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WEB 420 – RESTful APIs

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Week 7

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Discussion 7.1 - Semantic Versioning

Semantic Versioning is a versioning system that assigns unique version numbers to software releases based on a set of rules and guidelines. The goal of semantic versioning is to provide a standardized way of indicating the extent to which changes in a software application affect compatibility with other software that depends on it. “A project that uses semantic versioning will advertise a Major, Minor and Patch number for each release. The version string 1.2.3 indicates a major version of 1, a minor version of 2 and a patch number of 3” (Walker, 2021).

The major number is increased when there are incompatible changes made to the software, such as changes that break the API or change the behavior in a significant way. “This should be incremented every time you make a change that would require existing users of your package to update their own work” (Walker, 2021).

The second number is the minor version and it “describes the current functional release of your software” (Walker, 2021). These are added in a backwards-compatible manner so even though the changes might be large or significant, they can still use documents or projects that they have created in the past with this new version.

The third number is the patch number and deals with bug fixes or other minor changes that do not affect compatibility. “Consumers should always be able to update to the latest patch release without hesitation” (Walker, 2021).

Most projects would start with 1.0.0 as they are publishing the first interface and functionality. There are not yet to be any patches so that number would be zero.

The ultimate benefit of semantic versioning is that “by following the semantic versioning rules, developers can help ensure that their software updates are easy to understand and integrate with other software, and avoid introducing unexpected compatibility issues” (Walker, 2021).

References:

Walker, J. (January 22, 2021). What is Semantic Versioning? DevOps > Programming on How-To Geek. Retrieved from: <https://www.howtogeek.com/devops/what-is-semantic-versioning/> on 24 April 2023.