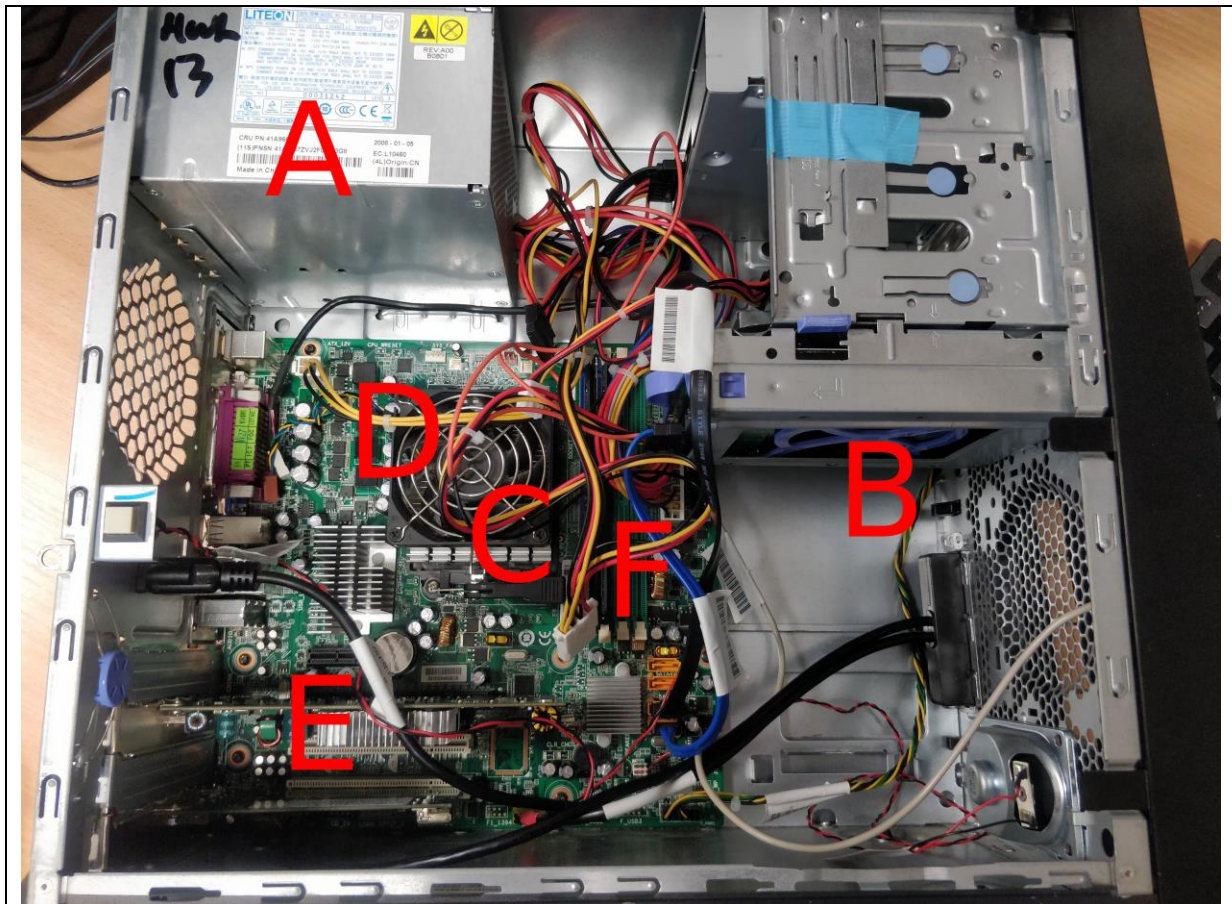


Practical 1
Computer Hardware Research

Part A

Objective: Name and describe each component



Label	Name each component	Description
A	Power supply	supplies power to all the parts of the pc
B	Hard drive	Where all data is stored for pc
C	CPU	brain of the computer, process all of the data
D	CPU fan	Makes sure the CPU doesn't over heat
E	GPU	it processes graphical information and assists in things like textures, geometry and shading
F	RAM	its stores data in it that must can be retrieved quickly, but is what is temporarily stored

Practical 1

Computer Hardware Research

Part B

Objective

Compare a pre-assembled system and the components that could be assembled to build a comparable system. After completing this practical, you should be able to:

- Identify the components of a pre-assembled system
- Locate prices for components needed to assemble a comparable system
- Compare the cost of a pre-assembled system and a self-assembled system.

If you can't find exact match for components, find the closest possible substitute. Use the Internet and available computer-related publications as your sources for information.

Examples of websites for computer parts www.komplett.ie, www.dell.ie, www.custompc.ie, www.amazon.de

MAKE SURE TO INCLUDE VALID LINKS TO WEB REFERENCES

	Pre-Assembled Computer Package	Computer Package Components
CPU	Intel Core i5-1135G7	AMD Ryzen 5 5600X Processor
Storage / Memory		
RAM	8 GB DDR4 (2666 MHz)	Corsair Vengeance LPX 16 GB (2 x 8 GB) DDR4 3200 MHz
Hard Drive	512GB SSD + 1TB HDD	Crucial MX500 500 GB + Seagate BarraCuda 2TB Internal Hard Drive HDD
Input/Output		
Keyboard	Dell Wireless Keyboard	Kensington Keyboard - wired keyboard for PC
Pointing Device	Mouse-KM636	Kensington Keyboard - wired keyboard for PC
Monitor	23.8-inch FHD (1920 x 1080) Anti-Glare Narrow Border Infinity Non - Touch Display	Acer SB241Ybi 24 inch Full HD Monitor
Speakers	Not specified but are included in all in one	Sony MDR-ZX110 Overhead Headphones
Network Adapter	Comes with wifi, so must have wifi card	Ubit WiFi Card, AC 1200Mbps Bluetooth Wireless
Bundled Software (Including Operating System)	Windows 11 home	windows 10
Total Cost	799 + delivery (estimate about 50)	574.82

Practical 1

Computer Hardware Research

Part C

Objective

You have been asked by a family friend to assist them with a computer purchase. They're unfamiliar with technology and the terms used and have presented you with two alternatives machine choices. They would like to be able to write word documents, surf internet and play Minecraft © Mojang and Half-Life © Valve Software. They are considering playing Fortnite but are not sure yet, as it depends on machine cost and if they can extract some money from their Bitcoin wallet.

Compare Personal Computer Option A and B in relation to each of the side headings and recommend a system and any alterations.

	Personal Computer Option A	Personal Computer Option B
CPU	2.2 GHz Intel Celeron 450	3.2 GHz Intel Core i5
Memory		
Cache	512 KB Cache	4 MB Cache
RAM	4 GB RAM	8 GB RAM
Hard Drive	320 GB Hard Drive	1 TB Hard Drive
CD-ROM/DVD	DVD+/-RW drive	DVD+/-RW drive
Input/Output		
Keyboard	USB multifunction keyboard	wireless multifunction keyboard
Pointing Device	USB optical mouse	wireless optical mouse
Screen	20" HD flatscreen monitor	25" HD flatscreen monitor
Speakers	Multimedia Speaker System	Dolby Surround Sound Speakers
Network Adapter	Integrated 10/100/1000 Ethernet	Integrated 10/100/1000 Ethernet

Recommendations

I Recommend option B as this option in general is just more future proof as it has more ram, better cpu and more convenient inputs and outputs. The ram option in A is not optimal as it is below the general 8gb standard for gaming. Even if they could run what they wanted in the moment this would have to be upgraded not long after to keep up with the times. In general option B is very inconvenient for the user also due to the capacity of the storage which would most likely run out very quickly if they want to do any gaming on it. Which is why I recommend option B as I feel this is the safest option for the user as they wont feel the need to upgrade for a longer time and also it is the more optimal option for the purposes they state above.

Practical 1

Computer Hardware Research

Your Recommend System

	Personal Computer Recommendation
CPU	ryzen 7 2600x
Memory	
RAM	vengence 2 x 8gb (3600mhz)
Hard Drive	2tb barccuda
SSD Drive	512gb ssd
Input/Output	
Keyboard	corsair k55 RGB membrane keyboard
Pointing Device	Logitech G502 HERO High Performance Wired Gaming Mouse
Screen	Acer Nitro VG271UPbmiipfx 27 inch Quad HD Gaming Monitor (IPS Panel, FreeSync, 144Hz, 1ms, HDR 400, DP, HDMI, Black/Blue)
Speakers	no speaker
Network Adapter	built in wifi to motherboard
GPU	RTX 2060 super

Hand up this practical report at the end of session and ensure it has been checked

Student Name	Joshua Boyce Hyland	Student Number	C00270917
Date	20/09/2022	Checked	
Group	A / B		