



# Ethiopian TVET-System



## **IT SUPPORT SERVICE LEVEL II** Based on May 2011 Occupational Standards

October, 2019

**Module Title: Operating Database Application**



**TTLM Code: ICT ITS2TTLM 1019v1**

**This module includes the following Learning Guides**

**LG15: Assess technical and user documentation**

**LG Code: EIS ITS2 M05 LO1-LG15**

**LG16: Update procedures**

**LG Code: EIS ITS2 M05 1019 LO2-LG16**

**LG17: Update documentation**

**LG Code: EIS ITS2 M05 1019 LO3-LG17**

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**Instruction Sheet****LG15: Assess technical and user documentation**

This learning guide is developed to provide you the necessary information regarding the Following content coverage and topics –

- Reviewing current version of technical and user documentation
- Comparing technical and user documentation with current system
- Identifying and documenting in accuracies for future reference.

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to –

- Current version of technical and user documentation is reviewed based on the latest operational procedures.
- Accuracy of technical and user documentation is compared with current system functionality.
- Inaccuracies are identified and documented for future reference

**Learning Instructions:**

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below **3 to 4**.
3. Read the information written in the information “Sheet 1, Sheet 2, and Sheet 3,” in **page 1, 5, and 8** respectively.
4. Accomplish the “Self-check 1, Self-check t 2, and Self-check 3” in **page 4,7, and 15** respectively

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## 1.1. Documentation

**Documentation** may refer to the process of providing evidence ("to document something") or to the communicable material used to provide such documentation (i.e. a document).

### 1.1.1. User documentation –

Designed for the end user of the computer hardware or software. It may not be a computer specialist

#### **Examples of user documentation**

- Instructional materials which usually come with the hardware or software such as installation instructions or a troubleshooting guide.
- Training materials designed to teach the user the skills required to use the hardware or software. Examples include tutorials and user manuals.
- Reference materials designed so users can look up a particular task. An example is a quick reference guide.
- Policies and procedures of an organization. This documentation helps all staff and management work to the same guidelines and rules.

### 1.1.2. Technical documentation

Technical documentation is the generic term for documentation with regard to a product. People mainly associate the term with the documents and information that are passed on to the public by the manufacturer. It is also a documentation that is produced for a person who has enough expertise in a particular computer system to support or maintain that system.

#### **Examples of technical documentation**

- User instructions
- Operating instructions
- Servicing instructions



- Installation manuals
- Software manuals

- **Why user documentation is important**

Computer users need documentation so that they can make the best use of their computers as work tools. A computer system can assist them to do their work efficiently and effectively but they need to be able to do three things:

- learn how to use the system and its applications
- know how to get help when they need to learn more
- know what to do when they experience problems.

Users will be working across all parts and levels of an organisation carrying out different functions such as data entry, financial administration, executive and middle management. However, user documentation is for anyone in an organisation who needs assistance with these three tasks.

- **Types of user documentation and appropriate media**

Books, manuals, computer-based tutorials and online help are all media for user documentation. Traditionally user documentation has consisted of a range of paper-based documents. However, we are no longer limited to these, and organisations are shifting their paper-based user documentation to an online form. There are very good reasons for this:

- increased productivity — users have up-to-date, comprehensive information that they can access quickly and easily.
- increased corporate intelligence — information is stored centrally but distributed universally
- consistency and quality — documentation appears in the same format and is easily updateable
- reduced printing costs.

- **Reflect**

What user documentation are you familiar with? Make a list of the different kinds of user documentation you have used or you are familiar with, both personally and at work.

- **Feedback**

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Your list could include a training manual, user guide, quick reference sheet, licensing agreement software registration form, maintenance manual, procedure manual, documentation register, online help, online tutorial, organisation's intranet, the Internet.

- **Standards organization's**

### What are 'standards organization's'?

- **Standards** ensure that levels of quality, safety, reliability and efficiency are incorporated into products and services when they are developed and used. Sometimes if we are disappointed in the quality of a product it is because it was not produced to a recognised standard. Standards organisations, such as **Standards Australia**, develop, monitor and maintain standards in many areas of business and industry.

- **What is ISO?**

ISO stands for the International Organisation for Standardisation. This is a global organisation that produces standards. Members are government bodies, industry associations and private organisations that have an interest in industry standardisation. They reach consensus on standards for industries that meet the needs of both industries and consumers.

The ISO standard IS1590 outlines the way user documentation should be planned. This standard is designed to be part of a contract but there is a new standard (IS18019) that will not have this restriction.

ISO 9000 is a quality management system. Organisations that meet the ISO 9000 standards are entitled to include this standard in their documentation. For example, the Open Training and Education Network, part of the NSW Department of Education and Training, is entitled to display the quality logo accredited by an organisation called Benchmark.

- **What is IEC?**

The International Electro technical Commission (IEC) prepares and publishes international standards for all electrical, electronic and related technologies. The IEC

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often works in conjunction with the ISO to put standards together, particularly standards for the IT industry. ISO user documentation standards were developed in conjunction with the IEC.

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Self Check 1

Written Test

Name: \_\_\_\_\_

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

*Instruction:* Answer all the questions listed below, if you have some clarifications- feel free to ask your teacher.

**I. Fill the blank space**

1. \_\_\_\_\_ ensure that levels of quality, safety, reliability and efficiency are incorporated into products and services when they are developed and used.
2. \_\_\_\_\_ prepares and publishes international standards for all electrical, electronic and related technologies.

**Note: Satisfactory rating – 2 points**

**Unsatisfactory - below 2 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_





## List of Reference Materials

### 1. BOOKS

2. <https://training.gov.au/Training/Details/ICTSAS506>
3. [web1.keira-h.schools.nsw.edu.au/faculties/IT](http://web1.keira-h.schools.nsw.edu.au/faculties/IT)

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## Information Sheet – 2

Comparing technical and user documentation with current system

### 2.1. Review current version of technical and user documentation

#### Why Documentation Review?

- ✓ Overall improvement
- ✓ Accurate and up-to-date documents
- ✓ Increases credibility

#### The Need

- ✓ Technically correct document
- ✓ Concise Information
- ✓ Avoid Chaos/disorder
- ✓ Timely Delivery
- ✓ Satisfaction

#### Review Objectives

- ✓ Evaluate the documented information
  - Accuracy = Correctness
  - Completeness = wholeness
  - Conciseness = shortness
- ✓ Reduce the defect percentage
- ✓ Improve the quality of documents
- ✓ Focus on correcting the defects

#### Types of documentation reviews

- Peer Review
  - Review by people who have coordinated knowledge and skills.
  - Provide a list of exactly what you need them to review
  - Assess peer review practice

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- Prepare procedure documents
- Formulate a program agenda
- Presentation Review
- Review amongst the technical writers
- Subject matter expert review
- Review for technical information
- Overall Review
- Review by the testing team for detecting defects.

### **The Review Process**

- Plan the review process
- Develop a clear, focused charge for each reviewer to identify important issues and invite suggestions for improvement.
- Prepare and maintain a review record.
- Make recommended changes to document and respond to the reviewer's comments.

### **Review Focus**

- ✓ Before circulation
  - Review the document for readability and clarity.
  - Review for correct English usage
  - Review and evaluate the technical content
  - Make a reviewers checklist
    - Focus on the technical review and not on editorial review
    - Verify the technical accuracy of all procedural steps.
    - Verify the accuracy of all screen captures in the document.
- ✓ After review
  - Review the sent checklist
  - Take a positive approach
  - Maintain a tracking list
  - Decide and let the reviewer know which comments would be incorporated
  - Call a meeting if required.



- Publish the final copy.

### **Challenges**

- Involving Team (Let us do it)
- Getting Proper reviews
- Handling Last Minute Changes

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Self Check 2

Written Test

Name: \_\_\_\_\_

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

*Instruction:* Answer all the questions listed below, if you have some clarifications- feel free to ask your teacher.

**II. Write the answer briefly**

1. Why Documentation Review?
2. List types of documentation reviews?
3. Write The Review Process?
4. List Challenges Review ?

**Note: Satisfactory rating – 2 points**

**Unsatisfactory - below 2 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_



## List of Reference Materials

### 1. BOOKS

2. <https://training.gov.au/Training/Details/ICTSAS506>
3. [web1.keira-h.schools.nsw.edu.au/faculties/IT](http://web1.keira-h.schools.nsw.edu.au/faculties/IT)

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Information Sheet – 3	Identifying and documenting inaccuracies for future reference.
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### **3.1. Comparing accuracy of technical and user documentation's with the current document (functionality will be treated later)**

Make sure the facts as stated in the document are correct, helpful, and on topic. To do a technical accuracy review, you really need to know your subject matter, probably as well or better than the original author. Use whatever other documentation is available for your subject, including man pages, program documentation, other printed books, etc. You might also use mailing lists on the topic, asking for third parties to verify certain facts of which you are in doubt.

When doing this type of review, consider if the information is only valid for certain types of hardware or software. If this is the case, make sure to note the limitations of the document within the document, either within the abstract or as a note at the beginning of the document. For example, if the solutions in the document only are relevant for one type or brand of hardware, make sure that that limitation is defined. This will keep readers from trying to apply a certain type of technology to an application or situation where it will not work.

The same should apply for the prerequisite knowledge of the reader. If prior knowledge of a subject is assumed or required, the author should say so somewhere at the beginning of the document, and it's helpful to ask that authors provide a Resource section for further reading, to bring readers that much closer to the required information.

### **3.2. Language Review**

Because writers come from all types of backgrounds, there may be problems within the documentation that need to be fixed. Writers may be very knowledgeable in their subject areas but not great writers, or they may be excellent writers but not completely fluent in the language of the document. The language review addresses these types of problems by focusing on language issues that make

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the document easier for the user to read and understand. Some of the problems that may occur within the document are poor sentence structure, grammar, organization, clarity, and spelling.

If you are doing a language review, you should be fluent in the language and the structure of the language. You want to consider both the logic and grammar of the document. Your primary goal in a language review is to identify and correct areas that could lead to confusion for the reader/user of the document. To this end, you can most certainly use language and grammar references such as dictionaries and handbooks when in doubt.

Although this review does address the structure and delivery of the language, you should not attempt to purge the document of individuality and personality in an attempt to make it "sound better" or more technical. Stilted or overformal, humorless language and structures are not the goals here. Again, your goal should be to make the document clear, unambiguous, and correct in spelling and grammar.

### 3.3. Items to evaluate:

- **Spelling.** Spelling should conform to a standardized English spelling of terms. For words that are new to the language and not yet standardized (for example technical Linux terminology that is generally accepted in the community), follow the most common spelling for the term.
- **Grammar.** For the purposes of this review, grammar should address issues such as standards of subject/verb agreement, pronoun/antecedent agreement, etc

For example, to say, "You will need to set several parameters in the config file to make it compile correctly. The ones you choose to set make a big difference."

- **Use of capital letters.** The document's title and section headings may follow one of two conventions, but must be consistent throughout. Titles may either capitalize only the first word, or may capitalize each word. In the second case the only words not capitalized in a title are prepositions, articles, and proper nouns which would not be capitalized.
- **Clarity.** Judgments on clarity are sometimes difficult to make. One successful strategy in evaluating clarity is asking the question "If I did not already know this information, would the explanation be clear from this document." If it is confusing to you and you already generally understand what the author is trying to say, then there is a good chance that the explanation is really confusing for someone reading the document for the first time. If you run across this

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situation, and you don't really know how to correct the technical explanation, or you are afraid your changes might affect the meaning of the document, ask for help from a technical expert. If no technical expert is available or no one responds to your requests, note the needed changes in the review and mark that these concerns need to be addressed in the technical review.

- **Organization.** In some cases the document would really benefit from a different structure. You should address these issues when they interfere with the understanding of the information within the document. If a document gives background information after a procedure has been performed, this may well be too late for the reader to fully consider the information he or she needs before performing the task. Look for document organization that might confuse or mislead the reader. These will be the types of issues you want to address. Once these are identified, it may be worthwhile to let the author know your rationale and discuss major changes with him or her.
- **Sentence Structure.** To some extent, sentence structure issues are discussed in the grammar section; however, there are some additional issues that are not grammatically incorrect but do interfere with the readers comprehension of the material. One of the most noticeable of these is stacked prepositional phrases.

Stacked prepositional phrases become a problem when the document's readability suffers because it becomes less and less clear what the subject and action of the sentence are. In some cases more precise descriptors are needed or sentences need to be changed from one long sentence that is hard to comprehend, to two or three more easily read sentences.

- **Readability.** This area is somewhat subjective. What passes for fairly readable material to one person might be confusing to someone else. Because this is a value judgement you should be cautious when marking up an author's work for readability. Realize when basing a judgment on readability that you might be dealing with preferences of style. In evaluating readability you must consider whether or not the way the document is written truly interferes with the readers understanding of the information. If the answer you come up with is "No, but it doesn't sound like I think it should." then you should probably not re-write the text to make it sound better to you.

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- **Title.** The title should be in proper title case. The general principle for this is that all words are capitalized in a title except prepositions and articles (an article will be capitalized if it is the first word in the title).
- **Date Formats.** Dates should be in standard ISO format, which is YYYY-MM-DD.
- **Definitions of Acronyms or Slang.** Terminology and language within the realm of computer technology changes rapidly. In reviewing documents you may find that many of the terms that are being discussed are not valid words in any dictionary or technical reference that you are familiar with. Terms that are less familiar should be defined immediately following the first instance of the term. Slang should be replaced with more common terminology if the slang will causes the reader to be confused by the connotation or denotation of the term. Remember that readers using the document may not come to English as a primary language and, therefore, you should do your best to make sure that the document is as easy to understand as possible.
- **Latin abbreviations.** Avoid using abbreviations. e.g. (for example), et al. (and others), etc (and so on) and i.e. (that is) should always use the English equivalent.

### 3.4. Metadata and Markup Review

In order for these scripts to work, documents must use valid markup and include specific metadata.

- **Markup** is a modern system for interpretation of a text in a way that is syntactically distinguishable from that text. Example XML, Pdf, docs ...
- **Metadata** is information about the document and includes author information, copyright, license and a revision history of the document.

#### 3.4.1. Required Markup

- **DocBook** XML version
- **PDF**
- **CHM** (Compiled HTML Help): The **CHM** file type is primarily associated with 'HTML Help' by Microsoft Corporation.

#### 3.4.2. Required Metadata

The following elements are all required:

- **article info or book info**

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- **Title.** Every document must contain a short, descriptive title. It should be reasonably unique; check other documents in the collection to make sure your document's title is distinctive from all other documents.
- **Abstract.** A short description of your document must be included in the abstract. This description is typically one or two sentences in length.
- **Author.** Every document must have an author. If there are multiple authors, you may use author group. If the document was prepared by an organization with no individual author, please use author group instead.
- **Editor.** Every new document must go through the review process and have a technical, language and metadata/markup review editor listed
- **update.** The date of publication for the document. The date should be in the ISO standard of YYYY-MM-DD.
- **Copyright.** Authors will always retain the copyright to any documents they submit to the LDP. Although it is not required, a copyright notice may be included. A license, however, is always required.
- **Revision history.** A summary of revisions should be included in the document. The initial release of a document should be marked up as Version 1.0. Subsequent updates should increment the version number appropriately. The preferred format is Major. Minor .Bugfix, where each section is an integer. Some authors use Alan Cox style versions (for example 1.4pre-3) and some include additional information (for example 1.3beta). This is acceptable but not encouraged. The most important thing is that we *have* a version number so we know which version we are dealing with! Once a document goes through review it should advance in minor or bugfix version number, depending on the amount of change introduced.
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Self Check 3

Written Test

Name: \_\_\_\_\_

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

*Instruction:* Answer all the questions listed below, if you have some clarifications- feel free to ask your teacher.

**I. Fill the blank**

1. \_\_\_\_\_ is a modern system for interpretation of a text in a way that is syntactically distinguishable from that text. Example XML, Pdf, docs ...

2. \_\_\_\_\_ is information about the document and includes author information, copyright, license and a revision history of the document.

**Note: Satisfactory rating – 1 points**

**Unsatisfactory - below 1 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_



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<b>Instruction sheet</b>	<b>LG16- Update procedures</b>
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This learning guide is developed to provide you the necessary information regarding the Following content coverage and topics –

- Determining operational procedure
- Developing / updating operational procedures
- Submitting proposed operating procedures to appropriate person.

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to –

- Operational procedure requirements are determined using review outcomes.
- Operating procedures are developed / updated for the system.
- Proposed operating procedures are submitted to appropriate person.

### **Learning Instructions:**

5. Read the specific objectives of this Learning Guide.
6. Follow the instructions described below 3 to 6.
7. Read the information written in the information “Sheet 1, Sheet 2, and Sheet 3” **in page 1, 4 and 8** respectively.
8. Accomplish the “Self-check 1, Self-check 2, and Self-check 3”, **in page 3,6 and 16** respectively
9. If you earned a satisfactory evaluation from the “Self-check” proceed to “Operation Sheet 1” **in page 8.**
10. Do the “LAP test” **in page 19.**



### 1.1. Operating Procedure (OP)

An Operating Procedure (OP) is a set of written instructions that document a routine or repetitive activity followed by an organization. The development and use of Ops are an integral part of a successful quality system as it provides individuals with the information to perform a job properly, and facilitates consistency in the quality and integrity of a product or end-result.

#### 1.1.1. Operational Procedure: Creating, updating and reviewing policies and procedures

This Operational Procedure is issued under the authority of the Assistant Commissioner (General Counsel) and should be read together with the ACNC Policy Framework, which sets out the scope, context and definitions common to our procedures.

##### Procedure

- This Operational Procedure sets out the procedures for developing, updating and reviewing policies and procedures used at the ACNC. In this procedure, the term 'policy or procedure' includes Commissioner's Policy Statements, Commissioner's Interpretation Statements, Corporate Policies, Operational Procedures and Work Instructions.
- Each Directorate is responsible for updating and reviewing the policies and procedures relevant to their business (see list in Policy & Forms database of policies, procedures and their responsible directorates). Development of new policies and procedures can be undertaken by any Directorate, as needs arise.

##### Identifying the need

- You may need a new policy for several reasons, including:
  - there is a decision or discretion that the ACNC needs to exercise under ACNC legislation
  - there is a need to develop a policy for some aspect of the ACNC's business, or
  - there is an emerging or significant risk.
- You may need a new procedure for several reasons, including:
  - to assist staff with implementing a new policy
  - to clarify roles and responsibilities, or
  - to ensure consistency in administering our legislation.



- You may need a new work instruction for several reasons, including:
  - to assist staff with implementing a work process
  - to clarify particular roles and responsibilities, or
  - to ensure consistency in our work processes.
- You may need to revise a policy or procedure if there is a change to our legislation, policy or work processes.





Self Check 1	Written Test
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Name: \_\_\_\_\_

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

*Instruction:* Answer all the questions listed below, if you have some clarifications- feel free to ask your teacher.

**III. Say True if statement is correct say False if statement is Incorrect**

1. An Operating Procedure (OP) is a set of written instructions that document a routine on repetitive activity followed by an organization.
2. Operational Procedure is issued under the authority of the Assistant Commissioner (General Counsel) and should be read together with the ACNC Policy Framework, which sets out the scope, context and definitions common to our procedures.
3. You may need a new work instruction to assist staff with implementing a work process

**Note: Satisfactory rating – 2 points**

**Unsatisfactory - below 2 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____



## 2.1. Updating Software

Software programmers gradually develop updates for their software packages as they discover problems with the software and design tools to address or fix these problems. This can be true for any of the types of software described in [section 2.3](#), but is typically most common and important for operating systems. It is important for a computer user to find and install software updates in order to have well performing computers. Updating software can be done in a variety of ways, described below.

### 2.1.1. Automatic Updates.

If

a computer is on a reasonably fast Internet connection, the easiest way to keep it up to date is to allow the programs to automatically check for updates and download and install them as needed. When setting up a new computer with Microsoft Windows, this is the choice that the software recommends. It does not require any action on the part of the user, and results in a computer system that is current. To turn on automatic updates for a Windows operating system, find the Systems and Maintenance options in the Control Panel.

### 2.1.2. Automatic Alerts for Updates.

If a computer is connected to the Internet, but the connection is slow at some times of the day, another option is to have the computer automatically check for updates but not download or install them until the user elects to do so. For Microsoft Windows computers, if this option is selected, an alert appears in the computer's system tray stating that there are updates waiting, and then the user can wait until the Internet is faster to install these updates.

### 2.1.3. Manual Updating.

A

computer user can also turn off all automatic update checking and choose to manually check for updates. For a computer that is rarely connected to the Internet, this would be a good option as long as the user remembered to check when connecting to the Internet. Also some programs do not have automatic update options, and can only be updated in this manner. A



program usually has a menu item titled “check for updates” that a user can click on when connected to the Internet.

#### 2.1.4. Offline Updating.

If

a computer is in a location that never has access to the Internet, a computer lab manager will need to download updates from a computer that is connected to the Internet and then transfer them (via a disk or flash drive) to the computer in question to be installed. This option is also useful if a computer lab has several computers that all need the same update. Instead of having each computer download the update separately, one computer could download the update and then it could be shared amongst all of the computers. Offline updates for operating systems can easily be found through Internet searches. Updates to download for Windows computers can also be found through [www.microsoft.com/downloads](http://www.microsoft.com/downloads).

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Self Check 2

Written Test

Name: \_\_\_\_\_

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

*Instruction:* Answer all the questions listed below, if you have some clarifications- feel free to ask your teacher.

**I. Choose the correct answer**

1. .If a computer is on a reasonably fast Internet connection, the easiest way to keep it up to date is to allow the programs to automatically check for updates and download and install them as needed.

A/ Offline Updating      B/ Manual Updating      C/ Automatic Updates      D/None

2. A computer user can also turn off all automatic update checking and choose to manual check for updates.

A/ Offline Updating      B/ Automatic Updates      C/ Manual Updating      D/None

**Note: Satisfactory rating – 1 points**

**Unsatisfactory - below 1 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_



<b>Operation Sheet 1</b>	<b>Developing / updating operational procedures</b>
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**Method of operational procedures**

**Automatic Updates software**

**Step 1-** connect to internet the device

**Step 2-** Allow the program automatically check for update

**Step 3-** download

**Step 4.** Install



<b>Information Sheet – 3</b>	<b>Submitting proposed operating procedures to appropriate person.</b>
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### 1.1. Types and purpose of user documentation

#### Types of user documentation

Users might need to consult a range of documentation in order to install, configure and/or use the functions of a system or application. There are many different types of user documentation depending on what users require. For example, a new staff member using a particular IT system for the first time needs to refer to a user guide and tutorials and online help. In other words, they firstly need documentation that helps them learn to use the software. As they become more familiar with the system, they will need access to other types of documentation such as FAQs (Frequently Asked Questions).

#### Reflect

Think of the types of user documentation you have seen at a workplace. Do some of your examples include the following?

Documentation type	Description
Project specifications	specifies the detailed business requirements of the project including how the system will work and the underlying functionality
Reports	produced by the system, program, network or application
Help resources	provides online Help, quick reference cards, scenarios, FAQs (Frequently Asked Questions). Users can search for help on using of a specific system, program, network or application



User manual/guide	describes how the user will use a system, program, network or application to do their job
Training materials	train staff in how to use a system, program, network or application to do their job
Self-paced tutorials	teach staff how to use a system, program, network or application to do their job. These may be online or paper-based tutorials.
Brochures	outline what a computer application does

### The purpose of user documentation

What is the documentation going to be used for? This is the first question to ask before starting to create any user documentation. When you are satisfied that you have an answer, you can then decide what type of documentation you are going to produce.

### Reflect

Think about documentation you have used and recall why you needed to refer to it. What was the main purpose of the documentation? What did it enable you to do? These are some examples of user documentation and their purpose.

Examples	Purpose
A project specification, training manual, user guide, tutorials or help that provides step by step guidance in how to use the software.	to learn how to use a piece of software
A training manual, quick reference guide or user guide that provides detailed commands and specifications of a software package to assist with troubleshooting problems.	to refer to a specific feature of a piece of software

Once you have decided what the purpose of your documentation is and what type of documentation you are going to produce, you can look at the needs of the potential users of the documentation.

### Users' needs

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A **needs analysis** is a process where the needs of the target groups for the documentation are identified and analysed. This analysis helps to make decisions on what the documentation should contain and what format is most suitable. For example, Data Entry staff in a call centre need to know how to correctly enter data in a database so that orders can be generated correctly from a database. For training materials and online help a needs analysis should be conducted in person with the staff who will need the documentation. For other documentation a look at the needs of the users without speaking directly to staff is sufficient.

After considering user characteristics and needs, possible solutions can be found, for example:

<b>User characteristic</b>	<b>User need</b>	<b>Possible solutions</b>
level of computing experience	beginner to expert	create different sections for different levels of experience
experience with the particular system or application	beginner to expert	create different sections for different levels of experience
frequency of use with a particular system or application	constant, frequent to weekly, monthly, annually	there must be initial training with some sort of follow-up support
workplace tasks	simple, repetitive tasks to complex tasks	documentation must clearly relate to the tasks at hand
work practices and environment	eg part-time, shift work, office, warehouse	occupational health and safety documentation is essential





User characteristic	User need	Possible solutions
language skills	difficulty reading and understanding written language to very competent readers	<ul style="list-style-type: none"> <li>• keep language simple, use plain English</li> <li>• explain technical terms and jargon if they must be used</li> <li>• avoid long uncommon words if simple words will do</li> </ul>
cultural background	language appropriate to some users may not be appropriate for others	<ul style="list-style-type: none"> <li>• use language appropriate for all users</li> <li>• American spelling often appears in documentation, since it is often where the software originates</li> </ul>
personal characteristics such as aptitude, educational background, age, disability	users will learn at varying pace	make sure individual needs are catered for to organisational policies



User characteristic	User need	Possible solutions
level of confidence	users might be fearful and not confident with computers	<ul style="list-style-type: none"> <li>• be positive and encouraging in your approach</li> <li>• avoid reinforcing negative attitudes</li> </ul>

It's almost impossible to cater for all these variations. However in preparing documentation for a new user, you would obviously not confuse them with technical jargon on the first page! You need to find a balance and remember that any documentation must be consistent with the organisation's policy, conventions and standards.

For any form of documentation to be useful it must be designed with the needs of its potential users in mind. An analysis of the requirements of the users, and the way their needs can be effectively addressed, is a critical step in the process of determining documentation requirements.

What to include in user documentation

It's a good idea at this stage to think about the content that you will include in the user documentation. This is so you can estimate the number of pages, the complexity of the content and what the graphic and text components will be.

The content will have some influence on:

- design of the documentation, including layout, use of text and graphics
- medium, eg paper-based or online
- the time and resources needed to develop the documentation.

### Media for user documentation

You can consider paper-based documentation, online documentation or a combination of both. The media type you choose will be influenced by the:

- 1 purpose of the documentation



2 user needs and characteristics

3 content (subject matter).

Always keep in mind that you need to include a range of items that allow users to access the required information quickly and easily. There are advantages and disadvantages to online and paper media.

Media	Advantages	Disadvantages
Paper	<ul style="list-style-type: none"> <li>• conventional, most people are used to paper products</li> <li>• easy and fast to prepare</li> <li>• inexpensive to produce</li> <li>• requires readily available software</li> </ul>	<ul style="list-style-type: none"> <li>• hard to maintain control of different versions</li> <li>• costly to update</li> </ul>
Online	<ul style="list-style-type: none"> <li>• convenient</li> <li>• easy to reach many people geographically dispersed</li> <li>• can be colourful and fun</li> <li>• can link to other related documents</li> <li>• easy to maintain version control</li> <li>• not costly to update</li> </ul>	<ul style="list-style-type: none"> <li>• can be expensive</li> <li>• requires specialised software</li> </ul>

### Reflect

Think about when you would be most likely to use paper and when you would use online.



Paper is appropriate in most circumstances. It is the most commonly used method of delivering documentation, so most people are used to it and like it. However, when staff are dispersed across a country or around the world, online delivery is best. Everyone can access the same documentation and only one version is available. Where user documentation is going to be used primarily as a help tool, then online help is most appropriate. It allows for easy searching across the documentation.

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## Designing templates

Once you have determined the documentation requirements, you can develop a template that meets those requirements and makes the job easier. A template is a file that contains a standard layout, styles and fonts that are used in the production of the documentation.

When you want to create a file for user documentation, you open the standard template, usually in Word, and the layout, fonts and styles are already set up in the document. All you need to do is start writing. Everyone uses the same template, so there is a consistent look and feel to all of the user documentation.

The template may be:

- a Word template
- an HTML template
- an online help template.

The medium will determine what kind of template you use.

## Features of templates

### Paper-based documentation

Features that may be included in paper-based documentation are:

- table of contents
- columns and tables
- page and section numbering
- headers and footers
- graphics and text surrounds
- substantially chunked information.

### Online documentation

Features that may be included in online documentation are:

- table of contents hyperlinks

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- tables
- links to other pages/sites
- navigation icons
- usability/functionality
- heavy use of graphics.

### **Obtaining sign-off on templates**

Like all documentation, templates also need to be signed-off by the relevant people. The sign off process will be outlined in the organisational documentation policy.

The content of the template will depend on the purpose of the documentation. A template for training materials will look quite different to a template for a procedural manual.

The template should be designed in consultation with users or a subject expert. Once the template has been designed, it should be distributed according to the user documentation policy, or, the agreed review process if you are working towards final sign-off.

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Self Check 3

Written Test

Name: \_\_\_\_\_

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

*Instruction:* Answer all the questions listed below, if you have some clarifications- feel free to ask your teacher.

**I. Fill the blank space**

1. \_\_\_\_\_ is a process where the needs of the target groups for the documentation are identified and analyzed.
2. \_\_\_\_\_ specifies the detailed business requirements of the project including how the system will work and the underlying functionality.
3. \_\_\_\_\_ how the user will use a system, program, network or application to do their job

**Note: Satisfactory rating – 2 points**

**Unsatisfactory - below 2 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_



**LAP Test**

**Practical Demonstration**

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

Time started: \_\_\_\_\_ Time finished: \_\_\_\_\_

**Instructions:** Given necessary templates, tools and materials you are required to perform the following tasks within 1 hour.

**Task 1. Identify if connection present**

**Task 2. Automatic Updates software you want to update**



**Instruction Sheet****LG17: Update documentation**

This learning guide is developed to provide you the necessary information regarding the Following content coverage and topics –

- Reviewing Feedback and making appropriate changes
- Updating Technical and user documentation
- Submitting technical and user documentation for final approval
- Distributing technical and user documentation

This guide will also assist you to attain the learning outcome stated in the cover page.

Specifically, upon completion of this Learning Guide, you will be able to –

- Feedback is reviewed and appropriate changes are made as needed.
- Technical and user documentation are updated to incorporate changes.
- Technical and user documentation are submitted to appropriate person for final approval.
- Technical and user documentation are distributed as agreed with appropriate person.

**Learning Instructions:**

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 4.
3. Read the information written in the information “Sheet 1, Sheet 2, and Sheet 3” in page **1, 3, and 6** respectively.
4. Accomplish the “Self-check 1, Self-check 2, and Self-check 3” , in page **,2 , 5 and 7** respectively

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### **1.1. Why user documentation is important**

Computer users need documentation so that they can make the best use of their computers as work tools. A computer system can assist them to do their work efficiently and effectively but they need to be able to do three things:

- learn how to use the system and its applications
- know how to get help when they need to learn more
- know what to do when they experience problems.

Users will be working across all parts and levels of an organisation carrying out different functions such as data entry, financial administration, executive and middle management. However, user documentation is for anyone in an organisation who needs assistance with these three tasks.

### **1.2. Types of user documentation and appropriate media**

Books, manuals, computer-based tutorials and online help are all media for user documentation. Traditionally user documentation has consisted of a range of paper-based documents. However, we are no longer limited to these, and organisations are shifting their paper-based user documentation to an online form. There are very good reasons for this:

- 1 increased productivity — users have up-to-date, comprehensive information that they can access quickly and easily.
- 2 increased corporate intelligence — information is stored centrally but distributed universally
- 3 consistency and quality — documentation appears in the same format and is easily updateable
- 4 reduced printing costs.

### **1.3. Reflect**

What user documentation are you familiar with? Make a list of the different kinds of user documentation you have used or you are familiar with, both personally and at work.

### **1.4. Feedback**

Your list could include a training manual, user guide, quick reference sheet, licensing agreement software registration form, maintenance manual, procedure manual, documentation register, online help, online tutorial, organisation's intranet, the Internet.



Self Check 1

Written Test

Name: \_\_\_\_\_

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

*Instruction:* Answer all the questions listed below, if you have some clarifications- feel free to ask your teacher.

**I. Say True if statement is correct Say False if statement is incorrect**

1. Decreasing productivity users have up-to-date, comprehensive information that they can access quickly and easily.
2. Increased corporate intelligence information is stored centrally but distributed universally
3. consistency and quality documentation appears in the same format and is easily updateable

**Note: Satisfactory rating – 2 points**

**Unsatisfactory - below 2 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_

**2.1. Determining your needs**

Before any venture into selecting any new equipment or services, it is important to have a clear understanding of your needs. If you don't fully understand your needs then it is not possible to ensure those needs are correctly met. In other words, know exactly what you want before you try to get it.

**2.2. Undertake a requirements analysis**

While we will not be examining all the finer details of performing a proper requirements analysis, it is worthwhile covering some of the basics.

Firstly, it is vitally important to put your goals into clear and concise terms. This might be in terms of a problem definition, or business plan for expansion, or upgrading your capabilities. Your definition should not include any details of specific solutions as far as equipment, suppliers etc.

You should also include a set of criteria such as time and cost limitations, types and levels of support, etc. If you document all these requirements, when you finally make your decision and implement it, you will be able to determine if it constitutes a successful project or not.

After considering your overall goals and criteria, you can then put into simple and uncomplicated terms what would be a solution to the problem or requirement.

**2.3. Evaluate your alternatives**

Collect all the information you can about the types of equipment available, the suppliers of that equipment, the training required to use the equipment or associated programs.

You need to have an open mind about the alternatives. Do not think that there is only one right choice, as there are always viable options. For example, you may not need to purchase all new equipment when a few upgrade options may be both acceptable and economical. There is always more than one option!

Once you have a comprehensive list of what is available, compare that list with any organisational guidelines and policies that are in place. Many large organisations and government departments have set criteria for purchasing equipment. It's necessary to familiarise yourself with those guidelines before making any recommendations or purchases. There may



be organisation guidelines on the minimum standards required for equipment. Those standards might relate to:

- international or industry standards
- supplier restrictions, approved suppliers or other requirements
- purchasing guidelines (there may be different guidelines depending on the amount of money to be spent)
- minimum warranties and/or guarantees
- support levels required
- how often equipment should be automatically reviewed or updated etc.

#### **2.4. Making recommendations**

After reviewing all the information above, you would then make recommendations, or make the purchases.

The important point to note is that if you do not have clearly in mind the equipment and services that you need, it is unlikely that you will make the best choices. In addition you may make the best choices in equipment, etc but there may be organisational reasons why your selection will not be approved.

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Self Check 2

Written Test

Name: \_\_\_\_\_

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

*Instruction:* Answer all the questions listed below, if you have some clarifications- feel free to ask your teacher.

I. Write short answer

1. Determining your needs requirement?

2. List minimum standards required for equipment?

**Note: Satisfactory rating – 2 points**

**Unsatisfactory - below 2 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_



<b>Information Sheet – 3</b>	Submitting technical and user documentation for final approval
------------------------------	--

### 3.1. Standards organizations

#### What are ‘standards organizations’?

**Standards** ensure that levels of quality, safety, reliability and efficiency are incorporated into products and services when they are developed and used. Sometimes if we are disappointed in the quality of a product it is because it was not produced to a recognised standard. Standards organisations, such as **Standards Australia**, develop, monitor and maintain standards in many areas of business and industry.

### 3.2. What is ISO?

ISO stands for the International Organisation for Standardisation. This is a global organisation that produces standards. Members are government bodies, industry associations and private organisations that have an interest in industry standardisation. They reach consensus on standards for industries that meet the needs of both industries and consumers.

The ISO standard IS1590 outlines the way user documentation should be planned. This standard is designed to be part of a contract but there is a new standard (IS18019) that will not have this restriction.

ISO 9000 is a quality management system. Organisations that meet the ISO 9000 standards are entitled to include this standard in their documentation. For example, the Open Training and Education Network, part of the NSW Department of Education and Training, is entitled to display the quality logo accredited by an organisation called Benchmark.

### 3.3. What is IEC?

The International Electrotechnical Commission (IEC) prepares and publishes international standards for all electrical, electronic and related technologies. The IEC often works in conjunction with the ISO to put standards together, particularly standards for the IT industry. ISO user documentation standards were developed in conjunction with the IEC.

### 3.4. What about Standards Australia?

Standards Australia is our organisation for the development of national standards. It has been in existence since 1922 and is a member of ISO and IEC. Members represent groups who have an interest in the development of standards through committees of special interest groups.

Standards Australia has developed its own user documentation standard that is based on the ISO/IEC standard. It is called AS4258. It outlines the processes for creating all forms of user documentation for software and can be used as a contract with external customers or between internal customers.

### 3.5. Reflect

Have you, or anyone you work with, used any of these standards in the production of user documentation? If so, what did you or your colleagues think of the standard?

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Self Check 3

Written Test

Name: \_\_\_\_\_

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

*Instruction:* Answer all the questions listed below, if you have some clarifications- feel free to ask your teacher.

**I. write Short**

**1. What is IEC?**

**2. What about Standards Australia?**

**Note: Satisfactory rating – 1 points**

**Unsatisfactory - below 1 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_





## Information Sheet – 4

## Distributing technical and user documentation

In an IT organization or department, the controlled distribution of documentation is of paramount importance.

### 4.1.1. Levels of security and confidentiality

The inventory record of any document should show the security level.

- **High security — valuable originals, etc**

Some documents in the care of IT must be kept safe, perhaps in their original condition. They may hold trade secrets or confidential information. Some documents are held in a form that is liable to damage and must be kept in a secure area, not to be removed, with even authorised people only able to access copies or images of them.

- **High security — critical information and fragile media**

Original documents that may have a critical value, or be recorded on a fragile medium such as tape, should not be allowed to leave their secure storage place. Only copies should be taken out.

- **Medium security — sensitive and restricted material**

Some records contain sensitive material, and may not be seen by all employees. Each document and each authorised user of a system should be assigned a security level. Unauthorised people can be denied access to the whole system. If a person's security level were lower than the security level of a document or record, access would be denied.

- **Low security — general access required**

Other documents might hold knowledge that is critical to the workings of IT equipment, but copies or images can be freely distributed, so long as the version of the document is clearly marked, and the reader has the necessary authority.



#### 4.2. Hard copy documents

If a document is in hard copy, and the user is authorised to access it, the lender's details can be recorded in a simple database to keep track of it

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## Sample loan database

Item	Restrictions	On loan by	Phone	Date	Return date

### Soft copy documents

Distribution can be made secure and tracked by granting access to only the appropriate documents (by pre-determined levels of security) and by sending documents by email and filing/registering a copy of the email.

If the customer is off site, the email attachment must be in a compatible format. In the case of intranet html documents, usage can be tracked by the number of times that the page has been accessed, and privileges can be allocated of access needs to be restricted.

### Reporting, auditing and archiving documentation

Your manager could ask you for a report on who has been using the technical documents listed in the index or inventory. You may need to show what's been added, what's been deleted, or transferred.

You may be asked to extract from your index or inventory a summary of who has borrowed books, or taken, or even read various documents.

Technical records need regular auditing. You may be called on at intervals to check records and manuals. If so, you would look for items missing, damaged, misplaced, borrowed for too long, or materials that are out of date.

Some documents have to be kept, by law, for a certain amount of time and should be archived. Records or books that have not had any activity for a while can be transferred to archives, freeing up valuable space.

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Self Check 4

Written Test

Name: \_\_\_\_\_

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

*Instruction:* Answer all the questions listed below, if you have some clarifications- feel free to ask your teacher.

**I. short answer**

1. Write List Levels of security?
2. Define Hard copy documents?

**Note: Satisfactory rating – 1 points**                      **Unsatisfactory - below 1 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_



## List of Reference Materials

1. **BOOKS**
2. <https://training.gov.au/Training/Details/ICTSAS506>
3. [web1.keira-h.schools.nsw.edu.au/faculties/IT](http://web1.keira-h.schools.nsw.edu.au/faculties/IT)

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