

VCE Applied Computing 2025–2028

Video 8

Background to Unit 4 Outcome1
Data Analytics



VICTORIAN CURRICULUM
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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.



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Video 8

Background to Unit 4 Outcome1
Data Analytics



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Purpose of this presentation

- Overview of Unit 4 Outcome 1 Data Analytics
- Major changes to Unit 4 Outcome 1
- Software tools
- Outcome statement
- Key knowledge
- Key skills
- Assessment task

Unit 4 Outcome 1



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Changes to Unit 4 Outcome 1

- Statistical analysis
- Updated assessment task (SAT)

Unit 4 Outcome 1

Software tools

Students are required to use the following software tools:

- Database software
- Spreadsheet software
- Data visualisation software
- An appropriate tool for running Structured Query Language (SQL) queries
- An appropriate tool for documenting and modifying project plans

Unit 4 Outcome 1

From the outcome statement

- Develop and evaluate infographics and/or dynamic data visualisations that meet requirements and assess the effectiveness of the project plan.

Unit 4 Outcome 1 – Key knowledge

- effective and efficient methods to manipulate data using software tools, including:
 - use of templates
 - software functions
 - use of artificial intelligence tools to represent data and information
- techniques for analysing data to refine findings for data visualisations, including:
 - descriptive statistics (average, median, minimum, maximum, range, standard deviation, count/frequency, sum)
 - Pearson's correlation co-efficient (r)
 - the shape and skew of data

Unit 4 Outcome 1 – Key knowledge

- techniques for implementing data security, including:
 - using security controls
 - developing an implementation plan
 - using a checklist to ensure controls are successfully implemented
- characteristics of information for target audiences, including:
 - age appropriateness
 - commonality of language
 - culture and gender inclusiveness

Unit 4 Outcome 1 – Key knowledge

- formats and conventions applied to infographics and dynamic data visualisations to improve their effectiveness for intended users, including:
 - use of colours, fonts, images and icons
 - visual hierarchy and clarity of message
- techniques for improving data quality by validating and verifying data, including:
 - existence checking
 - type checking
 - range checking
 - checking end-to-end data integrity from collection to visualisation
 - proofreading

Unit 4 Outcome 1 – Key knowledge

- techniques for testing that data visualisations work as intended, including:
 - visual inspection of the appearance of the data visualisation
 - confirming that charts and graphs are representative of the data being visualised
- features of evaluation strategies, including:
 - criteria
 - time frame
 - responsibility

Unit 4 Outcome 1 – Key knowledge

- techniques for applying evaluation criteria
- techniques for recording the progress of projects, including:
 - adjustments to tasks
 - adjustments to time frames
 - annotations to project plans
 - monitoring and documenting progress using logs/journals
- techniques for assessing the effectiveness of a project plan, including:
 - reviewing the number of changes made to the project plan during the project
 - the reason changes were necessary
 - the impact of changes on the completion of the project.

Unit 4 Outcome 1 – Key skills

- monitor, modify and annotate project plans as necessary
- conduct statistical analysis to identify trends, relationships and patterns
- implement procedures for securing data
- apply formats and conventions to develop infographics and/or dynamic data visualisations using software
- select and apply data validation, verification and testing techniques
- evaluate the efficiency and effectiveness of infographics and/or dynamic data visualisations
- assess the effectiveness of the project plan.

Unit 4 Outcome 1

Contribution to final assessment

School-assessed Task for Unit 3 Outcome 2 and Unit 4 Outcome 1 will contribute 30 per cent to the study score.

Unit 4 Outcome 1 – Assessment task

Infographics and/or dynamic data visualisations that present findings in response to a research question

AND

- an evaluation of the efficiency and effectiveness of infographics and/or dynamic data visualisations
- an assessment of the effectiveness of the project plan (Gantt chart) in monitoring project progress

in one of the following:

- a written report
- an annotated visual plan.

Time allocated should be at least 8 weeks of class time.

Contact

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