Assessment Details

**Unit Code and Title:** **SBM4104 IT Infrastructure**

# Assessment : Case Study

|  |  |
| --- | --- |
| *Due date:* | 4th April 2020 |
| *Group/individual:* | Individual |
| *Word count / Time provided:* | 2000 words |
| *Weighting:* | 20% |
| *Unit Learning Outcomes:* | ULO-1, ULO-2, ULO-3 |

**Assessment Details:**

This assessment is designed to assess your skills in analysing the IT infrastructure hardware, software and networking requirements for ABC organisation. The organisation must provide IS services to the staff and customers such as email, webpage, and database. The ABC organisation details as followings:

* Three floors in one building each floor includes 25 computers.
* Main office is located at the ground floor with two computers and a shared printer for the staff working at main office only.
* Six printers (two each floor) that can be access by all staff.
* ABC website that provides customers with a general information and clients can buy services, and products.
* All staff have the ABC email account.
* Application software that allows the staff to conduct online meetings and training workshops. - Share files between the staff.

You have to write a report and answer the followings questions related to ABC organisation:

1. Introduction to introduce the services the organisation provided and report outlines.
2. Identify and discuss the network devices required to achieve the organization requirements including the day by day activities. Explain the function of each device and identify in which layer of OSI model it works.
3. Identify and specify the clients and server’s communication software and application software required to achieve the ABC requirements. Justify your answer.
4. Use the seven layers OSI model to explain with the support of diagram how data are moved between the layers when an employee at ground floor sent an email to another employee at level-3 floor. Your diagram must show all the network devices involved in data communication and types of protocols required.
5. Summary of the report
6. References in Harvard style.

Please note, you may need to make some assumptions with the required justifications.

For successful completion of this assessment, you require to study the material provided (lecture slides, tutorials, and reading materials), engage in the unit’s activities, and in the discussion forums. The prescribed textbook is the main reference along with the recommended reading material. You expected to discuss their work with lecturer and to seek support. In completing this assessment successfully, you will achieve ULO1, ULO2 and ULO3, this in turn will help you in achieving CLO-1, CLO5, CLO-6, and CLO-8, which collectively with other unit learning outcomes will help in achieving GA1, GA2, GA3, GA4 and GA9.

## Marking Criteria and Rubric: The assessment will be marked out of 100 and will be weighted 20% of the total unit mark

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Marking**  **Criteria** | **Not satisfactory**  **(0-49%) of the**  **criterion mark)** | **Satisfactory**  **(50-64%) of the criterion mark** | **Good**  **(65-74%) of the criterion mark** | **Very Good**  **(75-84%) of the criterion mark** | **Excellent**  **(85-100%) of the criterion mark** |
| **Introduction (10 marks)** | Poor Introduction with irrelevant details about the organisation and its services | Introduction is presented briefly with some relevance and missing elements related to the organisation and its services | Introduction is generally presented in good fashion, however missing one element such as the service provided by the organisation. | Introduction is well written with clear discussion about the organisation and its services | Introduction is very well written with very clear background, discussion about the organisation and its services |
| **Network devices identification and functions and OSI layer**  **(25 mark)** | Lack of evidence of adequate understanding  of organisation requirements and identification of network devices, functions and OSI layer. | identification of basic hardware devices with general discussion not specified to the organisation | Generally good identification of network devices with limited description about functions and OSI layers. | Very clear identification of network devices related to the organisation with clear function of each type and OSI layer | Excellent cover and identification of network devices with in-depth descriptions of the functions and OSI layers. |
| **Type of software with justification**  **(25 mark)** | Lack of evidence of understanding of  software and types | Evidence of basic understanding of software with general discussion not related to the selected organisation with limited justification. | Evidence of good identification of software types with limited justification | Very clear identification of software types with justification related to the organisation and services. | Has excellent identification of types of software with clear justifications linked to the services provided by the organisation. |
| **Use of OSI model to explain**  **accessing**  **organisation email**  **(20 mark)** | Lack of evidence of understanding of OSI model without discussion of data  movement between layers and diagram and types of protocols. | Evidence of basic understanding of OSI model with general discussion of data  movement between layers not related to the email and with a diagram and types of protocols. | Evidence of good understanding of OSI data movement between layers related to the email access with the good related diagram and types of protocols. | Very good understanding and demonstration of OSI data movement between layers related to the organisation email access with clear diagram and types of protocols. | Excellent understanding and demonstration of OSI data movement between layers related to the organisation email access with clear diagram and types of protocols. |
| **Summary**  **(10 marks)** | Summary not  relating to the  report | Brief summary of the report with some relevance | Generally good summary of the report | A section clearly summarizing the  overall contribution | A section very clearly summarizing the  overall contribution |
| **References (10 marks)** | Lacks consistency with many errors. | Unclear referencing/style | Generally good referencing/style | Clear referencing/ style | Clear styles with excellent source of references. |