ICD2O Computer Hardware Selection Assignment
Three-Tier System Recommendation

Assignment Overview

Imagine this: someone you know has asked for your expert advice on what computer to buy. They trust your tech knowledge and want you to help them make the perfect choice! You will be assigned a specific scenario with real-world user needs and budget constraints, and your mission is to recommend three different computer systems at three price points (Bronze, Silver, and Gold tiers) that will make your person absolutely happy with their purchase.

Your challenge is to research, compare, and justify three complete computer systems that would be ideal for real people in your scenario, while showing off your understanding of what makes computers tick under the hood.

Time Allocation: You have one week to become the computer expert your person needs!

Scenarios and Budget Tiers

For your assigned scenario, you will research and present three different computer systems that represent smart buying at different price levels:

- **Bronze Tier:** The smart budget choice that gets the job done without breaking the bank

- **Silver Tier:** The sweet spot with solid performance and nice features that most people love

- **Gold Tier:** The premium powerhouse with top performance and all the bells and whistles

You will be assigned ONE of these real-world scenarios with their corresponding budget tiers. Each system must stay within its designated budget tier, including the 13% Ontario HST (because taxes are always part of real life).

- **Student starting college or university ($800, $1,350, $1,750)**

- **Grandparent ($500, $850, $1,100)**

- **Family looking for a computer ($750, $1,250, $1,650)**

- **Business Professional ($900, $1,500, $1,950)**

- **Gamer in high school ($1,100, $1,800, $2,350)**

Research Requirements

System Requirements

Here are the rules of the game to keep things fair and realistic:

- Pre-packaged systems only (no building your own custom rig)

- No refurbished or open-box systems (we want fresh, new computers)

- Sales prices are totally acceptable (who does not love a good deal?)

- Must use Canadian retailers and pricing (we live in Canada, after all)

- All prices must include Ontario HST (13%) because that is how real shopping works

Hardware Components Focus

Your analysis must dig deep into the four major computer hardware components that actually make a difference:

- **CPU (Processor):** The brain of the computer - model, performance, clock speed

- **Memory (RAM):** The computer's working memory - capacity, type

- **Storage:** Where everything gets saved - type (SSD/HDD), capacity, speed

- **GPU (Graphics):** What makes visuals happen - integrated vs. dedicated, performance level

Review and Comparison Requirements

To make the best recommendations, you need to do your homework like a pro:

- Use professional tech review sources for comparisons (the experts who test this stuff for a living)

- Merchant reviews do not count as valid sources (random customer opinions are not professional analysis)

- Include comparison reviews between similar systems (head-to-head battles are the best)

- Cite all sources properly in your references (give credit where credit is due)

Deliverable: PowerPoint Presentation

Your presentation needs to tell the complete story and convince your person that you have found their perfect computers. Include these slides:

1. **Title Slide** - Include your assigned scenario and the three budget tiers (make a great first impression)

2. **User Needs Analysis** - Paint a clear picture of what your person actually needs to accomplish (word processing, web browsing, gaming, photo editing, video calls with family, etc.)

3. **Hardware Requirements** - Connect the dots between their needs and the tech specs that make it happen (like "Large storage capacity to store thousands of family photos and videos" or "Dedicated graphics card for smooth gaming performance")

4. **Bronze Tier System** - Present your budget-smart choice including:

   - Complete system specifications (CPU, RAM, Storage, GPU)
   - Why this system perfectly meets their basic needs
   - Price (including 13% HST)
   - Screenshot of the system listing (proof that it exists and costs what you say)

5. **Silver Tier System** - Present your mid-range champion with the same details as Bronze

6. **Gold Tier System** - Present your premium powerhouse with the same details as Bronze

7. **Tier Comparison** - Show why each tier makes sense:

   - How are they different in terms of performance and features?
   - What cool additional capabilities does each higher tier provide?
   - How do the price differences actually justify the performance upgrades?

8. **Justification for Each Choice** - This is where you prove you know your stuff! For each tier, explain:

   - Why you selected this specific system over all the others
   - What reviews and comparisons convinced you this was the winner
   - How it delivers the best value for that budget and performance level

9. **References** - Include all sources used for reviews, comparisons, and pricing (show your research)

Marking Scheme Breakdown

Criteria	Points
Understanding of Hardware Components	25%
User Needs Assessment	25%
Justification of Choices (All Three Tiers)	30%
Communication and Presentation Quality	20%

Marking Rubric

Criteria	Level 1	Level 2	Level 3	Level 4
Understanding of Hardware Components	Shows limited understanding of computer hardware; presentation contains several mistakes in explaining CPU, RAM, storage, and GPU components.	Demonstrates good grasp of computer hardware concepts but makes a few mistakes when explaining the major components and their roles.	Displays solid understanding of CPU, RAM, storage, and GPU components and clearly explains their impact on system performance.	Shows exceptional and thorough understanding of all hardware components and expertly explains how they work together to create great performance.
User Needs Assessment	Provides basic description of user needs and computer requirements for the assigned scenario.	Shows decent understanding of user needs and computer requirements with some connection to the scenario.	Provides clear and detailed descriptions of user needs and computer requirements with strong connections to the assigned scenario.	Demonstrates exceptional insight into user needs and computer requirements with thorough understanding of all scenario implications and real-world applications.
Justification of Choices (All Three Tiers)	Presents choices for all three tiers but provides weak justification with minimal use of reviews or comparisons to support decisions.	Provides choices for all tiers with reasonable justification and some evidence from reviews and comparisons, but connections could be stronger.	All three tier choices are backed by solid evidence from reviews and comparisons with good justification for each tier's price-to-performance value.	Justifies all three tier choices with exceptional understanding and detailed explanations. Excellent use of multiple professional reviews and comparisons as evidence. Shows sophisticated understanding of value at each price point.
Communication and Presentation Quality	Minimal effort put into organization and visual design. Some references provided but screenshots are missing or poor quality.	Shows some organization and provides adequate references. Basic visual presentation with decent screenshots.	Well-organized and visually appealing presentation with appropriate references and good quality screenshots throughout.	Highly professional and engaging presentation with comprehensive references, excellent visual design, and high-quality screenshots that enhance the overall message.

Success Tips

- **Start with understanding your person:** Really think about what your assigned scenario needs before diving into computer specs

- **Master the big four components:** CPU, RAM, Storage, GPU - these determine whether someone will love or hate their computer

- **Find the real experts:** Professional tech reviewers test dozens of computers and know what actually works well

- **Justify every single choice:** Do not just say "this computer is good" - explain exactly WHY it is the perfect choice for this tier and scenario

- **Show the value ladder:** Make it clear why someone might want to spend more for the Silver or Gold tier options

- **Respect the budget limits:** Real people have real budgets, so make sure your recommendations include that 13% HST and stay within the limits

- **Make it look professional:** A great presentation shows you take your recommendations seriously and helps your person trust your advice

This assignment challenges you to combine technical knowledge, research skills, critical thinking, and professional communication to solve real-world problems that actually matter to people.