## Assessment Details

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| Unit Title | Network and Systems Administration |
| Unit Code | B9IS121 |
| Unit Leader | Obinna Izima |
| Level: | 9 |
| Assessment Title | Design and implementation of a proof of concept system using virtualisation technology, accompanied by a fully documented technical report and demonstration. |
| Assessment Number | 1 |
| Assessment Type: | Skills Based Assessment |
| Individual/Group | Individual |
| Assessment Weighting | 60% |
| Issue Date | 17/10/19 |
| Hand in Date | 11/11/19 |
| Mode of Submission: | Technical Report to be submitted via Moodle<br>Demonstrations in class |

**This assignment is an individual assignment.**

**Assessment Details (100 Marks, 60% Weighting):**

**Part A (30%)**
Design and deploy a network, physical or virtual, capable of hosting the resources mentioned part B, including DHCP, naming services etc.

**Part B (70%)**

The aim of the project component is to test the student's ability to *research*, *design*, *implement* and *report* on relevant technologies related to system administration that they have developed. The project **must** involve technical development of an artefact or proof of concept system; therefore pure research projects are not appropriate.

Subject areas for this project cover a wide variety of areas, some covered in class, others requiring independent research. Applicable system administration technologies are:

- Network File System (NFS)
- Server Message Block (SMB)
- Domain Name System (DNS)
- Kerberos Authentication
- Network Information Service (NIS)
- Lightweight Directory Access Protocol (LDAP)

- Pluggable Authentication Module (PAM)
- Secure File Transfer Protocol (SFTP)
- WebNFS
- OpenSSH & OpenVPN
- Container managers
- Web services.
- Cloud technologies
- Private clouds
- Peer-to-peer systems.
- Build Automation

For your implementation you can use any technology / software / hardware to deliver projects (provided licensing laws are not broken), such as Virtual Box, AWS, Azure, OpenStack clouds, OpenShift, Kubernetes, Docker containers etc. You must use source control management, such as GitHub, to manage your code and/or configuration files, and must commit your progress daily.

Your final report should be a technical document detailing your artefact and containing a reflective section describing your learning experience.

**Assessment Criteria**

Projects are assessed under a number of categories which are detailed below:

**Project: 70 Marks**

- Project Report (25/70) - the quality of the project report. A technical document is required with a max word count of 3000 words. The format you choose must be of high industry level, professional standard. This should include a reflective paragraph describing your learning experience.
- Research, Analysis and Design (15/70) - the extent of the background research and overall understanding of the project subject area; the quality of the analysis of the project; and the quality of the overall and detailed design of the system to be implemented.
- Completeness and Correctness (10/70) - how complete your final artefact / deliverable / proof of concept system is and that they are valid.
- Achievement (10/70) - the value and the usability of the project, including the project report and any software designed / implemented.
- Project Management (10/70) - the overall ability of the group/individual to carry out a project successfully.

**Presentation: 30 Marks**

Presentation (30/30) - the quality of the presentation of the project. Presentation will be a maximum of 10 minutes with 10 minutes for questions. Your presentation must include a DEMO of your artefact which clearly show your chosen technologies setup and working correctly. (For example if you chose to implement SMB then your demonstration must clearly show the smb.conf configuration file and any other files as well as file sharing successfully working between Windows and Linux). Presentations will take place in class and you will be advised of the date. A schedule will be circulated closer to the submission date with details of your presentation time.

**Submission Details:**

Upload your documentation to Moodle via the submission link provided before 11.55pm on XXX.

Assessment criteria - Report

| Criteria/ Mark | < 40 | 40 - 49 | 50 - 59 | 60 – 69 | 70 + |
|---|---|---|---|---|---|
| **Project Report (25/70) - the quality of the project report. Legible and well presented with logical structure. Good grammar, sentences structure and spelling.** | Difficult to read and not typed | Messy, needs tidying | Some errors and mistakes | Few errors and mistakes | Presented excellently with no errors |
| **Research, Analysis and Design (15/70) - the extent of the background research and overall understanding of the project subject area. Original/creative work** | Copied from books/lecture notes/web sites | Little creativity, lacks originality & evidence of research | Some creativity & originality & evidence of research | Good creativity, originality & evidence of research | Excellent originality, creativity & evidence of research |
| **Completeness and Correctness (10/70) - how complete your final artefact / deliverable / proof of concept system is and that they are valid.** | No completeness or system is unusable. | Little knowledge or understanding somewhat relevant system | Somewhat a useful system | Good system applications and good knowledge and understanding | Excellent system applications, excellent knowledge and under standing |
| **Achievement (10/70) - the value and the usability of the project, including the project report and any software designed / implemented.** | No knowledge or under standing | Little knowledge or understanding | Some knowledge and under standing | Good knowledge and under standing | Excellent knowledge and under standing |
| **Project Management (10/70) - the overall ability of the group/individual to carry out a project successfully; Sourced Information and referencing.** | PM skills missing; Insufficient<br>None in main body of text = 0 | Few identifiable PM skills; Some references but insufficient and poorly sourced | Some illustrations of PM but lack appropriateness; Sufficient referencing but limited in range | Good PM illustrations which aid understanding; Good range of references used and well referenced | Excellent PM illustrations which aid understanding; Excellent breadth and depth used |

## Assessment criteria - Presentation

| Criteria/ Mark | < 40 | 40 - 49 | 50 - 59 | 60 – 69 | 70 + |
|---|---|---|---|---|---|
| **Legible and well presented with logical structure.** **10** | Difficult to read and not typed | Messy, needs tidying | Some errors and mistakes | Few errors and mistakes | Presented excellently with no errors |
| **Original/ creative work** **10** | Copied from books/lecture notes/web sites | Little creativity, lacks originality & evidence of research | Some creativity & originality & evidence of research | Good creativity, originality & evidence of research | Excellent originality, creativity & evidence of research |
| **Ability to communicate knowledge and understanding with regard to technology utilized in the built system** **10** | No knowledge or under standing | Little knowledge or understanding | Some knowledge and under standing | Good knowledge and under standing | Excellent knowledge and under standing |

***General Assessment Submission Requirements for Students:***

1. Online assignments must be submitted no later than the stated deadline.

2. All relevant provisions of the Assessment Regulations must be complied with.

3. Extensions to assignment submission deadlines will be not be granted, other than in exceptional circumstances. To apply for an extension please go to http://www.dbs-students.com/Registrar/ and download the Assignment Extension Request Form.

4. Students are required to retain a copy of each assignment submitted, and the submission receipt.

5. Assignments that exceed the word count will be penalised.

6. Students are required to refer to the assessment regulations in their Student Guides and on the Student Website.

7. Dublin Business School penalises students who engage in academic impropriety (i.e. plagiarism, collusion and/or copying). Please refer to the attached referencing guidelines for information on correct referencing.

***What is referencing and why is it necessary?***

Please follow this link to the Harvard Style Referencing Guide - all referencing is required in this format.
http://issuu.com/dbslibrary/docs/harvard-referencing-guide/1?mode=a_p
The School of Arts generally use APA Referencing , information is available under DBS library guides on www.library.dbs.ie.