**ICTSAS432 – Assessment 3 – Final Project**

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| **Qualification Details** | | | |
| **Training Package Code & Title** | **ICT - Information and Communications Technology** | | |
| **Qualification National Code & Title** | **ICT40120 - Certificate IV in Information Technology** | **State code:** | **BFF9** |
| **Cluster** | | | |
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| **Units of Competency (UoC) detailed in this cluster:** | | | |
| **Unit National Code and Title** | | **State Code:** | |
| ICTSAS432 Identify and resolve client ICT problems | | OBS62 | |
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*Students to sign this document when submitting an assessment*

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| **Assessment description** | Assessment 3 – Final Project | | |
| **Assessment date** | Week 19 | | |
| **Student Name** |  | | |
| **Student ID** |  | | |
| **Student Declaration** | I have read and understand the details of the assessment.  I have been informed of the conditions of the assessment and the appeals process.  I agree to participate in this assessment.  I certify that the attached is my own work. | | |
| **Assessors Name** |  | | |
| **Date Due:** |  | **Date Submitted:** |  |

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| **INFORMATION FOR ASSESSORS** | |
| **Type of Assessment** | Questions, Assessment Tasks |
| **Duration of Assessment** | Week 18 onwards |
| **Location of Assessment** | Classroom |
| **Conditions** | Learners are required to complete each question in the appropriate sections and submit completed document through Blackboard. |
| **Elements and Criteria** | As listed in the units of competency and verified mapping documents. |
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| **INFORMATION FOR STUDENTS** | |
| Purpose of Assessment | This assessment evaluates your knowledge and understanding required to:   * Choose the most appropriate fault-finding method * Analyse the problem to be solved * Identify a solution and rectify the problem * Resolve problems using tools * Test system and complete documentation |
| Allowable materials | Weekly Readings, Class notes, Weekly Activities |
| Required resources | Computer with:   * Computer operating system; * Internet Access; * Word processing software; * Access to online learning system; |
| Assessment Presentation and Submission | For this assessment, you must read and attempt all activities and tasks in this assessment and submit any documentation as per requirements outlined in the assessment instructions.  Use of research tools and peers in formulating answers are acceptable – but work submitted must be student’s own work.  Final project documentation is to be uploaded to the appropriate area in the Blackboard course created for this class.  If you are marked as NYS (Not Yet Satisfactory) on your first attempt, you will be provided with another opportunity to re-attempt the assessment at the discretion of the lecturer. |
| Reasonable adjustment | In some circumstances, adjustments to assessments may be made for you.  See the DAP for more information |
| Project contents | This assessment consists of a series of activities below, all of which you must attempt. |

**ASSESSMENT INSTRUCTIONS**

* Complete each question in the appropriate sections below.
* This work is to be done individually.

As an IT support technician for a small business, a software development company called CITEMS, you will be required to trouble shoot and repair both computers and operating systems

Instructions in how to identify and resolve problems with the Windows operating system is provided in class.

At least one virtual machine {VM} running a helpdesk system will be made available in class for your reference.

Assessment 3 focuses on trouble shooting an operating system twice, once with a hardware PC and once with a VM, to identify and resolve problems with the operating system.

1. A PC with faulty hardware and operating system, with three errors, that will be supplied in class.

2. A VM running a faulty Windows 10 installation, with 10 errors, that will be supplied in class.

The maintenance report functions of the assessment are performed by completing:

1. Two problem resolution forms, one for the PC, one for the VM.
2. Feedback form.

The supplied problem resolution form needs to be completed with both enough information and extra fields added as required for both the faulty PC and faulty VM. The problem resolution form will be discussed in class.

You create your own feedback form to evaluate the problem-solving tasks, and the specification for this feedback form will be discussed in class.

You will create your own document for the four parts of this assessment, the document needs to be logically structured in Parts A to D. The portfolio structure will be discussed in class.

The following questions will assess your understanding of some key concepts necessary to successfully complete the tasks assigned to you.

**To complete this assessment the student will need both a Virtual Machine that has errors and a real computer that has errors. (This activity will be done twice due to assessment requirements.)**

You have received a call from someone in the finance department about a computer that is having problems. As a tech support officer, you need to resolve the problems as soon as possible. Because you’re new in your position you need to check how you will fix an issue with your supervisor **before** you attempt to fix the issue.

Before you start to repair the computer, you will need to email the following information to your supervisor. **(Attach copy of email to this document for each repair)**

**Part A**

1. Explain two different processes that you can use to troubleshoot computer problems.
2. The Lecturer will provide an overview of any safety constraints applicable to the physical PC before you begin.
3. Examine the system that needs to be repaired, and document the computers details and specifications, and the issue that the user is having with the computer.
4. Based on the issues identified in Question 2, find three fault finding tools that would help fix this issue. Pick one and explain why this would be the best to help fix this issue.
5. Explain where you would get this fault-finding tool from, and either download or provide the location of the tool.
6. Specify the priorities of the fixes you are applying to both the VM and the physical PC.

**Part B**

Once you have worked out how you will solve the issue, and you have approval to start you can begin to troubleshoot the computer system. **Complete attached Troubleshooting form to assist**.

1. Collect as much information as you can relevant to the issue held with the computer systems, conduct a risk analysis, as well as review the information in the help desk system
2. Analyse the collected information and determine if there is a problem and what the nature of the problem is. **Ensure you mention what the expected system functionality is against the problem.**
3. Determine the specific symptoms of the problem, either hardware, software or peripheral. Does the problem have to be referred to a third party?
4. Identify what legislation, Health and Safety requirements, codes, regulations and standards would relate to your work when fixing this issue.
5. Identify on how you can edit and improve upon the Problem Resolution form, then apply these changes.

**Part C**

When you have your trouble-shooting process decided you can start to resolve the issue.

1. Determine how you will fix the computer and create a backup in case you need to rollback your changes.
2. Test parts of the issue until you have isolated the problem. Test until errors are all fixed.
3. Fix the issue that has been identified. Store and Dispose of used components.
4. Create a list of possible causes that may be the reason for this issue.

**Part D**

When you have finished fixing the problem with the computer, you need to test to ensure that the problem is really fixed.

1. Test both the Physical host and the VM to ensure that the problems have been solved and record the results.
2. Identify and implement preventative measures to support ongoing maintenance strategies.
3. **Complete the problem resolution forms** and submit to your supervisor to be included in the knowledge base of computer issues.

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| **During the demonstration of skills, did the learner satisfactorily do the following?** | **Yes/No** | **Comments** |
| Question 1 |  |  |
| Question 2 |  |  |
| Question 3 |  |  |
| Question 4 |  |  |
| Question 5 |  |  |
| Question 6 |  |  |
| Question 7 |  |  |
| Question 8 |  |  |
| Question 9 |  |  |
| Question 10 |  |  |
| Question 11 |  |  |
| Question 12 |  |  |
| Question 13 |  |  |
| Question 14 |  |  |
| Question 15 |  |  |
| Question 16 |  |  |
| Question 17 |  |  |
| Question 18 |  |  |

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| **Assessor Feedback** | | |
| **Assessment Decision** | ☐ Satisfactory | ☐ Not Yet Satisfactory |

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| **Is student eligible for reassessment (Re-sit)?** | No | Yes | **Reassessment Date:** |  |

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| **Feedback to student** |
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| **Feedback from student** |
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| **Student’s signature:**  *(Once feedback has**been**provided)* |  | **Date:** |  |
| **Assessor’s signature:**  *(Once feedback has**been**provided)* |  | **Date:** |  |