**Discussion Question: Maintenance Activities**

While your text does not go deeply into system maintenance, it is important to understand the different types of maintenance, and when in a system lifecycle they can occur. Read through the link in the Module 11 Reading for the Four Types of Software Maintenance and **find at least one other resource on the topic. For each of the four, provide at least two examples of the maintenance activities. Once, you've completed that, look at your examples... and consider software you have worked with, and provide an opinion as to signs that would indicate a software application or a system is becoming obsolete.** In your responses to other students, provide feedback on the examples provided. Do they fit the category?

***Before you submit your thread, put your name in the subject line.***

As part of our resources, an article on CAST describes four types of software maintenance. The four mentioned types are corrective, adaptive, perfective, and preventive. In addition to the CAST article, I found one on Zibtek by Cache Merrill, explaining the four main system maintenance types.

According to Merrill (2019),

Corrective software maintenance focuses on fixing issues due to "errors and faults in the design, logic, and code". An example of a maintenance activity for corrective software maintenance is implementing testing practices (Merrill, 2019). Another activity is correcting faulty logic flow (Merrill, 2019).

Adaptive software maintenance focuses on changes and modifications to software because of a platform change, when users "need the product to interface with new hardware or software", and when predetermined defects for customers are discovered (Merrill, 2019). One adaptive software maintenance activity is altering a web application to work with the current web browser version (Merrill, 2019). Another is changing software to follow laws, policies, and rules (Merrill, 2019).

Perfective software maintenance involves "speed optimization, and improvements in user interfaces, software usability, and software performance (Merrill, 2019). Examples of perfective software maintenance activities are enhancing software functionality through new or changing user requirements and modifying a program with a new feature (Merrill, 2019)

Preventive software maintenance involves changing software in a preventive manner (Merrill, 2019). Some activities for preventive software maintenance are updating code documentation, optimizing it, and code reconstruction (Merrill, 2019).

New software can seem exciting, but using it implies that the previous software is obsolete. One of the most apparent signs that software is becoming obsolete is that it is no longer supported. This means that there are no longer updates being made to the software, and it is in the stages of becoming obsolete. Sometimes this happens because the software is outdated or being replaced by another software that is believed to be a better alternative. Software may also not work properly if the hardware interacting with it has been ruled obsolete (Merrill, 2019).

**Reference**

Merrill, C. (2019, April 30). *Understanding Software Maintenance: Perfective, Corrective, & More*. Custom Software Development Insights | Zibtek Blog. https://www.zibtek.com/blog/software-maintenance-understanding-the-4-main-types/

**Assignment Requirements and Grading:**

1. An initial post of approximately 250 words is due by **Thursday, 11:59 p.m., CT**.
2. For the initial post to be considered substantive, it should be at least 250 words in length and fully cover the topics being presented. Single sentence definitions or responses will not be awarded points.
3. Submit your post by clicking on the **Assignment Link** above, then **Create Thread**. You must create a thread in order to view your peers' posts. Tip: Create your post in a Word document and then copy and paste your work into the thread.
4. A minimum of three (3) responses, **to the original threads of other students**, of 100-200 words each are due by **Sunday, 11:59 p.m., CT**.
5. To view the rubric grading criteria, click on the following link: [Discussion Board Grading Rubric.](https://content.bellevue.edu/cst/csd/rubricdbv3.pdf)

**(50 points)**