connections between the tools used and the final features. For instance, they clearly identified the purpose of their website as a visual tool for beginner cooks, and linked their choice of Visual Studio Code and the Live Server extension directly to the technical requirement of loading interactive 3D models which browsers could not access locally. This met the standard, because it demonstrated a functional understanding of how a specific software decision was explained as the solution to a technical problem, i.e. file system permissions. To secure a higher grade, the candidate would have needed to move beyond linking benefits like efficiency and instead analyse how those benefits fundamentally altered the development process. While they noted that Live Server made updates instant and saved time, they could have explained the deeper implications of this speed. A strong analysis would have weighed the trade-offs of decisions, such as discussing whether implementing responsive design from the start increased initial code complexity or required specific layout strategies, rather than simply stating that it was a positive future-proofing measure. Also, the candidate could have explained how new knowledge and skills actively guided the project's direction, rather than just listing what was learned retrospectively. The candidate stated that they learned to import Blender models into Three.js and adjusted model complexity, but they could have described how this technical understanding resolved specific crises or dictated development choices. They also could have demonstrated how researching specific constraints, such as WebGL memory limits, forced them to alter their asset creation or redesign the loading system, thereby showing that their acquiring of new knowledge informed the successful creation of the digital outcome.