

## Managing Modern Desktops

| Managing Modern Desktops (MAMD) |   |
|---------------------------------|---|
| Assignment Number               | 1   |
| Assignment Name                 | Formative Assessment  |
| NQF Level                       |   |
| Credits                         | N/A   |
| Due Date                        |   |
| Marks                           | Total marks = 150<br>Formative assessments through the semester contribute towards the student's module mark and are used to assess progress and identify areas for improvement. This formative assessment will contribute 25% towards final mark.<br>Take note of the following with regards to late submissions:<br>a. One (1) day late (-5%)<br>b. Two (2) days late (-10%)<br>c. Three (3) days late (-15%) |
| Individual / Group Assignment   | Individual  |
| Lecturer Information            |   |
| Lecturer                        |   |
| Lecturer E-mail                 |   |

### Learning Objective:

Formative assessment 1 will cover the following concepts:

- Concepts covered in the Linux+ prescribed text book on Perlego.

### Attributes/Competencies Assessed:

The learner should demonstrate the following knowledge in this assessment:

- Unit standard(s)
- N/A

### Technical Aspects:

The number of pages for this formative assessment is **16** and the following font and size should be used in your report:

- Font: Arial
- Size: 12 and 14 for headings
- Font colour: Black

Save and upload the report as a .PDF (**No backgrounds**) with the following naming convention:

- Student no\_StudentName\_StudentSurname\_ModuleCode\_FA1 (**No ZIP folder uploads**)

Ensure adequate referencing is used when using information from either books or internet. Plagiarism is a serious offence and can result in 0% for the assessment when excessive work is copied without proper referencing.

Please complete the following and sign as requested for Portfolio of Evidence (POE)

- a. Pre-Assessment agreement (Save, sign and submit as PDF)
- b. Assessment Feedback Agreement (Save, sign and submit as PDF)

### Mark allocation for report

See Mark allocation sheet below

## Question 1

(55)

- a) In your own words, describe what your understanding of what a Linux Server is.

(15)

ANSWER:

A Linux server is a powerful computer system running the Linux operating system, specifically designed to manage network resources and host various services for multiple users and applications. It is renowned for its stability, security, and flexibility.

For example, web hosting companies like Amazon Web Services (AWS) and Bluehost use Linux servers to host websites. These servers handle incoming web traffic, manage requests, and deliver web pages to users' browsers efficiently. The popular web server software, Apache or Nginx, often runs on Linux servers, providing robust and reliable web hosting solutions.

Another example is database management. Companies like Facebook and Google use Linux servers to store and manage vast amounts of data. These servers run database software like MySQL, PostgreSQL, or MongoDB, enabling efficient data retrieval and storage. The stability and performance of Linux servers ensure that these databases can handle high transaction volumes and large datasets without issues.

Additionally, email services such as Gmail utilize Linux servers to manage and deliver emails to millions of users. The servers handle the sending, receiving, and storing of emails, ensuring secure and efficient communication. Mail transfer agents like Postfix and Exim, running on Linux servers, are crucial components in the email delivery process.

Moreover, cloud service providers like Microsoft Azure and Google Cloud Platform use Linux servers to offer virtual machines, storage solutions, and other cloud-based services. The scalability and flexibility of Linux servers make them ideal for these dynamic and resource-intensive environments.

Linux servers are preferred in these scenarios because they offer exceptional performance and reliability. Unlike desktop operating systems, Linux servers are often optimized for resource efficiency by running without a graphical user interface (GUI). This headless operation allows more system resources to be dedicated to running services and applications, which is critical in high-demand environments where uptime and performance are paramount.

By choosing Linux servers, organizations benefit from a secure, versatile, and high-performing platform that can be tailored to meet a wide range of needs, from hosting websites and managing databases to delivering emails and providing cloud services.

- b) Complete the following table with regards to Common Internet well-known port numbers.

(13)

| Port number | Protocol | Description   |
|-------------|----------|---|
| 20 and 21   | FTP      | File Transfer Protocol, used for transferring files |

|             |        |  |
|-------------|--------|--|
|             |        |  |
| 22          | SSH    | ANSWER:<br>Secure Shell, ✓ used for secure remote login and other secure network services  |
| 23          | Telnet | ANSWER:<br>Telnet protocol, used for unencrypted text communications ✓   |
| 25          | SMTP   | ANSWER:<br>Simple Mail Transfer Protocol, used for sending emails ✓  |
| 53          | DNS    | ANSWER:<br>Domain Name System, used for translating domain names to ✓ IP addresses   |
| 67          | DHCP   | ANSWER:<br>Dynamic Host Configuration Protocol, used for network configuration of devices ✓  |
| 80          | HTTP   | <b>ANSWER:</b><br>HyperText Transfer Protocol, used for web traffic ✓  |
| 109 and 110 | POP    | <b>ANSWER:</b><br>Post Office Protocol, used for retrieving emails from a server (POP2 uses port 109, POP3 uses port 110) ✓              |
| 137-139     | SMB    | <b>ANSWER:</b><br>Server Message Block, used for file sharing and printer sharing on ✓ local networks                                    |
| 143,220     | IMAP   | <b>ANSWER:</b><br>Internet Message ✓ Access Protocol, used for retrieving emails (IMAP uses port 143, IMAP3 uses port 220)               |
| 389         | LDAP   | <b>ANSWER:</b><br>Lightweight ✓ Directory Access Protocol, used for accessing and maintaining distributed directory information services |
| 443         | HTTPS  | <b>ANSWER:</b><br>HyperText Transfer Protocol Secure, used for secure web traffic ✓  |

|      |     |   |
|------|-----|---|
| 2049 | NFS | <b>ANSWER:</b> Network File System, used for distributed file system access |
|------|-----|---|

c) Briefly discuss the following database servers:

(7)

- i. PostgreSQL server

**ANSWER:**

PostgreSQL is an advanced, open-source relational database management system (RDBMS) known for its robustness, extensibility, and standards compliance. It supports a wide range of data types and complex queries, including JSON and XML, making it suitable for various applications. PostgreSQL is favored for its ACID compliance, ensuring reliable transactions, and its ability to handle large volumes of data and concurrent users. Features like full-text search, indexing, and support for custom functions and triggers contribute to its popularity in enterprise environments.

- ii. MySQL server

**ANSWER:**

MySQL is a widely-used open-source relational database management system, known for its speed, reliability, and ease of use. It is commonly used in web applications, often as part of the LAMP (Linux, Apache, MySQL, PHP) stack. MySQL supports various storage engines, including InnoDB and MyISAM, offering flexibility in how data is stored and accessed. Its features include replication, clustering, and support for large databases, making it a popular choice for applications ranging from small websites to large-scale enterprise systems.

- iii. MongoDB server

**ANSWER:**

MongoDB is a popular open-source NoSQL database known for its scalability, flexibility, and performance. Unlike traditional relational databases, MongoDB stores data in flexible, JSON-like documents, allowing for a more dynamic and schema-less data model. This makes it particularly well-suited for applications that require fast, iterative development and handle large volumes of unstructured or semi-structured data. Features like horizontal scaling, replication, and a rich query language make MongoDB a preferred choice for modern web applications, big data solutions, and real-time analytics.

d) Discuss the two (2) common MDA programs used in Linux.

(8)

**ANSWER:**

**Dovecot**

**ANSWER:** Dovecot is a popular open-source mail delivery agent (MDA) used in Linux. It supports IMAP and POP3 protocols and is known for its security, high performance, and ease of configuration. Dovecot provides efficient mailbox access and is designed to handle a large number of concurrent connections, making it suitable for both small and large-scale email systems. It includes features like mail filtering, indexing for fast searches, and support for various mailbox formats, including Maildir and mbox.

## 2. Procmal

**ANSWER:** Procmal is another widely used MDA in Linux environments. It is primarily used for filtering and sorting email, as well as for implementing mail forwarding and autoresponders. Procmal operates by processing incoming mail through a series of user-defined rules specified in configuration files, which can direct email to different folders, forward it to other addresses, or even trigger external programs. Its flexibility and powerful scripting capabilities make it a versatile tool for managing email workflows.

- e) Complete the following table with regards to *ls* command's commonly used. (12)

| Short | Long        | Description                                     |
|-------|-------------|---|
| -a    | --all       | Do not ignore entries starting with .           |
| -d    | --directory | List directories themselves, not their contents |
| -F    | --classify  | Append indicator (one of */=>@)                 |
| -i    | --inode     | Print the index number of each file             |
| -l    | --long      | Use a long listing format                       |
| -R    | --recursive | List subdirectories recursively                 |

## Question 2 (50)

- a) Complete the following table with regards to *cat* commands commonly used. (14)

| Short | Long               | Description   |
|-------|--------------------|---|
| -A    | --show-all         | Display non-printing characters, end of lines, and tabs                           |
| -E    | --show-ends        | Display a \$ when a newline linefeed is encountered                               |
| -n    | --number           | Number all output lines   |
| -s    | --squeeze-blank    | Do not display repeated blank empty text file lines                               |
| -T    | --show-tabs        | Display a ^I when a Tab character is encountered                                  |
| -v    | --show-nonprinting | Display nonprinting characters when encountered using either ^ and/or M- notation |

- b) Name the locations from which most BIOS setups allow you to load the bootloader program. (6)
- ANSWER:** Most BIOS setups allow you to load the bootloader program from the following locations:
1. Hard drive
  2. CD/DVD drive
  3. USB drive

4. Network (PXE boot)
5. Floppy drive
6. SSD (Solid State Drive)

c) Complete the following table with regards to GRUB Legacy global commands. (6)

| Setting     | Description  |
|-------------|--|
| color       | Sets the color for the GRUB menu text                  |
| default     | Specifies the default boot entry                       |
| fallback    | Specifies the fallback boot entry if the default fails |
| hiddenmenu  | Hides the GRUB menu unless a key is pressed            |
| splashimage | Sets the background image for the GRUB menu            |
| timeout     | Sets the timeout period for the GRUB menu              |

d) Describe the Linux boot process. (6)

ANSWER:

The Linux boot process involves several steps:

1. BIOS/UEFI Initialization: The system's firmware initializes the hardware and performs POST (Power-On Self Test).
2. Bootloader Execution: The BIOS/UEFI loads the bootloader (GRUB, LILO, etc.) from the configured boot device.
3. Kernel Loading: The bootloader loads the Linux kernel into memory.
4. Kernel Initialization: The kernel initializes the hardware and mounts the root filesystem.
5. init Process: The kernel starts the init process (or systemd), which is the first user-space process.
6. Startup Scripts: init runs startup scripts to initialize system services and configure the environment.

e) Describe the Linux GRUB Legacy and GRUB2 bootloaders. (12)

ANSWER:

GRUB Legacy:

- The older version of the GRUB bootloader.
- Uses a configuration file `/boot/grub/menu.lst` or `/boot/grub/grub.conf`.
- Supports basic boot configurations, with limited scripting capabilities.
- Uses a simple command line interface for troubleshooting and manual booting.

GRUB2:

- The modern version of the GRUB bootloader with more features and flexibility.
- Uses a configuration file `/boot/grub/grub.cfg`.
- Supports advanced scripting, themes, and complex boot configurations.

- Includes improved hardware support and modular architecture.
- Provides graphical and text-based boot menus, with automatic detection of operating systems.

f) Describe how to recover from a kernel panic.

(6)

ANSWER:

**Reboot the System:** If possible, reboot the system and select a different kernel from the bootloader menu.

**Boot into Recovery Mode:** Use the recovery mode or single-user mode to troubleshoot the issue.

**Check Logs:** Examine system logs (/var/log/syslog, /var/log/messages, or dmesg) to identify the cause of the panic.

**Revert Recent Changes:** Undo any recent changes to the system, such as kernel upgrades, hardware modifications, or configuration changes.

**Reinstall Kernel:** If the kernel is corrupted, boot from a live CD/USB and reinstall or repair the kernel.

**Seek Help:** If the issue persists, seek help from forums, support communities, or professional support services.

### Question 3

(30)

a) Describe network troubleshooting tools

(12)

ANSWER:

**ping:** A basic network utility used to test connectivity between two devices. It sends ICMP echo request packets to the target host and listens for ICMP echo replies, measuring the round-trip time. It helps determine if a host is reachable and the latency of the connection.

**traceroute (or tracert on Windows):** This tool traces the path packets take from the source to the destination, listing all intermediate hops. It helps identify where delays or failures occur in the network.

**nslookup and dig:** These tools query DNS servers to resolve domain names into IP addresses. They are useful for diagnosing DNS-related issues and ensuring that domain names are correctly mapped to IP addresses.

**netstat:** Displays network connections, routing tables, interface statistics, masquerade connections, and multicast memberships. It helps identify active connections and troubleshoot connectivity issues.

**ifconfig (deprecated in favor of ip):** Used to configure and display network interface parameters for Linux and Unix systems. It shows IP addresses, netmasks, and interface statuses, aiding in interface-related troubleshooting.



ip: A modern replacement for ifconfig, it manages network interfaces, IP addresses, routing tables, and ARP tables. It provides more comprehensive and detailed information for network troubleshooting.

tcpdump: A command-line packet analyzer that captures and displays network traffic passing through an interface. It helps in analyzing and diagnosing network traffic and identifying issues at the packet level.

wireshark: A graphical network protocol analyzer that captures and displays network packets in real-time. It allows deep inspection of network traffic and is used for diagnosing complex network issues.

mtr: Combines the functionality of ping and traceroute, providing a continuous analysis of the route between the source and destination. It helps identify packet loss and latency issues over time.

arp: Displays and modifies the system's ARP table, which maps IP addresses to MAC addresses. It helps resolve issues related to address resolution and connectivity on local networks.

route: Displays and manipulates the IP routing table. It helps troubleshoot routing issues by showing the path that data takes to reach its destination.

nmap: A network scanner used to discover hosts and services on a network. It helps identify open ports, running services, and potential security vulnerabilities.

b) Clarify the CPU troubleshooting procedures

(4)

**ANSWER:**

**Check Connections:** Ensure the CPU is properly seated in the socket and that the power connectors are securely attached. Verify that the CPU fan is connected and functioning to prevent overheating.

**Monitor Temperatures:** Use BIOS/UEFI settings or software tools to monitor CPU temperatures. Ensure the cooling system (fans, heatsinks) is adequate and functioning correctly to avoid overheating issues.

**Run Diagnostic Tests:** Use CPU diagnostic tools and stress tests (such as Prime95 or Intel's Processor Diagnostic Tool) to check for stability and performance issues. These tests help identify if the CPU is functioning correctly under load.

**Inspect BIOS/UEFI Settings:** Ensure the BIOS/UEFI settings are correctly configured for the CPU. Update the BIOS/UEFI firmware if necessary to resolve compatibility issues or bugs.

c) Explain memory problems and solutions.

(14)

ANSWER:

Check Connections: Ensure the CPU ✓ is properly seated in the socket and that the power connectors are securely attached. Verify that the CPU fan is connected and functioning to prevent overheating.

Monitor Temperatures: Use BIOS/UEFI ✓ settings or software tools to monitor CPU temperatures. Ensure the cooling system (fans, heatsinks) is adequate and functioning correctly to avoid overheating issues.

Run Diagnostic Tests: Use CPU ✓ diagnostic tools and stress tests (such as Prime95 or Intel's Processor Diagnostic Tool) to check for stability and performance issues. These tests help identify if the CPU is functioning correctly under load.

Inspect BIOS/UEFI Settings: Ensure the BIOS/UEFI settings are correctly configured for the CPU. Update the BIOS/UEFI firmware if necessary ✓ to resolve compatibility issues or bugs.

## Question 4

(15)

- a) Summarize user access problems/solutions.

(6)

ANSWER:

Common User Access Problems:

Forgotten Passwords:

Solution: Use password recovery tools or administrative ✓ intervention to reset the user's password.

Account Lockouts: ✓

Solution: Unlock the account through the administrative ✓ console or command-line tools. Check for repeated failed login attempts and advise on using correct credentials.

Insufficient Permissions:

Solution: Adjust user permissions ✓ and access controls to ensure the user has the necessary rights to perform required tasks.

Network Connectivity Issues: ✓

Solution: Verify network connections, troubleshoot network settings, and ensure the user is connected to the correct ✓ network.

Expired Accounts:

Solution: Reactivate or extend the user's account validity period through the administrative console or command-line ✓ tools.

## Misconfigured Authentication Settings:

**Solution:** Check and correct authentication settings such as domain membership, group policies, and authentication servers.

- b) Describe how Linux systems communicate with devices. (4)

**ANSWER:**

Linux systems communicate with devices using a combination of kernel modules, device files, and system calls:

**Kernel Modules:** Kernel modules (drivers) are pieces of code that the Linux kernel uses to manage hardware devices. They provide the necessary instructions for the kernel to interact with the hardware.

**Device Files:** Located in the /dev directory, these special files represent hardware devices. Each device file corresponds to a physical or virtual device, allowing user-space programs to interact with hardware using standard file operations (read, write, etc.).

**System Calls:** User-space applications communicate with devices through system calls. These calls are routed through the kernel, which interacts with the appropriate device driver to execute the requested operations.

**udev:** The udev system dynamically manages device nodes in the /dev directory. It handles the addition and removal of devices, ensuring that device files are created or removed as needed.

- c) Complete the following table with regards to directory permission effects. (5)

| Permission | Effect   |
|------------|--|
| r          | Allows user to display directory's files                             |
| w          | Allows user to create, delete, and rename files within the directory |
| x          | Allows user to access the directory and execute files within it      |

| Mark allocation for student |              |              |              |
|-----------------------------|--------------|--------------|--------------|
| Section                     | Sub-section  | Maximum Mark | Learner mark |
| Assessment body             | Question 1.a | 15           | 15           |
|                             | Question 1.b | 13           | 13           |
|                             | Question 1.c | 7            | 7            |
|                             | Question 1.d | 8            | 8            |
|                             | Question 1.e | 12           | 12           |
|                             |              |              |              |
|                             | Question 2.a | 14           | 14           |
|                             | Question 2.b | 6            | 6            |
|                             | Question 2.c | 6            | 6            |
|                             | Question 2.d | 6            | 6            |
|                             | Question 2.e | 12           | 12           |
|                             | Question 2.f | 6            | 6            |
|                             |              |              |              |
|                             | Question 3.a | 12           | 12           |
|                             | Question 3.b | 4            | 4            |
|                             | Question 3.c | 14           | 14           |
|                             |              |              |              |
|                             | Question 4.a | 6            | 6            |
|                             | Question 4.b | 4            | 4            |
|                             | Question 4.c | 5            | 5            |
| Deductions                  | 1 day late   | -5           |              |

|        |             |     |     |
|--------|-------------|-----|-----|
|        | 2 days late | -10 |     |
|        | 3 days late | -15 |     |
| Total: |             | 150 | 150 |

## PRE-ASSESSMENT AGREEMENT

### *Assessment Preparation: Preparing the Candidate*

| Student name and surname   |  | Date         |                 |
|--|--|--------------|-----------------|
|  |  | Time         |                 |
| Assessor name and surname  |  | Venue        |                 |
| How to prepare the candidate   | Document Requirements  | Agree (tick) | Action Required |
| Explain to the candidate why you are meeting and the purpose of the assessment.                          | Assessment Policy<br>Assessment process  |              |                 |
| Discuss the assessment plan in detail.   | Assessment strategy  |              |                 |
| Explain assessment process, show assessment instruments to candidate and describe assessment conditions. | Assessment instruments   |              |                 |
| Identify the role-players during assessment.   | Assessors<br>Moderator   |              |                 |
| Describe the evidence required to be declared competent.   | Examples of evidence   |              |                 |
| Explain how evidence will be judged.   | Mark allocation explained  |              |                 |
| Explain to the candidate how to prepare: Give candidate assessment task description.                     | Assessment task description  |              |                 |
| Confirm with the candidate what he/she should bring to the assessment.                                   | Detailed briefing on exact requirements to be given to candidate in writing  |              |                 |
| Ensure that candidate understands the procedures of all assessment practices.                            | Appeals Policy<br>Appeals procedure<br>Assessment Policy<br>Assessment Procedure<br>Moderation Policy<br>Moderation procedure<br>Verification Policy<br>Verification Procedure |              |                 |

|  |            |  |  |
|--|------------|--|--|
| Ask the candidate if he/she foresees any problems or identify any special needs. | List needs |  |  |
|--|------------|--|--|

| Agreed Assessment Plan  |                         |                          |                                 |
|---|-------------------------|--------------------------|---------------------------------|
| Student name and surname:   |                         |                          |                                 |
| Assessor name and surname:  |                         |                          |                                 |
| Module name:  |                         | Managing Modern Desktops |                                 |
| Unit Standard/s:  |                         | N/A                      |                                 |
| Type of Assessment i.e. Formative assignment, Formative test, Formative Practical, Summative etc. |                         | Formative Assessment 1   |                                 |
| Special Assessment Requirements:  |                         | N/A                      |                                 |
| Event   | Date, time and location | Resources required       | Evidence to be generated        |
| Assessments due date  |                         | Assessments              | Completed documentation         |
| Complete activity on MyAIE and upload to MyAIE  |                         |                          | Completed Portfolio of Evidence |
| Submit Portfolio of Evidence  |                         |                          |                                 |

| Assessor Roles and Responsibility |  |
|-----------------------------------|--|
| Roles                             | Assessor<br>Guide<br>Feedback Agent<br>Reviewer  |
| Responsibilities                  | Consult candidate re-assessment, assessment process and plan.<br>Agree assessment process and plan with candidate.<br>Forward documentation to candidate: plan, guide and assessment instruments.<br>Assess candidate with the use of different instruments.<br>Provide feedback on assessment findings.<br>Support candidate through assessment process.<br>Source feedback from candidate on assessment process.<br>Review assessment process and outcome. |

|  |  |
|--|--|
|  | Use assessment process as opportunity to transform assessment activities and outcomes. |
|--|--|

| Candidate Roles and Responsibility |   |
|------------------------------------|---|
| Roles                              | <ul style="list-style-type: none"> <li>• Leaner</li> <li>• Feedback agent</li> <li>• Reviewer</li> </ul>  |
| Responsibilities                   | <ul style="list-style-type: none"> <li>• Be available for assessment.</li> <li>• Be actively involved in the consultative process.</li> <li>• Learn from the assessment process.</li> <li>• Provide feedback to the assessor in terms of the assessment as learning activity.</li> <li>• Provide feedback to the assessor on the efficacy of the assessment process.</li> <li>• Review own role and assessor role in the assessment process.</li> </ul> |
| Assessment Instruments             | <ul style="list-style-type: none"> <li>• Portfolio of Evidence</li> <li>• Questionnaire</li> <li>• Report</li> <li>• Presentation</li> <li>• Reflexive questions</li> <li>• Work sample</li> <li>• Practical's</li> <li>• Group Activity</li> <li>• Research activities</li> </ul>  |

| Assessment Process   |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Evaluation of POE addressing Essential Embedded Knowledge in unit standards.</li> <li>• Evaluation of Research Projects and other evidence addressing specific unit standards.</li> <li>• Consultation: assessment plan and assessment activities and instruments. Pre-assessment moderation and interviews conducted at this stage.</li> <li>• Observation: feedback on assessment against specific outcomes, critical outcomes in unit standards.</li> <li>• Feedback: to candidate regarding sufficiency of evidence and possible interview to gain supplementary evidence.</li> <li>• Feedback to candidate regarding assessment findings as well as review process.</li> </ul> |  |
| Feedback   | Written feedback to be given to all stakeholders at the end of the assessment process, as well as verbal feedback to the candidate during assessment activities. |



|   |   |
|---|---|
| Recording Process   | Process and findings to be recorded and submitted for record keeping purposes as well as moderation and verification.                                       |
| Review Process  | The review process is the responsibility of the assessor and the candidate. Joint reviewing will take place after feedback has been given to the candidate. |
| Right to appeal   | The candidate must be advised of the right to appeal.   |
| Resources Required  | Assignments<br>• POE<br>• Assessments<br>• Guides   |
| I confirm that: <ul style="list-style-type: none"> <li>• I have been consulted on and have agreed to the training and assessment process as detailed in the assessment guide.</li> <li>• I have been advised of my right to appeal against any assessment that is unfair, unreliable, invalid or impracticable.</li> <li>• I have read and understood the appeal procedure.</li> <li>• I know that assessments may be moderated or verified by an external party.</li> <li>• The purpose of the assessment has been clearly explained to me.</li> <li>• The criteria have been discussed with me, and I know I will be assessed against these criteria.</li> <li>• I know when and where I will be assessed, and I was given fair notice.</li> <li>• I know how the assessment will be done, and any other requirements related to the assessment.</li> </ul> |   |

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

|                             |           |   |                   |  |
|-----------------------------|-----------|---|-------------------|--|
| Overall Assessment Decision | Competent | C | Not yet competent |  |
| Student's Signature         |           |   | Date:             |  |
| Assessor's Signature        |           |   | Date:             |  |
| Moderator's Signature       |           |   | Date:             |  |

## ASSESSMENT FEEDBACK AGREEMENT

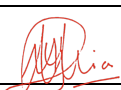
*Assessment feedback: Feedback to learner*

|                            |                          |
|----------------------------|--------------------------|
| Qualification Name:        |                          |
| Qualification SAQA Number: |                          |
| Subject Name:              | Managing Modern Desktops |
| Subject Code:              | MAMD                     |
| Assessment Name:           | Formative Assessment 1   |
| Assessment Code:           | MAMD_FA1                 |
| Assessment Type:           | Formative                |

| Feedback report         | 1st Attempt |     | 2nd Attempt |     |
|-------------------------|-------------|-----|-------------|-----|
|                         | C           | NYC | C           | NYC |
| Unit standard Number(s) |             |     |             |     |
| Question 1.a            | C           |     |             |     |
| Question 1.b            | C           |     |             |     |
| Question 1.c            | C           |     |             |     |
| Question 1.d            | C           |     |             |     |
| Question 1.e            | C           |     |             |     |
| Question 2.a            | C           |     |             |     |
| Question 2.b            | C           |     |             |     |
| Question 2.c            | C           |     |             |     |
| Question 2.d            | C           |     |             |     |
| Question 2.e            | C           |     |             |     |
| Question 2.f            | C           |     |             |     |
| Question 3.a            | C           |     |             |     |

|              |   |  |  |  |
|--------------|---|--|--|--|
| Question 3.b | C |  |  |  |
| Question 3.c | C |  |  |  |
| Question 4.a | C |  |  |  |
| Question 4.b | C |  |  |  |
| Question 4.c | C |  |  |  |
|              |   |  |  |  |
|              |   |  |  |  |

|  |  |
|--|--|
| General feedback to learner (Attempt 1)                |  |
| Supply comprehensive feedback why learner is found NYC |  |
|  |  |
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|                            |   |       |  |
|----------------------------|---|-------|--|
| Learner Number:            |   |       |  |
| Learner name and surname:  |   | Date: |  |
| Learner Signature:         |   |       |  |
| Lecturer name and surname: | M.Y.Mia   | Date: |  |
| Lecturer Signature:        |  |       |  |
| Assessor name and surname: |   | Date: |  |

|                             |  |       |  |
|-----------------------------|--|-------|--|
| Assessor Signature:         |  |       |  |
| Moderator name and surname: |  | Date: |  |
| Moderator Signature:        |  |       |  |

|   |
|---|
| Note to learner   |
| <p>Review the feedback provided by your lecturer to check that you have been found competent in this assessment. If there are any areas where you have been found not yet competent, you must redo those parts of the assessment and resubmit within the stipulated time frame.</p> <p>The section below will only be completed in cases where the learner was asked to resubmit parts of the assessment where they were found not yet competent.</p> |

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| General feedback to learner (Attempt 2)                |
| Supply comprehensive feedback why learner is found NYC |
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|----------------------------|--|-------|--|
| Learner Number:            |  |       |  |
| Learner name and surname:  |  | Date: |  |
| Learner Signature:         |  |       |  |
| Lecturer name and surname: |  | Date: |  |

|                             |  |       |  |
|-----------------------------|--|-------|--|
| Lecturer Signature:         |  |       |  |
| Assessor name and surname:  |  | Date: |  |
| Assessor Signature:         |  |       |  |
| Moderator name and surname: |  | Date: |  |
| Moderator Signature:        |  |       |  |