

VCE Applied Computing 2025–2028

Video 7

Background to Unit 3 Outcome 2
Data Analytics



VICTORIAN CURRICULUM
AND ASSESSMENT AUTHORITY



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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Background to Unit 3 Outcome 2
Data Analytics



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Purpose of this presentation

- Overview of Unit 3 Outcome 2 Data Analytics
- Major changes to Unit 3 Outcome 2
- Software tools
- Outcome statement
- Key knowledge
- Key skills
- Assessment task

Unit 3 Outcome 2

Changes to Unit 3 Outcome 2

- Ideation techniques
- Updated assessment task (SAT)

Unit 3 Outcome 2

Software tools

Students are required to use the following software tools:

- an appropriate tool for documenting and modifying project plans
- appropriate tools for ideation and generating designs

Unit 3 Outcome 2

From the outcome statement

- Propose a research question, formulate a project plan, collect and prepare data, and generate design ideas and a preferred design for creating infographics and/or dynamic data visualisations.

Unit 3 Outcome 2 – Key knowledge

- features of a research question, including:
 - clarity
 - measurability of data requirements
 - feasibility
 - originality

Unit 3 Outcome 2 – Key knowledge

- features of project management to develop a project plan using Gantt charts, including:
 - identification of tasks
 - sequencing of tasks
 - time allocation
 - dependencies
 - milestones
 - critical path
 - monitoring and documenting the progress of projects
- characteristics of functional and non-functional requirements, constraints and scope, including data to address the research question

Unit 3 Outcome 2 – Key knowledge

- methods for collecting primary data, including:
 - surveys
 - interviews
 - observations
- methods for collecting secondary data, including:
 - querying of data stored in large repositories
 - online searches
- characteristics of data types and data structures relevant to manipulating collected data

Unit 3 Outcome 2 – Key knowledge

- suitability of quantitative and qualitative data for manipulation to prepare for data visualisations, including:
 - coding of qualitative data
 - identifying trends, relationships and patterns
- characteristics of data integrity, including:
 - accuracy
 - authenticity
 - correctness
 - reasonableness
 - relevance
 - timeliness

Unit 3 Outcome 2 – Key knowledge

- procedures and techniques for the ethical collection of primary data, including:
 - using participant information statements and/or consent forms
 - de-identifying personal data
- key legal requirements for the protection of intellectual property and the collection, communication and security of data and information, including:
 - *Copyright Act 1968* (Cwlth)
 - *Health Records Act 2001* (HPP 1, 2, 4)
 - *Privacy Act 1988* (Cwlth) (APP 3, 4, 5, 6, 11)
 - *Privacy and Data Protection Act 2014* (IPP 1, 2, 4, 10)

Unit 3 Outcome 2 – Key knowledge

- methods for referencing secondary sources using the APA referencing system to acknowledge intellectual property, including:
 - use of citations
 - creation of reference lists
- procedures and techniques for managing data, including:
 - archiving
 - backups (full, incremental, differential)
 - disposal

Unit 3 Outcome 2 – Key knowledge

- ideation techniques and tools for generating design ideas, including:
 - mood boards
 - brainstorming
 - mind maps
 - sketches
 - annotations

Unit 3 Outcome 2 – Key knowledge

- design principles that influence the appearance and functionality of infographics and dynamic data visualisations, including:
 - alignment
 - balance
 - contrast
 - image use
 - space
 - text and table formatting
 - usability
 - navigation
 - interactivity

Unit 3 Outcome 2 – Key knowledge

- criteria for evaluating design ideas and the efficiency and effectiveness of infographics and dynamic data visualisations
- design tools for generating solution designs from design ideas, including:
 - storyboards
 - mock-ups
 - input-process-output (IPO) charts
 - query designs.

Unit 3 Outcome 2 – Key skills

- propose a research question
- create, monitor and modify project plans using software
- analyse and document solution requirements, constraints and scope of infographics and/or dynamic data visualisations
- apply techniques for searching, collecting, referencing and managing data sets
- generate design ideas using appropriate ideation techniques and tools
- develop evaluation criteria for design ideas and the efficiency and effectiveness of infographics and dynamic data visualisations
- produce detailed designs using appropriate design principles and tools.

Unit 3 Outcome 2

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 3 Outcome 2 – Assessment task

A documented research question and a project plan (Gantt chart) indicating tasks, times, milestones, dependencies and the critical path

AND

An analysis that defines the requirements, constraints and scope of infographics and/or dynamic data visualisations

AND

A collection of complex data sets that has been referenced

AND

A folio of design ideas and evaluation criteria

AND

Detailed design specifications of the preferred design.

Time allocated should be at least 8–10 weeks of class time.

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