**Julio Pochet – Module 11.1 Discussion Board**

**Understanding the Four Types of Software Maintenance**

Software maintenance is what keeps an application running smoothly long after its launch. CAST (n.d.) breaks it down into four main types: corrective, adaptive, perfective, and preventive maintenance.

**Corrective maintenance** is all about fixing things that break. This could mean repairing a login system that stops working after an update, fixing a bug that crashes the app, or resolving a database error that slows down performance (CAST, n.d.).

**Adaptive maintenance** comes into play when something around the software changes. For example, updating an app to work with a new operating system, adjusting code when a third-party API changes, or making it compatible with new hardware (CAST, n.d.).

**Perfective maintenance** is more about improving the user experience or adding new features. A few examples are adding a dark mode for better usability, optimizing the code so pages load faster, or removing outdated features that no one uses anymore (Essex & Posey, 2024).

**Preventive maintenance** is like taking steps now to avoid bigger issues later. It could include cleaning up messy, outdated code, performing regular security checks, or updating documentation to make future fixes easier (CAST, n.d.).

Software becomes outdated when it stops getting updates, struggles with modern tools, or needs too many manual fixes to stay functional. For instance, older business systems often don’t work well with newer security measures or hardware, which can slow everything down and create risks.

**References**  
CAST. (n.d.). *The four types of software maintenance & how they help your organization.* CAST Software. <https://www.castsoftware.com/glossary/Four-Types-Of-Software-Maintenance-How-They-Help-Your-Organization-Preventive-Perfective-Adaptive-corrective>

Essex, D., & Posey, B. (2024, May 15). *What is patch management? Lifecycle, benefits and best practices.* TechTarget. <https://www.techtarget.com/searchenterprisedesktop/definition/patch-management>