**Computer Assembly and Preventive Maintenance**

Learning the different hardware parts of a computer, such as the motherboard, CPU, hard drive, etc., provides hands-on familiarity with each component, improving one’s understanding of the functionality and relationship between multiple computer parts. Moreover, this will help sharpen one’s ability to troubleshoot and perform updates. In terms of troubleshooting, one would be able to facilitate the diagnosis of hardware problems more efficiently and securely – given that they have mastered assembling a computer. There are various uses for a computer depending on the user’s needs, such as studying, gaming, programming, editing, etc., hence knowing and differentiating the specs needed for a specific component is beneficial for the user.

Preventive maintenance is another essential thing to learn about – maintaining the performance of one’s computer can prolong the lifespan of each component. It includes inspecting, cleaning, and replacing worn components, materials, and systems. (Cisco Networking Academy, 2020a). Another benefit of regularly maintaining one’s computers is the performance boost – ensuring that the system operates optimally. Sometimes, system failure occurs in the components, resulting in malfunctions, but by doing regular maintenance, this can be avoided. Another thing to keep in mind is that preventive maintenance is not limited to its external component, but also to the software of a computer – making sure that one’s antivirus is up-to-date will minimize the chances of malware occurring. There are many ways to do regular maintenance, here are some examples:

1. To prevent components from getting damaged by dust, regularly inspecting and clearing air filters will reduce the dust, provide adequate ventilation, and prevent the PC from overheating. Eddie (2017).
2. Make sure to physically clean the exterior and interior of the system.
3. Track and maintain its storage capacity.
4. Update the software, drivers, antivirus, anti-malware software, and operating system regularly.
5. Update the firmware on routers, switches, and firewalls, among other essential hardware parts. Doing these regularly will solve security flaws and boost efficiency.
6. Run routine virus checks to find and eliminate harmful applications.
7. Regularly performing backups on one’s data can help avoid data loss. Consider utilizing cloud-based and local backups. Richards, L. (2024)

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