Title	Create a simple computer program to meet a set brief		
Level	2	Credits	3

Purpose	People credited with this unit standard are able to: plan a simple computer program to meet the specifications of a set brief; create code; and test and evaluate the program against the brief for fitness for purpose.

Classification	Computing > Software Development - Programming

Available grade	Achieved

Guidance Information

1   Recommended skills and knowledge:
Unit 18739, *Create and use simple command sequences in a procedural computer language*, or demonstrate equivalent knowledge, skills and experience.

2   For the purposes of this unit standard, the level of programming skill required is not intended to indicate programming ability at professional or commercial levels.

3   A *brief* is defined as a clear description of both the desirable outcomes sought and the constraints to be met by the solution. It contains specifications against which the success or otherwise of the program can be evaluated, and will include a testing plan. The brief for the program will be supplied by the candidate's tutor, teacher or assessor.

4   A *plan* outlines how the requirements of the brief will be realised. For this unit standard, the plan may be informal, and may be modified during the task and changes justified. It may be appropriate to produce some evidence of planning during task completion rather than prior to starting the task or project. Evidence of planning may be oral, written, and/or graphic.

5   Definition
Internal documentation means documentation included as comments within the program code, rather than documentation created separately.

6   Legislation relevant to this unit standard includes 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
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 http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/guidelines-for-using-computers.

Outcomes and performance criteria

Outcome 1

Plan a simple computer program to meet the specifications of a set brief.

Performance criteria

1.1   A plan is developed to meet the specifications of the given brief and outline a logical design or model to be used as a basis to code the program.

    Range   plan includes but is not limited to – milestones, resources; purpose, structure and specifications of the program; computer language to be used; input and output requirements; outline of the proposed testing procedures.
    logical design may include – flow charts, pseudocode, natural language

Outcome 2

Create code.

Range   may include but is not limited to – sequence, selection, repetition, conditional execution, variables, labels, procedures and functions;
    a minimum of four structural elements are required.

Performance criteria

2.1   The code is created in accordance with the plan and follows the conventions of the chosen language.

2.2   Following the conventions of the chosen language, meaningful names are applied to all user-defined elements of the program code to facilitate understanding of the program.

2.3   The code is internally documented according to the requirements of the brief.

    Range   each section of code must contain sufficient comments to explain its purpose.

Outcome 3

Test and evaluate the program against the brief for fitness and purpose.

Performance criteria

3.1   The program is tested for compliance with the brief, to find and eliminate any errors, and code is modified as required.

Range   includes but is not limited to – valid, invalid, boundary cases.

3.2   The operation of the program is evaluated and confirms that the specifications set out in the brief are realised.

Planned review date	31 December 2026

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 October 2002	31 December 2013
Revision	2	16 July 2004	31 December 2013
Review	3	22 May 2009	31 December 2013
Revision	4	18 February 2011	31 December 2015
Rollover and Revision	5	19 September 2013	31 December 2019
Review	6	19 January 2017	31 December 2024
Review	7	26 May 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.