LEARNER ASSESSMENT SUBMISSION FRONT SHEET

Learner Name	Illia Slanina
Assessor Name	Neil Wickham

Unit	14 - Installing and Maintaining Computer Hardware
Assignment Title	3 - Repair, Upgrade and Review

My Literacy Targets

extracting text

Listening

Read

Write

Spell

Grammar

Punctuate

My Numeracy Targets

Finding parts

Not visited Fractions

Submission Declaration

I certify that the evidence submitted for this assignment is my own. I have clearly referenced any sources and any artificial intelligence (AI) tools used in the work. I understand that false declaration is a form of malpractice.

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Introduction

In this assignment I will fix and upgrade the PC for the Cambria creative trainee to make the computer meet his user requirements. Also I will unpack and connect the graphic tablet which was one of the user requirements and the trainee asked to supply him with it to make other great designs. And I also will backup the important data "new designs which the trainee asked to backup".

IT Company Limited - Job booking sheet		Job Number	0117

Company Name	Cambria Creatives
Contact	Mr N Wickham
Job Description	Repair and Upgrade PC
User Platform	Windows 7
Additional Information	PC has stopped booting up and system won't keep time Upgrade required to speed up system (must be a cost effective solution) Upgrade required to speed up data transfer from USB 3.0 external hard drives Install and configure a graphics tablet. User has important files in a folder called 'New designs'.

TO BE COMPLETED BY TECHNICIAN		Name	Illia Slanina
Computer Identification Number	7PS7D4J		
Faults found	main motherboard power,beeps ,RAM loose, system battery voltage is low		
Fix applied	main energy block wire plugged to the motherboard, changed the time and date, changed the battery, upgraded the ram, upgraded the PCIe Card to USB 3.0		
Hardware installed internally	PCIe Card to USB 3.0, 1 GB Ram card, New CMOS battery.		
Hardware installed externally	Wacom Graphic tablet		
System Tested (Please attach details of test)	test plan attached below		
Comments (record any observations, problems and resolution)	73 % of RAM was used before the upgrade, after upgrade 38% used. Before the upgrade of the USB 3.0 card the transfer rate was 25 Mb/s, after upgrade was 100 Mb/s Battery voltage before the upgrade was 0.18 V, after upgrade: 3.2 V. Customer agreed that the data transfer and multitasking are much faster and better than it was before the upgrade. Customer confirm that the time and data are fixed and the booting up problem is fixed as well.		

Date	12/04/2024	Time Started	9:30	Time Finished	

Technician Signature	22116081@cambria.ac.uk
Customer Signature	N.Wickham

Completed Test Plan (copied and pasted from U14_A2 and fully completed)

Name of Technician:	Illia Slanina		System ID	7PS7D4J	Date	15.03.2024
Brief description of work to be carried out	- Fix boot up problems and system time issue - upgrade RAM - Install USB 3.0 PCIe card - Install new graphics tablet					

Test No.	What is being tested	How it is being tested	Expected Result	Actual Result	Comments
1	Boot up problems fixed	Switch on after diagnosis and fix	System powers up to log in screen	Boot up problems fixed and everything work good	Plugged the main energy wire to the motherboard. fixed the ram Loose and changed the bios battery
2	System keeps time	Set correct time in system set-up Log in check time is still correct Shutdown, remove power source and residual current by holding in power button for 10 seconds Reboot and login	Time is correct	time is correct	Changed the time and data in the BIOS to the correct ones

3	RAM upgrade (to improve multi-tasking capabilities)	Benchmark RAM usage in Task Manager before upgrading Check additional RAM has been recognised in system set-up Log in and stress test by opening up several applications Check RAM usage in Task Manager has improved on initial benchmark testing	Additional RAM is recognised Noticeable improvement in multi-tasking capabilities Percentage of RAM usage has decreased	Ram is recognised Noticeable improvement in multi-tasking capabilities Percentage of RAM usage has decreased	Checked the physical memory use in the task manager and percentage of use the memory is half reduced.
4	USB 3.0 upgrade (to improve data transfer speeds to external USB 3.0 storage devices)	Benchmark speed of data transfer from external USB 3.0 storage devices to system via USB 2.0 ports Check PCIe card has been recognised in system set-up Log in, check device has been recognised in device manager and drivers are installed Check data transfer speed from USB 3.0 devices to system via USB 3.0 ports	PCIe card is recognised Noticeable improvement in data transfer speeds	PCIe card is recognised Noticeable improvement in data transfer speeds	installed drivers for the PCIe card and tested the transfer speed which is much better than it was
5	Graphics tablet is installed to user requirements	Use a drawing program to create drawings	Drawings can be created	Drawings can be created	Tested the tablet by creating some drawings, work well.

Review
The system is much faster than it was and customer approved changes which were made meeting the user requirements and the purpose of them. We did the benchmark test of RAM and the test of transferring data over to the external drive. The test showed the speed of multitasking 2 times better than it was and the transferring data is like 5 times better. We also connected the external device graphic tablet and configured it for the left hand person and tested it . We have put the paint shortcut as a customer asked us to do this. Customers approved that everything is fixed and upgraded. Also we backed up important data of the customer to the external flash drive to ensure the data is safe. The constraints were with drivers, there was a problem with driver installation so it took more time than expected. Also we met a constraint with our skills and knowledge, and that affected the time of fixing the PC and took longer than expected. For further improvement I would recommend doing revision tasks on different components and more practical tasks in computer fixing.