Tabari Harvey, Module-11 Assignment- Coding Standards, CSD430

Large enterprises or organizations use programming to get ahead in the modern-day business world. Each organization have their own rules when it comes to programming and how the business is run but, coding standards are among the most important. That is mainly due to how these standards are universal through any and everything that uses programming. What this means is that even though every company has their own rules, coding standards are something all companies need to have. These are called coding standards, and these standards are what keep the identity of a company with their specific standards. If developers do not adhere to their company’s standards, their code will not meet the qualifications to advance in the development stage. The purposes of coding standards start with uniformity, which is important because of the different developers working on the same or different projects. Makes things easier for others to continue to work on them, which is when the code is readable. The code maintaining the standard allows the code to be reused and any defects that are not part of the uniformity will be spotted easily. Finally, the code keeping the same standard helps developers new or old maintain efficiency. Coding standards are also sorted into different types, also giving an understanding on what type of standard an organization will use. That can be determined, possibly by their business goals and the products they offer. Code formatting standards make sure code is implemented with consistency. That includes indentation spaces, number of characters per line, and the correct use of braces. Naming conventions are the names that are on the definitions of variable, functions, and classes names. Commenting and documentation standards are guidelines on the way comments and documentation is supposed to be implemented. If the comments and documentation do not meet the standard there will be confusion for employees and leadership. Best practices ensure that the code being made is effective. Code structure standards show how the code is supposed to be organized and, that is through how the project is supposed to be laid out, along with the code being sorted in modules through what the code is about. Finally the security standards makes sure that the code is secured, protected from cross-site scripting and other vulnerabilities. The coding standards are implanted in five different steps. The first is to define the standards and that goes from following the standards from the industry or having custom standards for a project. Next, the standards need to be defined in documentation so that everyone involved with the project creation can read and follow the standards. Tools need to be used to make sure the coding standards are retained. All the people involved with the project should be given training so that they know what the standards are. This training ranges from mentorship, meetings, or peer code reviews. Finally, the standards need to be reviewed and corrected if needed be. This is to make sure the code keeps being maintainable. Coding standards also have languages with their own standards and styles that they follow. HTML and CSS have rules on styling and markups. Pythons’ standards are seen through indentations, the length of the lines and the naming on variables and other specific examples. JavaScript has a rule for the whitespace and the rules on variables and their names. C#, has codes that are on how code is organized and moved around, as well as coding tools that help maintain the standards. As I have explained prior, different industries have standards they must follow or choose to follow. “IEC 62304. International standard for the medical device software lifecycle, including requirements for development, verification, validation and secure coding practices. FDA Premarket Cybersecurity Guidance. Cybersecurity guidance for designing, developing and maintaining medical devices. The guidance includes secure coding practices.” (Garn, 2025) All of these standards are part of the healthcare industry. The finance industry has the standards of NIST Secure Software Development Framework and the OWASP secure coding practices.

Works Cited

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