

INFORMATION SYSTEMS and DIGITAL TECHNOLOGIES Level 3

Common Assessment Task

Work Requirements:

Systems Development Life Cycle (part)

Assessment Type:

Short response - report

Criteria being assessed:

- Criterion 1- all elements

Suggested conditions:

- This task should take learners 2.5 hours total.
- Word limit 1000 words (maximum).
- This task requires an individual response by each learner.

Task Description:

You will develop a report (1000 words maximum) for a given case study based on Systems Development Lifecycle (SDLC). You will answer questions related to the case study with a focus on Analysis and Design.

Case Study: A System Development Life Cycle (SDLC)

Sharona Secondary School is a senior secondary college for around 900 Year 11 and 12 learners. With the rapid onset of the COVID-19 Corona Virus, the Principal wishes to provide learners effective online courses for the learners at her school. She intends to make the change to a Remote Learning and Teaching environment for the duration of the crisis. After the crisis is over, the intention is to use the skills learnt during this time to change to a mixed Face-to-Face and Remote Learning environment, where learners can visit, choose, enrol and participate in a range of classes electronically.

Due the fast onset of the changes required, *Sharona Secondary School* has asked you to work as a consultant. You must ensure that the initial changeover to remote learning is done quickly, and in as efficient a manner as possible for a smooth transition.

You have decided to use the System Development Life Cycle as the basis for the report that will be given to *Sharona Secondary School* with your recommendations.

What you need to do:

1. Conduct research to understand:

- Would some subjects be more difficult to teach than others in a Remote Learning environment? Which and why?
- Which stakeholders would you need to discuss options with and how would you involve them in the decision?
- The school will need to take attendance, allow upload of coursework, be able to assess learners, do reports and allow constant communication between learners and teachers.
- What hardware, software and procedures would be needed at school by teachers to run a virtual school?
- What hardware and software would be needed at home by learners to allow them to attend the virtual school?
- What might go wrong in terms of assessment and delivery of courses?

2. Create a report based on the SDLC.

- You must refer to the case study in your response
- You need to address the Analysis and Design sections only.
- You must complete this in a separate document and clearly identify each section.

3. **Analysis: complete the analysis section by answering the questions below**

- a) Define the problem and determine if a new system is needed.
- b) Outline problems with the current system.
- c) Determine what the new system should be able to do. What Information is needed by whom, when, where and why?
- d) Suggest at least three alternatives.

4. **Design: complete the design section by answering the questions below**

- a) What system and software design is needed? May include considering hardware and system requirements and overall system architecture.
- b) Evaluation criteria are also developed that is, how will I know if I've succeeded?
- c) Evaluate alternatives based on:
 - economic (cost)
 - technical (can they get help when needed if things go wrong)
 - operational feasibility (will it work effectively in the business).
- d) Describe to stakeholders how alternative solutions will look and ensure that scope (the whole information about what is required) is correctly being met.
- e) Detail two to three alternative solutions and provide a recommendation based upon:
 - cost
 - flexibility
 - scalability
 - system fit – does it fit with the organisation

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Teacher use only - What needs to be submitted for assessment?

Learners respond to the questions in a separate document