Name: _____ Date: _____ Class: _____

Lab 3.5.2 – PC Builder Challenge

Guiding Question: How do IT professionals choose hardware components for a computer?

Lab Background and Context

Background: In previous lessons you have learned about PC components. In this lesson, you have learned about prioritizing components to fit the purpose of the computer. Now you will combine your knowledge and apply it to scenarios based on real use-cases and real hardware. You will go through specific scenarios and choose the best components that fit within the budget. Then you will install the components and turn the power on to see what happens.

Range Instructions

- Navigate to https://portal.cyber.org.
- Click *Login* and enter the credentials provided by your teacher.
- Under Cyber Range, click *Access*, then select your classroom.
- Click on *Launch* for the Ubuntu Linux.
- Once the status of the launched VM changes to available, click *Access*.

PC Builder Challenge

1. Connect to the Ubuntu machine.

2. Click on the Firefox icon to open the browser. Using the address bar at the top of Firefox, navigate to localhost/PC_Builder to load the scenario.

3. Once loaded, pick a scenario, read the description, and start choosing PC components.

4. What scenario did you choose and what components do you plan to prioritize?

5. How did the budget affect your decisions? Did you have to compromise anywhere?

6. Once you have selected your components, click the "Go to Build Page" button.

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7. On the build page, drag and drop the components from the left side of the window to the build area in the middle. If you change your mind, you can click the "Back to Part Selection" button at the top of the page to change components.

8. Once you have installed all the necessary components, click "Power On" in the top right of the window. If there are any issues with booting the computer, read the message and then change the indicated components. If the computer boots without issue, you will see a score that is based on the performance of the components and how well you were able to stick to the budget.

9. If your first build failed the compatibility check, what was the issue and how did you fix it? If your build passed on the first try, identify one change that would result in the components no longer being compatible and explain why.

10. Repeat the lab with a new scenario.

11. Which scenario did you pick this time?

12. How did the budget affect your decisions? Did you have to compromise anywhere?

13. If your second build failed the compatibility check, what was the issue and how did you fix it? If your build passed on the first try, identify one change that would result in the components no longer being compatible and explain why.

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