

ICTNWK427 - Configure desktop environments

UNIT

Student Assessment

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| ICTNWK427 - Configure desktop environments | | Created: | 27/10/2020 |
| Student Assessment Guide (SAG) | | | |
| © Australian Institute of ICT (AIICT) | Version: 1.0 | Modified: |  |

# Assessment

## Assessment Overview:

This assessment task has been designed for you to demonstrate the skills required to identify and evaluate emerging technologies and practices to enhance organisational goals.

You will be assessed on your ability to:

1. Prepare to install a desktop operating system
2. Install desktop operating system
3. Configure desktop environment
4. Operate command line interface
5. Configure desktop security
6. Monitor and test desktop

You will also be assessed on the foundation skills embedded in this assessment, including:

* **Numeracy -** Analyses and demonstrates an understanding of numerical test measurements to evaluate workstation performance
* **Oral Communication** - Uses listening and questioning techniques to confirm information and requirements using industry for intended audience
* **Reading** - Identifies and interprets technical material, organisational policy and regulatory information to determine job requirements
* **Writing** - Prepares documentation detailing finalised process according to specified requirements
* **Problem solving** - Makes decisions that demonstrates an understanding of implications of legal and regulatory responsibilities related to own work

Carefully read through the scenario and requirements below and complete the task according to the instructions. Suppose your performance in this task is deemed unsatisfactory. In that case, your assessor will provide you with feedback and an action plan, including areas to focus on to improve your skills/knowledge to perform the task. Once you have had the opportunity to practice these skills, you can arrange to be re-assessed in this task.

Your submission must:

* Be completed independently, other than where external input is required, i.e. gathering feedback.
* Be in in six parts and show that you have followed the process provided in each task
* Include all information and workings, i.e. feedback and how you have incorporated it into the final report.

Important information before you start:

1. Download the assessment resources list in each task and review them carefully.
2. Carefully read through the scenario and requirements and complete the task according to the instructions.
3. Ensure that you have the equipment to run a Windows 10 vm

**Let’s get started…**

**Scenario**

You work for Accove as a computer technician. Your client Cosmic Music CBD is looking to attract customers to its city store by installing computers for customers to mix their own music. Once the customer has mixed the music the store will create custom artwork and provide the completed song on a flash drive.   
The store will eventually have ten computers setup but want to start with a prototype to make sure the plan will be successful.   
  


The client has requested that you build them a virtual machine with the music application and restore some backup music loops for testing.

The following ticket has been allocated to you:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Ticket # 237 | | | | | |
| Company | Cosmic Music CBD | Priority | Medium | Request Type | Change |
| Request | Setup VM for testing music editing | | | | |
| Note from manager | Cosmic Music CBD require the following setup for a computer trial.   * 1 x Virtual Machine * Operating System: Windows 10 or 11 (any version) * RAM: 2GB * HDD: 22GB (Partitioned 20GB for Windows and 2GB for data) * Hostname: MusicXX (Replace XX with your initials) * Software: Ocenaudio (audio editor)   You will be supplied with the fill backup of loops which need to be restored onto the VM for testing.  You will also need to research PC hardware options for the client suitable for running Windows and Ocenaudio. | | | | |

In preparation for completing this assessment review, the following files in the ‘Document Library’ on your StudySpot portal:

* SLA\_Base.pdf
* WHS Site policy.pdf
* Accove security policy.pdf
* Backup music loops.zip
* ocenaudio\_win64\_3.10.13.exe

**Task 1. Prepare to install a desktop operating system**  
**1.1** Prior to setting up the Windows virtual machine, carry out research on Ocenaudio and complete the following table:

|  |  |
| --- | --- |
| Answer: | |
| URL for the Ocenaudio website | <https://www.ocenaudio.com/> |
| Features of Ocenaudio | Audio Capture  Audio Editor  Audio Manipulation  Audio Recording  Configuration Management  File Management  Mastering  Media Library |
| Requirements to run Ocenaudio | Ocenaudio is available for all the most popular operating systems: Microsoft Windows, Mac OS X, and Gnu / Linux. This means that you will be able to use Ocenaudio on any computer. Applying sound effects such as EQ, gain, and filtering is an important part of audio editing. |
| Trainer Use Only | |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: | |
| Click here to enter text. | |

**1.2** Outline the following requirements

|  |  |
| --- | --- |
| Answer: | |
| Licensing Information | Windows: <https://www.microsoft.com/en-us/licensing/product-licensing/windows> |
| Ocenaudio: |
| Data migration and management *(How will music data be copied/stored/shared on the PC’s)* | Open the Users folder, and then open the user folder that contains the files that you want to back up.  Copy the necessary folders from the user folder to a network location or to removable media. |
| PC hardware required *(research suitable PC hardware including price, brand, specifications and website)* | **Name: HP ZBook Fury G9 16** **Price: $3,697.90** **Brand: HP**  |  |  | | --- | --- | | GENERAL INFORMATION | | | **Manufacturer** | HP Inc. | | **Manufacturer Part Number** | 6X3J9UT#ABA | | **Manufacturer Website Address** | [http://www.hp.com](http://www.hp.com/) | | **Brand Name** | HP | | **Product Line** | ZBook Fury G9 | | **Product Name** | ZBook Fury G9 Mobile Workstation | | **Product Type** | Mobile Workstation | | MEMORY | | | **Total Installed System Memory** | 32 GB | | **System Memory Technology** | DDR5 SDRAM | | **System Memory Speed** | 4800 MHz | | **Installed Slot Memory Configuration** | 2 x 16GB | | **Number of Occupied Memory Slots** | 2 | | **Total Number of Memory Slots** | 4 | | STORAGE | | | **Drive Type** | SSD | | PROCESSOR | | | **Processor Manufacturer** | Intel | | **Processor Type** | Core i7 | | **Processor Generation** | 12th Gen | | **Processor Model** | i7-12850HX | | **Processor Core** | Octa-core (8 Core) | | **Maximum Turbo Speed** | 4.80 GHz | | STORAGE | | | **Total Solid State Drive Capacity** | 1 TB | | **SSD Form Factor** | NVMe M.2 PCI Express | | PROCESSOR | | | **vPro Technology** | Yes | | STORAGE | | | **Optical Drive Type** | No | | DISPLAY & GRAPHICS | | | **Screen Size** | 16" | | CHIPSET | | | **Chipset Manufacturer** | Intel | | **Chipset Model** | WM690 | | DISPLAY & GRAPHICS | | | **Display Screen Technology** | In-plane Switching (IPS) Technology | | **Screen Mode** | WUXGA | | **Screen Resolution** | 1920 x 1200 | | **Graphics Controller Manufacturer** | * NVIDIA * Intel | | **Graphics Controller Model** | * UHD Graphics * RTX A3000 | | **Graphics Memory Capacity** | 12 GB | | **Graphics Memory Technology** | * DDR5 SDRAM * GDDR6 | | **Graphics Memory Accessibility** | * Dedicated * Shared | | NETWORK & COMMUNICATION | | | **Wireless LAN** | Yes | | **Wireless LAN Standard** | IEEE 802.11ax | | **Bluetooth** | Yes | | BUILT-IN DEVICES | | | **Front Camera/Webcam** | Yes | | **Infrared Camera** | Yes | | **Finger Print Reader** | Yes | | INTERFACES/PORTS | | | **HDMI** | Yes | | **Total Number of USB Ports** | 2 | | **Network (RJ-45)** | Yes | | **Mini DisplayPort** | Yes | | **Number of Thunderbolt 4 Ports** | 2 | | SOFTWARE | | | **Operating System Platform** | Windows | | **Operating System** | Windows 11 Pro | | **Downgradable Operating System** | Windows 10 Pro | | **Operating System Language** | English | | INPUT DEVICES | | | **Keyboard Backlight** | Yes | | **Keyboard Localization** | English | | OPERATING SYSTEM | | | **Operating System Platform** | Windows | | BATTERY INFORMATION | | | **Number of Cells** | 8-cell | | OPERATING SYSTEM | | | **Operating System** | Windows 11 Pro | | **Downgradable Operating System** | Windows 10 Pro | | **Operating System Language** | English | | POWER DESCRIPTION | | | **Maximum Power Supply Wattage** | 230 W | | PHYSICAL CHARACTERISTICS | | | **Weight (Approximate)** | 5.27 lb | | MISCELLANEOUS | | | **Package Contents** |  ZBook Fury G9 Mobile Workstation   Lithium Polymer Battery   AC Adapter | | **Application/Usage** | Performance Computing | | **Features** | Anti-glare Screen |   <https://www.colamco.com/product/hp-inc-zbook-fury-g9-mobile-workstation-6x3j9ut-aba-2250766> |
| Trainer Use Only | |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: | |
| Click here to enter text. | |

**1.3** In preparation for installing Windows download the **“**Backup music loops.zip” file from StudySpot onto your local computer. Insert a screenshot of the downloaded zip file in the box below.

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| --- |
| Screenshot: |
|  |
| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**Task 2. Install desktop operating system**

Now that you have completed the required research and prepared backups, it is time to install Windows as a virtual machine.

For this taskyou are free to select a hypervisor of your choice. As per the scenario the Windows PC requires the following specifications:

|  |  |
| --- | --- |
| **Shape  Description automatically generated** | Operating System: Windows 10 or 11 (any version)  RAM: 2GB  HDD: 22GB (Partitioned 20GB for Windows and 2GB for data)  Hostname: MusicKA (Replace XX with your initials)  <https://www.microsoft.com/en-us/evalcenter/> |
|

**2.1** Install Windows onto your hypervisor using the specifications above. Carry out any upgrades, if required (such as increased CPU) to your VM and insert a screenshot in the box below showing the specifications (RAM, Hostname, HDD, OS).   
**Note:** ensure that you create a partition as per the specifications above

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| Screenshot/s: |
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| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**2.2** Review Device Managerto ensure there are no errors with network adapters and print queues as these are services the client will require to functionwhen the machines go live.   
Insert a screenshot of network adapters and print queues within Windows Device Manager showing no errors.

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| --- |
| Screenshot/s: |
|  |
| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**2.3** Complete patching on the virtual pc by completing windows updates. Insert a screenshot showing that updates up to date.

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| --- |
| Screenshot/s: |
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| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**2.4** With your pc patched, it’s time to copy the music files (Backup music loops.zip) you downloaded earlier onto the desktop of your virtual pc. Extract the zip file and copy the folder onto the desktop. Insert a screenshot of the extracted folder on your virtual desktop in the box below.

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| Screenshot/s: |
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| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**Task 3. Configure desktop environment**

**3.1** Review Device Manager on the virtual pc. Ensure that all hardware is performing correctly and that no errors/warnings are present. If warnings or errors are present carry out troubleshooting to resolve these issues. Insert a screenshot below of Device Manager showing all devices with no errors.

|  |
| --- |
| Screenshot/s: |
|  |
| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**3.2** Now that the computer is setup and updated you will need to create a local user account to simulate what a shop patron will use to mix their music.   
Create the following local account (non-admin). Name the account soundxx (replace xx with your initials) and insert a screenshot of the created account in the box below.

|  |
| --- |
| Screenshot/s: |
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| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**3.3** Within the 2gb partition create the following two folders:

* Music Loops
* Mixed Music

Copy the contents of the Backup music loops folder you placed onto the vm into the matching folders on the partition.

Insert a screenshot of the created folders with copied files in the box below

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| Screenshot/s: |
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| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**3.4** The Mixed Music folder will need to be shared in order for staff to copy the completed music files through the network. Share the Mixed Music folder you created in the last task. (Leave the folder with the default share permissions).

Insert a screenshot of the network share in the box below.

|  |
| --- |
| Screenshot/s: |
|  |
| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**3.5** Install the Ocenaudio application (available from StudySpot or the web) onto the Windows vm. Insert a screenshot of the software installed in the box below.

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| --- |
| Screenshot/s: |
|  |
| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**Task 4. Operate command line interface**The client would like certain tasks to occur on the **Mixed Music** share using command line. These tasks will eventually become automated scripts but at this stage you are testing only.

**4.1** Using Windows Command Prompt or PowerShell browse to the Mixed Music folder and insert a screenshot showing the directory contents in the box below. (Type help in command prompt for a list of commands)

|  |
| --- |
| Screenshot/s: |
|  |
| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**4.2** The client would like to run a script which would automatically remove files older than 5 days from the Mixed Music folder. Using Windows Command Prompt or PowerShell run a command to remove the files older than five days from the folder (there should be files in the folder from previous activities.

Note: you may use the following script or one you have created or researched. If you are using script change the directory information in bold to match your own directory.   
  
ForFiles /p "**e:\new Folder**" /s /d -5 /c "cmd /c del @file"

Insert a screenshot of the script being run.

|  |
| --- |
| Screenshot/s: |
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| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
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**Task 5. Configure desktop security**

Graphical user interface, text, application

Description automatically generatedThis next section will focus on securing the pc environment you have created in the previous tasks.

**5.1** Using Windows Group Policy editor, under Computer Configuration enhance the user account security for the PC.

Document changes you have made in the box below as well as a screenshot of the changes.

|  |
| --- |
| Answer: |
| Outline changes:  Minimum password Requirement has been changed from 0 char to 8 char.  Strong password is accepted only, So the risk of easy password cracking is minimized. |
| Screenshot: |
|  |
| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**5.2** The share (Mixed Music) created in task 3.3 has only standard permissions setup. Review the current folder permissions and make any changes that will help to protect the security of the share.

Insert a screenshot of the changes below.

|  |
| --- |
| Screenshot/s: |
|  |
|  |
| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
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Graphical user interface, text, application

Description automatically generated**5.3** Research the capabilities of AppLocker through the Microsoft website or other sources. Outline changes that you would recommend to secure the computer against unauthorised installations or application executions in the box below. Make the changes you have recommended and insert a screenshot in the box provided:

|  |
| --- |
| Answer: |
| Outline changes:  The Executable files can we restricted from execution. Here mshta.exe is deprived from execution.  Similarly other files can also we restricted to open via AppLocker. |
| Screenshot: |
| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**Task 6. Monitor and test desktop**

With your desktop now more secure, you will now need to monitor the performance, rectify any issues, and document the desktop environment ready for handover to your client.

**6.1** Test the desktop environment functionality and performance by running Windows Resource Monitor. The client requires a baseline of lower than 60% CPU and Memory. If your vm is running consistently higher than 60%, review and update as required to bring it into the acceptable baseline for the client.

|  |  |
| --- | --- |
|  | (Ensure CPU and Memory are below 60%) |

Insert a screenshot in the box below showing CPU and Memory for your vm

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| --- |
| Screenshot/s: |
|  |
| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**6.2** Review Windows Event Viewer, locate one (1) error or warning in your event log and enter it into the box below. Research how to fix the error then make the changes required, document the result below.

|  |
| --- |
| Screenshot/s: |
| Error: |
| Fix: 1. Open the registry editor on the computer that you want to connect/manage and navigate to the following registry location:  Computer\HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\COM3  2. At the right pane, double click at RemoteAccessEnabled and change the value data from 0 to 1.  3. Click OK and close the registry editor.  4. Restart the computer. |
| Fix implemented (screenshot): |
|  |
| Trainer Use Only |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: |
| Click here to enter text. |

**6.3** Complete the following desktop environment documentation and have it reviewed and signed off by your manager (trainer).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Documentation: | | | | | |
| Company | Cosmic Music CBD | Author |  | Date | 27/12/2022 |
| Computer Specifications *(RAM, CPU, OS etc)* | | RAM: 16 gb  CPU: Intel® Xeon® Platinum 8171M CPU @ 2.60GHz 2.10 GHz | | | |
| Applications Installed | | Ocenaudio application | | | |
| Shares and partitions | | Shares 2  Partition: 4 | | | |
| Desktop Security | | Password | | | |
| User Accounts | | VLADMIN - Administrator | | | |
| Manager Sign off | | I agree that the information contained in this report adheres with client requirements.  Manager Name: Manager Signature: Date: 27/12/2022 | | | |
| Trainer Use Only | | | | | |
| Satisfactory  Not Yet Satisfactory  Date: Click here to enter a date.  Trainer Feedback: | | | | | |
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