

**CN-101****LRS Worksheet: Computer Hardware Research and Builds**

---

**Worksheet Instructions**

---

The purpose of this Assignment is for you, the student, to apply your knowledge of hardware that you learn in the course by conducting research of hardware and platforms. You will effectively shop

***Part 1 – OEM System Research***

The purpose of this worksheet is to provide the requirements for this LRS Assignment, in learning how to research hardware to build functional systems. You will conduct research for four system solutions:

- Laptop for a Senior Executive
- Server for a Small Business
- Desktop for a Mechanical Drafter
- Budget laptop for a college student under \$1000

Using different vendors, such as New Egg, Insight, Tiger Direct or Best Buy, you will research three candidate systems for each solution. You will then prioritize each system and recommend one for purchase, providing justification why that particular system is the best one. Complete a table like this one for each solution and then write a narrative of no less than 300 words discussing your findings, what solution you would select and why.

At least one of your vendors must be a classic brick-and-mortar store, such as Best Buy, Sam's Club, or Office Depot. Photographic proof required of visit to store.

| Component        | Model #1 | Model #2 | Model #3 |
|------------------|----------|----------|----------|
| Machine Model    |          |          |          |
| CPU              |          |          |          |
| RAM              |          |          |          |
| Hard Drive       |          |          |          |
| Optical Drive    |          |          |          |
| Display          |          |          |          |
| Graphics Adapter |          |          |          |
| Operating System |          |          |          |
| System Cost      |          |          |          |

***Part 2 – System Build Research***

For this part of the LRS Assignment, you will be pricing out components for two different build solutions.

- Budget Gaming System under \$800
- All-Out High Performance Gaming System with no cost limit

Using different vendor websites, such as New Egg, Insight, or Tiger Direct, you will research appropriate parts and complete a specification sheet for each solution. The parts must be properly compatible to build a functional system. Complete a table like the one below for each solution and then write a narrative of no less than 300 words discussing your findings, what solution you would select and why.

| Component        | Model | Vendor | Price |
|------------------|-------|--------|-------|
| Motherboard      |       |        |       |
| CPU              |       |        |       |
| RAM              |       |        |       |
| Hard Drive       |       |        |       |
| Optical Drive    |       |        |       |
| Power Supply     |       |        |       |
| Case             |       |        |       |
| Mouse            |       |        |       |
| Keyboard         |       |        |       |
| Display          |       |        |       |
| Graphics Adapter |       |        |       |
| Operating System |       |        |       |

### ***Part 3 – Research Findings***

For the last part of this assignment, you will write a brief essay of 650 words

- 1) What was the biggest challenge that you encountered during this exercise?
- 2) What is the most important thing you learned during this exercise?
- 3) In your opinion, which is better, buy a computer or build one? Support your answer.

Write the paper in APA format wherever possible and follow good standards for academic writing.

---

### **Deliverable**

---

To complete this exercise, you will need to prepare the following components to submit your instructor for grading.

| Assignment Component   | Points     |
|--|------------|
| <b>Part 1 Comparison Table</b> – Three models for each solution, one model from a brick and mortar store (photos required in submission) | 30         |
| <b>Part 1 Narrative</b> – 300 words, APA formatted   | 10         |
| <b>Part 2 Comparison Table</b> – Two builds  | 30         |
| <b>Part 2 Narrative</b> – 300 words, APA formatted   | 10         |
| <b>Part 3 Research Findings</b> – 650 words, APA formatted   | 20         |
| <b>Total</b>   | <b>100</b> |