

# VCE Data Analytics 2024

## Unit 3 School-based Assessment

### Video 5

#### Using the Unit 3 Outcome 1 SAC Template

# Acknowledgement of Country

The VCAA respectfully acknowledges the Traditional Owners of Country throughout Victoria and pays respect to the ongoing living cultures of First Peoples.



# VCE Data Analytics 2024

## Unit 3 School-based Assessment

### Video 5

## Using the Unit 3 Outcome 1 SAC Template

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VCAA



VICTORIAN CURRICULUM  
AND ASSESSMENT AUTHORITY



# Purpose of this session

- to build the capacity of teachers to develop compliant, rigorous and engaging VCE assessment tasks in line with the VCE assessment principles
- provide an overview of how to use the Unit 3 Outcome 1 School-assessed Coursework (SAC) task template.

# Unit 3 Outcome 1

# Unit 3 Outcome 1 – The outcome

On completion of this unit the student should be able to respond to teacher-provided solution requirements and designs to extract data from large repositories, manipulate and cleanse data and apply a range of functions to develop software solutions to present findings.

# Key knowledge

## ***Data and information***

- techniques for efficient and effective data collection, including methods to collect census, Geographic Information System (GIS) data, sensor, social media and weather
- factors influencing the integrity of data, including accuracy, authenticity, correctness, reasonableness, relevance and timeliness
- sources of, and methods and techniques for, acquiring authentic data stored in large repositories
- methods for referencing primary and secondary sources, including American Psychological Association (APA) referencing system
- characteristics of data types

## ***Approaches to problem solving***

- methods for documenting a problem, need or opportunity
- methods for determining solution requirements, constraints and scope
- naming conventions to support efficient use of databases, spreadsheets and data visualisations

- a methodology for creating a database structure: identifying entities, defining tables and fields to represent entities; defining relationships by identifying primary key fields and foreign key fields; defining data types and field sizes, normalisation to third normal form
- design tools for representing databases, spreadsheets and data visualisations, including data dictionaries, tables, charts, input forms, queries and reports
- design principles that influence the functionality and appearance of databases, spreadsheets and data visualisations
- functions and techniques to retrieve required information through querying data sets, including searching, sorting and filtering to identify relationships and patterns
- software functions, techniques and procedures to efficiently and effectively validate, manipulate and cleanse data including files, and applying formats and conventions
- types and purposes of data visualisations
- formats and conventions applied to data visualisations to improve their effectiveness for intended users, including clarity of message
- methods and techniques for testing databases, spreadsheets and data visualisations

## ***Interactions and impact***

- reasons why organisations acquire data.

# Key skills

- interpret solution requirements and designs to develop data visualisations
- identify, select and extract relevant data from large repositories
- use a standard referencing system to acknowledge intellectual property
- organise, manipulate and cleanse data using database and spreadsheet software
- select, justify and apply functions, formats and conventions to create effective data visualisations
- develop and apply suitable validation and testing techniques to software tools used.



# Unit 3 Outcome 1 – The assessment task

## Contribution to final assessment

School-assessed Coursework for Unit 3 will contribute 10 per cent to the study score.

Outcomes	Marks allocated	Assessment tasks
<b>Unit 3</b> <b>Outcome 1</b> Respond to teacher-provided solution requirements and designs to extract data from large repositories, manipulate and cleanse data and apply a range of functions to develop software solutions to present findings.	100	In response to teacher-provided solution requirements and designs, create software solutions.
<b>Total marks</b>	100	

# Using the Unit 3 Outcome 1 SAC Template

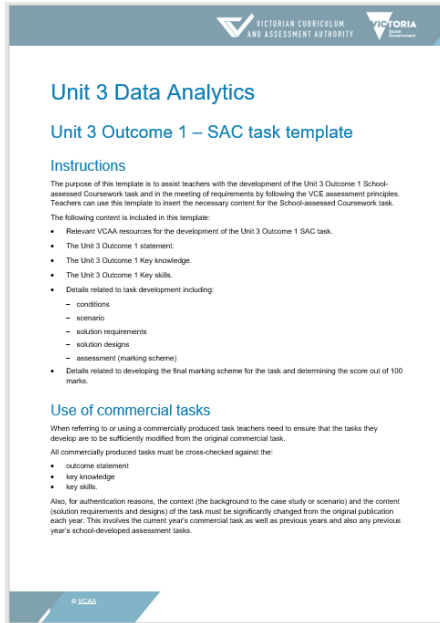
# Why use the VCAA SAC Template?

The purpose of the Unit 3 Outcome 1 SAC Template is to assist teachers with the development of the Unit 3 Outcome 1 School-assessed Coursework task and in the meeting of requirements by following the VCE assessment principles.

It has been developed as a result of the issues we have seen in the Unit 3 School-based Assessment Audit over the last four years.

As a result, Teachers can use this template as a guide to developing the assessment task by inserting the necessary content within the template.

# Unit 3 Outcome 1 SAC Template



The image shows a thumbnail of the 'Unit 3 Outcome 1 – SAC task template' document. The document header includes the VCAA logo and the text 'VICTORIAN CURRICULUM AND ASSESSMENT AUTHORITY' and 'VICTORIA State Government'. The main title is 'Unit 3 Data Analytics' and the subtitle is 'Unit 3 Outcome 1 – SAC task template'. The document is divided into sections: 'Instructions', 'Use of commercial tasks', and a copyright notice '© VCAA' at the bottom.

**Unit 3 Data Analytics**

**Unit 3 Outcome 1 – SAC task template**

**Instructions**

The purpose of this template is to assist teachers with the development of the Unit 3 Outcome 1 School-assessed Coursework task and in the meeting of requirements by following the VCE assessment principles. Teachers can use this template to insert the necessary content for the School-assessed Coursework task.

The following content is included in this template:

- Relevant VCAA resources for the development of the Unit 3 Outcome 1 SAC task.
- The Unit 3 Outcome 1 statement.
- The Unit 3 Outcome 1 Key knowledge.
- The Unit 3 Outcome 1 Key skills.
- Details related to task development including:
  - conditions
  - scenario
  - solution requirements
  - solution designs
  - assessment (marking scheme)
- Details related to developing the final marking scheme for the task and determining the score out of 100 marks.

**Use of commercial tasks**

When referring to or using a commercially produced task teachers need to ensure that the tasks they develop are to be sufficiently modified from the original commercial task.

All commercially produced tasks must be cross-checked against the:

- outcome statement
- key knowledge
- key skills.

Also, for authentication reasons, the context (the background to the case study or scenario) and the content (solution requirements and designs) of the task must be significantly changed from the original publication each year. This involves the current year's commercial task as well as previous years and also any previous year's school-developed assessment tasks.

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# Unit 3 Outcome 1 SAC Template

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# Unit 3 Outcome 1 SAC Template

## VCAA Resources

The following resources for developing the Unit 3 Outcome 1 School-assessed Coursework task can be found on the Applied Computing: Data Analytics study page:

- Applied Computing Study Design (2020–2024)
  - Applied Computing: Data Analytics: Software tools and functions for 2024
  - VCE Applied Computing: Data Analytics School-based Assessment report (2020)
  - Advice for teachers (Unit 3 Data Analytics)
    - Support material:
      - 2024 VCE Applied Computing: Data Analytics Unit 3 Outcome 1 Assessment task development template – blank
      - 2024 VCE Applied Computing: Data Analytics Unit 3 Outcome 1 Assessment task development template – plan
      - 2024 VCE Applied Computing: Data Analytics Unit 3 Outcome 1 Developing a marking scheme – sample
      - 2024 VCE Applied Computing: Data Analytics Unit 3 Outcome 1 SAC Template
  - On-demand videos:
    - Unit 3 School-based Assessment
    - Background to the Unit 3 Outcome 1 SAC
    - Planning the Unit 3 Outcome 1 SAC
    - Assessing the Unit 3 Outcome 1 SAC
    - Using the Unit 3 Outcome 1 SAC Template
    - Unit 3 School-based Assessment Audit
- The following resource can be found on the VCE General advice and policy page:
- VCE assessment principles

# Unit 3 Outcome 1 SAC Template

## Unit 3 Outcome 1

On completion of this unit the student should be able to respond to teacher-provided solution requirements and designs to extract data from large repositories, manipulate and cleanse data and apply a range of functions to develop software solutions to present findings.

### Key knowledge

#### *Data and information*

- techniques for efficient and effective data collection, including methods to collect census, Geographic Information System (GIS) data, sensor, social media and weather
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- methods for referencing primary and secondary sources, including American Psychological Association (APA) referencing system
- characteristics of data types

# Unit 3 Outcome 1 SAC Template

## Task 1

[**Insert** the name of the task here.]

[When developing the first task refer to the *Unit 3 Outcome 1 Key knowledge and Key skills, Advice for teachers – Sample approaches to developing an assessment task, Software tools and functions for 2024* and the *Unit 3 Outcome 1 Support material* on the study page for further information.]

## Conditions

[**Insert** the conditions for the task here.]

## Scenario

[**Insert** the scenario here.]



# Unit 3 Outcome 1 SAC Template

## Solution requirements

[**Insert** the solution requirements here.]

## Solution designs

[**Insert** one or two solution designs here. Designs tools to select from are: data dictionaries, tables, charts (including mock-ups of charts and IPO charts), input forms, queries and reports.]

[The scenario, solution requirements and solution designs should provide enough information for students to be able to interpret the solution requirements and designs and to develop software solutions to present findings.]

# Unit 3 Outcome 1 SAC Template

## Assessment

[**Insert** the marking scheme for Task 1 here.]

[Determine what you are going to assess and how many marks will be awarded for this task. Refer to the *Unit 3 Outcome 1 Key skills* and the *Advice for teachers – VCAA Performance descriptors* and the *2024 VCE Applied Computing: Data Analytics Unit 3 Outcome 1 Developing a marking scheme - sample* on the study page for further information. **Note:** Not all performance descriptors need to be included in all tasks.]

[Marking schemes should be clear and accessible for students to help ensure that they can achieve the full range of marks. When developing marking schemes, schools must ensure criteria within the marking scheme are appropriately weighted. Marking schemes should also provide sufficient opportunity for schools to differentiate between levels of achievement. Schools must also ensure that the appropriate number of marks are awarded to the task.]

# Unit 3 Outcome 1 SAC Template

## Task 2

[Insert the name of the task here.]

[When developing the second task refer to the *Unit 3 Outcome 1 Support* material and the *Unit 3 Outcome 1 Support* material]

## Conditions

[Insert the conditions for the task here.]

## Task 3

[Insert the name of the task here.]

[When developing the third task refer to the *Unit 3 Outcome 1 Support* material and the *Unit 3 Outcome 1 Support* material]

## Conditions

[Insert the conditions for the task here.]

## Task 4

[Insert the name of the task here.]

[When developing the fourth task refer to the *Unit 3 Outcome 1 Support* material and the *Unit 3 Outcome 1 Support* material]

## Conditions

[Insert the conditions for the task here.]

# Unit 3 Outcome 1 SAC Template

## Final marking scheme

[**Insert** your marking scheme for the School-assessed Coursework task here. **Note:** Do not insert the VCAA Performance descriptors here.]

[Determine the overall number of marks out of 100 that will be awarded for this task. Refer to the *Unit 3 Outcome 1 Key skills* and the *Advice for teachers – VCAA Performance descriptors* and the *2024 VCE Applied Computing: Data Analytics Unit 3 Outcome 1 Developing a marking scheme - sample* on the study page for further information.]

[Marking schemes should be clear and accessible for students to help ensure that they can achieve the full range of marks. When developing marking schemes, schools must ensure criteria within the marking scheme are appropriately weighted. Marking schemes should also provide sufficient opportunity for schools to differentiate between levels of achievement. Schools must also ensure that the appropriate number of marks are awarded to the task.]

# Contact

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