Analyse and explain the dependencies between two information systems and evaluate the controls in place in one information system to protect the integrity of its source data.

**Task**

*Written report*

This task will be marked out of 100.

It will contribute 100% of the marks allocated for this outcome.

The task has been designed to allow achievement up to and including the highest level in the Performance Descriptors.

It should only take 90 minutes to develop your report.

The report is likely to be between 500–700 words.

You may not refer to any notes or reference materials during this time.

Your teacher will advise you of any variation to these conditions.

This task covers a range of key knowledge and key skills from this outcome.

**Clocks**

*Background*

Little Ground Secondary College is implementing a new student management system at their school called Clocks. Clocks is a server based program accessible via a website to help manage schools, the software and server for Clocks is located in a data centre run and managed by Clocks. The new system will have the following features

* Teachers can mark rolls on their laptops.
* Student and teachers timetable will be accessible via the website and will show up to date changes.
* Teacher can assign students work and grade their work on the new system.
* Clocks will also keep track of students contact details as well as emergency contacts.

The school campus has three large separate buildings all connected via a weird network. Inside the buildings all staff and students gain access to the network via the schools Wi-Fi network.

The education department runs its own information system called Briefs that contains basic information on students, the data that the school has access to for their students is student name, gender, date of birth and parent contact details. Little Ground Secondary College will be transferring the data they have access to over to the new Clocks systems but there will be considerations they have to take into account for this to be possible as Briefs is owned and operated by the Victorian Government.

**Task**

Before the principal at Little Ground Secondary College gives approval for the new Clocks system to be implemented they would like a report on the new system.

Your report should follow appropriate report conventions and address the following points:

* Describe the network environment that the Clocks program will operate in.
* Identify one goal and objective that Little Ground Secondary College will have for the new information system.
* Identify any relevant data that the school or other stakeholders will need to provide for Clocks to work.
* What interactions (inputs and outputs) are generated by the Clocks program
* What are some problems\conflicts that could occur if Little Ground Secondary College do not manage their data properly?
* Describe the advantages and disadvantages of Clocks for various stakeholders
* What legal requirements does Clocks and Little Ground Secondary College need to follow and how will they follow these requirements
* How will Little Ground Secondary College manage data integrity and what is the impact if data integrity is not maintained
* How will Little Ground Secondary College make sure that data is safe and secure from all types of threats?

**Write your answers in the space provided on the next few pages.**

You have access to the assessment rubric, which is at the end of the SAC materials so you can make sure you have written your report properly.

**Report:**

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| **SOFTWARE DEVELOPMENT UNIT 4 OUTCOME 2**  **SCHOOL-ASSESSED COURSEWORK** |

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| Performance Descriptors |

|  | Very Low | Low | Medium | High | Very High |
| --- | --- | --- | --- | --- | --- |
| **Unit 4 Outcome 2**  **Analyse and explain the dependencies between two information systems and evaluate the controls in place in one information system to protect the integrity of its source data** | Very limited technical descriptions of the networked environment and interactions generated by information systems | Some technical descriptions of the networked environment and the interactions generated by information systems | Some technically correct terminology is used to describe the networked environment and the interactions generated by information systems | Mainly technically correct terminology is used to describe the networked environment and the interactions generated by information systems. | Technically correct terminology is used to describe the networked environment and describe the interactions generated by information systems. |
| Very limited techniques to identify causes of conflict and little description of the organisation’s data management practices. | Some appropriate techniques to identify causes of conflict and some description of the organisation’s data management practices. | Appropriate techniques to identify causes of conflict and some evaluation of the organisation’s data management practices | Most techniques to identify causes of conflict and clear evaluation of the organisation’s data management practices | All techniques to identify causes of conflict and thorough evaluation of the organisation’s data management practices |
| Limited understanding and application of relevant legislation demonstrated in data management practices | Some understanding and application of relevant legislation demonstrated in data management practices | Adequate understanding and application of relevant legislation demonstrated in data management practices | Clear understanding and application of relevant legislation demonstrated in data management practices | .  Insightful understanding and application of relevant legislation demonstrated in data management practices |
| Limited description of data integrity characteristics and a very basic description of the impact of diminished data integrity | Some description of data integrity characteristics and some description of the impact of diminished data integrity | Appropriate description of data integrity characteristics and a satisfactory description of the impact of diminished data integrity | Detailed description of data integrity characteristics and a well-developed description of the impact of diminished data integrity | Comprehensive description of data integrity characteristics and a very detailed description of the impact of diminished data integrity |
| Very little description of ways organisations secure data and information and limited identification of the extent to which information system objectives are met | Some explanation of ways organisations secure data and information and a basic evaluation of the extent to which information system objectives are met | Satisfactory explanation of ways organisations secure data and information and adequate evaluation of the extent to which information system objectives are met | Clear explanation of ways organisations secure data and information and detailed evaluation of the extent to which information system objectives are met | Thorough explanation of ways organisations secure data and information and critical evaluation of the extent to which information system objectives are met |

KEY to marking scale based on the Outcome contributing 100 marks

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| Very Low 1-20 | low 21-40 | Medium 41-60 | High 61-80 | Very high 81-100 |