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A Checklist for Requirement Defects Discovery in an Academic Environment

For software projects, the software requirement specification (SRS) serves as the official statement of user need and what the systems developers are expected to implement. Development of the SRS is a critical task as it becomes the basis for all future development. Utilizing a checklist while inspecting documents, helps in locating defects, i.e. any deficiency with a potential of negative affect on the development process, within the documents. [1] Many studies have shown that these checklist based inspections can significantly improve the quality of software artifacts, including the SRS. [2]

However, existing studies have focused on checklist use in commercial projects. The checklists utilized for commercial projects are not suitable for use in an academic environment, because of their size and complexity. This work describes a checklist, specifically developed for use in academic projects that was designed to include items most relevant to student projects. The checklist described, was developed based upon the results of a study conducted using students' submitted SRS from an undergraduate software engineering course. The developed checklist is helping undergraduate students enrolled in a software engineering course to inspect their SRS submitted for student projects and hence contributing to the overall project quality.

References

- [1] Shull, F., Rus, I., and Basili, V. How perspective-based reading can improve requirements inspections. *IEEE Computer* 33(7) (2000), 73_79.
- [2] Travassos, G. H., Shull, F., Fredericks, M., and Basili, V. R. Detecting defects in object-oriented designs: Using reading techniques to in-crease software quality. In *Proceedings of the Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA)* (1999).