**Stage 1 Digital Technologies**

**Assessment Type 1: Project Skills**

**Data Analytics: Success of *Dob in a Litterer* App**

**Purpose**

*Dob in a Litterer* is an app launched in February 2017 by the Environment Protection Authority (EPA) of South Australia that gives power to the people in helping to reduce rubbish in South Australia.

“Research has shown that cigarette butts remain the main contributor to litter in South Australia, with other items including takeaway food containers, plastic bottles and paper.”[[1]](#footnote-1)

Analyse the app’s success in getting members of the public to ‘dob in’ litterers in South Australia.

**Assessment Description**

* Working collaboratively in groups of 2 or 3, undertake background research of the *Dob in a Litterer* app by viewing websites such as:
  + *Dob in a Litterer* (ensure you read the FAQs)

<http://www.dobinalitterer.sa.gov.au/home>

* + *Butt Free Australia*

<http://www.notagoodlook.com.au/how-you-can-help/dob-in-a-litterer/>

* + Local Nuisance and Litter Control Act 2016

<https://www.legislation.sa.gov.au/LZ/C/A/LOCAL%20NUISANCE%20AND%20LITTER%20CONTROL%20ACT%202016.aspx>

* + And any other relevant sources.
* Download the app and investigate how it works:
  + <https://play.google.com/store/apps/details?id=com.epa.dial>
  + <https://itunes.apple.com/au/app/dob-in-a-litterer/id1189491478?mt=8>
* Consider the ethical implications that arise from using the app, and the effect these may have on people who use the app.
* Go to <https://data.sa.gov.au/data/dataset/dob-in-a-litterer-summarised-data> for a summarised report of how many, and the type of, submissions *Dob in a Litterer* app received since its launch. Clicking the data link will display details on the data collected.
* Download the summarised data file (a .csv file). Using Microsoft Excel (or similar product that can read and analyse .csv files), investigate and evaluate how successful the public response has been to the app based on the data collected. You should include suitable graphs and/or tables which compare data over time, or across different summary statistics.
* Make recommendations that could be implemented to improve the app’s success.

**Assessment Conditions**

* As a group, summarise your findings and recommendations in a suitable format.
* Keep an electronic record of evidence (notes, reflections, draft design annotations etc.) of your contributions, and others’, to the collaborative project.
* Your findings should include:
  + background information about the *Dob in a Litterer* app and its purpose
  + ethical considerations that arise from the use of the app
  + how successful public response has been, supported by evidence e.g. graphs, tables, images etc.
  + recommendations to improve the app’s success

**Assessment Design Criteria**

CT3 Analysis of patterns and relationships in data sets and/or algorithms to draw conclusions

DE2 Evaluation of the effectiveness of a digital solution or prototype

DE3 Contribution to collaborative work

RE1 Research into and discussion of ethical considerations in digital solutions and/or data use

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|  | Computational Thinking | Development and Evaluation | Research and Ethics |
| A | Insightful and sustained application of computational thinking skills to explore problems and possible solutions.  Focused development and strategic application of a wide range of programming skills to create a digital solution or prototype.  In-depth analysis of patterns and relationships in data sets and/or algorithms to draw insightful conclusions. | Purposeful and well-considered development and application of program-design skills to create digital solutions or a prototype that include innovative features.  Insightful evaluation of the effectiveness of a digital solution or prototype.  Insightful and proactive contribution to collaborative work. | In-depth research into and discussion of the ethical considerations in digital solutions and/or data use. |
| B | Some insights in the application of computational thinking skills to explore problems and possible solutions.  Thorough development and well-considered application of a range of programming skills to create a digital solution or prototype.  Some depth in analysis of patterns and relationships in data sets and/or algorithms to draw well-informed conclusions. | Well-considered development and application of program-design skills to create digital solutions or a prototype that include one or more innovative features.  Well-considered evaluation of the effectiveness of a digital solution or prototype.  Mostly consistent and effective contribution to collaborative work. | Some depth in research into and discussion of the ethical considerations in digital solutions and/or data use. |
| C | Application of computational thinking skills to explore problems and possible solutions.  Competent development and application of programming skills to create a digital solution or prototype.  Description, with some analysis of patterns and relationships in data sets and/or algorithms, to draw generally informed conclusions. | Development and application of program-design skills to create digital solutions or a prototype that may include one or more innovative features.  Description, with some evaluation of the effectiveness, of a digital solution or prototype.  Effective contribution to collaborative work. | Considered research into and discussion of the ethical considerations in digital solutions and/or data use. |
| D | Some application of basic computational thinking skills to describe problems and possible solutions.  Basic development and some application of programming skills to create one or more partial solutions or prototypes.  Basic description of patterns and relationships in data sets and/or algorithms to draw one or more basic conclusions. | Some development and application of program-design skills to create one or more partial solutions or prototypes.  Basic description of a digital solution or prototype and one or more aspects of its effectiveness.  Some contribution to collaborative work. | Basic research into and discussion of the ethical considerations in digital solutions and/or data use. |
| E | Attempted application of a limited number of simple computational thinking skills to describe a problem and/or possible solution.  Attempted development and/or application of basic programming skills.  Attempted description of one or more patterns and relationships in data sets and/or algorithms. | Attempted development and application of program-design skills.  Attempted description of a digital solution or prototype.  Limited contribution to collaborative work. | Attempted discussion of an ethical consideration in digital solutions and/or data use. |

1. Dob in a Litterer - Summarised Data (n.d.). Retrieved June 19, 2017, from <https://data.sa.gov.au/data/dataset/dob-in-a-litterer-summarised-data> [↑](#footnote-ref-1)