

Title	Design and create an integrated digital solution to meet the requirements of a specified brief		
Level	4	Credits	5

Purpose	<p>People credited with this unit standard are able to: investigate, plan, and create conceptual designs for an integrated digital solution; and create, test and evaluate an integrated digital solution to meet the requirements of a specified brief.</p> <p>This unit standard has been developed primarily for assessment as an option within programmes leading to the New Zealand Certificate in Computing (Advanced User) (Level 4) [Ref: 2593].</p>
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Classification	Computing > Generic Computing
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Available grade	Achieved
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Guidance Information

- 1 Recommended skills and knowledge:
Unit 29793, *Investigate, plan, design and create digital outcome solutions to meet the requirements of a specified brief*, or demonstrate equivalent knowledge, skills and experience.
- 2 Assessment, where applicable, will be conducted in and for the context of a real or realistic situation and/or setting with conditions that demand performance equivalent to that required in the real-life context, and be relevant to current and/or emerging practice. For the purposes of this unit standard the stakeholder must be authentic, and may include the learner's assessor, real clients, family members, or other learners. The assessment context for this unit standard must be suitable to meet the criteria for level 4 in the NZQF Level Descriptors, which are available by searching for "level descriptors" at www.nzqa.govt.nz.
- 3 A brief will be supplied to the learner, either as part of the learner's employment (in the case of workplace assessment) or in response to a set task. The specified brief must clearly identify the problem/s and the outcomes required by the stakeholder from the solution/s; include meeting appropriate legal, ethical and moral considerations; and provide for demonstration of advanced level computing user skills integrated across a range of applications and digital devices.

A basic outline of the text and media content for the integrated digital outcome may be provided to the learner. The brief must contain requirements against which the success or otherwise of the integrated digital solution can be assessed, which must include the finished product being suitable for organisational use and complying with relevant legislation.

- 4 Integrated assessment linked to the following unit standards may be suitable to provide the project context for creating integrated digital solutions:
- Unit 29799, *Apply advanced word processing features and functions to produce complex documents;*
 - Unit 29800, *Apply advanced spreadsheet features and functions to meet the requirements of a brief;*
 - Unit 29801, *Plan, create, test, and implement an interactive multimedia product to meet the requirements of a brief;*
 - Unit 29802, *Design, create, operate, and test a relational database to address an organisational information system need;*
 - Unit 29803, *Use a desktop publishing application to produce documents integrating media for a client;*
 - Unit 29804, *Develop and evaluate an interactive website for a client.*
- It is also suitable as the project for Unit 29790, *Use digital tools to create and monitor a project plan.*

5 Definitions

Advanced level use of a range of digital applications refers to digital literacy and competency beyond the intermediate level to develop the digital solution. The range of techniques are detailed further in the Level 4 unit standards developed for the use of the relevant range of software applications.

Conceptual design is a representation clearly indicative of the final product. A conceptual design clearly communicates a proposed outcome that has the potential to address the brief. Conceptual designs can be presented using a variety of techniques, and provide a detailed description of how the outcome would look and function.

Digital devices refer to electronic computing devices that can receive, store, process or send digital information, such as computers (desktop or laptop), tablets, smartphones or other emerging digital technologies.

A *digital solution* refers to what is developed from the conceptual design using stakeholder feedback and is reflective of relevant codes of practice, and may be a prototype. A prototype may be a completed outcome ready for use or a functional model of the outcome.

Digital tools may be both hardware (digital devices) and software (applications and programs).

Emerging technology refers to digital devices and technological concepts that are new to market.

Fitness for purpose refers to the likelihood of the conceptual design and solution meeting the requirements of the brief.

Good practice refers to selecting and using the appropriate feature or function to enable the safe, ethical and correct use of the chosen digital devices and platforms according to standard professional conventions for practice.

Ongoing refers to iterative feedback and development considering the stakeholder feedback and other information from research, testing, and/or trialling.

Stakeholder refers to any group or individual who can affect or is affected by the development and/or implementation of the outcome. For this standard the stakeholder should be authentic and may include but is not limited to the assessor, other learners, real clients, family members or other people affected by the design. *Testing plan* refers to the details of how the product is going to be tested to ensure that it meets the specifications of the brief and good practice, including features, functions, expected output, data validation and accessibility testing.

- 6 Legislation relevant to this unit standard may include but is not limited to the:

Copyright Act 1994

Copyright (New Technologies) Amendment Act 2008

Harmful Digital Communications Act 2015

Health and Safety at Work Act 2015

Privacy Act 2020

Unsolicited Electronic Messages Act 2007

and any subsequent amendments.

Current legislation and regulations can be accessed at <http://legislation.govt.nz>.

- 7 Reference

ACC5637 Guidelines for Using Computers - Preventing and managing discomfort, pain and injury. Accident Compensation Corporation - Department of Labour, 2010; available from Worksafe New Zealand, at <https://www.worksafe.govt.nz/topic-and-industry/work-related-health/ergonomics/safely-using-computers-at-work/>.

Outcomes and performance criteria

Outcome 1

Investigate, plan, and create conceptual designs for an integrated digital solution to meet the requirements of a specified brief.

Range digital solution created must use advanced techniques with at least three different applications; be appropriate for the target audience defined by the stakeholder and suitable for organisational use; and be of sufficient complexity to provide scope for the assessment evidence.

Performance criteria

- 1.1 A plan is developed and revised to specify how the requirements of the brief will be realised and showing changes and procedures to resolve issues arising during the project.

Range plan includes purpose, target audience, specifications, constraints, integration requirements, milestones, resources, testing plan procedures, and timings for stakeholder engagement.

- 1.2 Existing ideas and potential solutions for the brief are evaluated.

- 1.3 Concepts based upon ongoing investigation, stakeholder feedback and research are generated.

Range may include but is not limited to – sketches, storyboards, entity relationship diagrams, visual diaries, blogs, concept maps, annotations, wireframes, models and mock-ups.
- 1.4 Conceptual designs are selected and developed, in accordance with the specifications of the brief and ongoing stakeholder input.
- 1.5 Conceptual designs are evaluated against the brief and recommended solutions presented to stakeholder for feedback.

Range includes – fitness for purpose, strengths, limitations, possible improvements, capacity for further development.

Outcome 2

Create, test and evaluate an integrated digital solution to meet the requirements of a specified brief.

Performance criteria

- 2.1 Existing and emerging techniques and digital tools that may be used in the development of the integrated solution are investigated and evaluated.
- 2.2 A solution is created which applies techniques and digital tools consistent with the requirements of the brief.

Range includes but is not limited to – advanced use of a range of digital applications to develop the integrated solution.
- 2.3 Ongoing testing and trialling procedures, and stakeholder feedback are used to inform the development of the integrated digital solution consistent with the requirements of the brief.

Range trialling includes – the layout, usability, function of the solution, and the tools and techniques used to create the solution.
- 2.4 Final developed integrated digital solution is evaluated against the brief and stakeholder feedback.

Range includes – strengths, limitations, possible improvements, capacity for further development, fitness for purpose, compliance with legal requirements and good practice.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 January 2017	31 December 2024
Review	2	28 April 2022	N/A

Consent and Moderation Requirements (CMR) reference

0099

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Toi Mai Workforce Development Council qualifications@toimai.nz if you wish to suggest changes to the content of this unit standard.