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Requirements patterns structure for specifying and reusing software product line requirements (Conference Paper)

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Abstract

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A well-defined structure is essential in all software development, thus providing an avenue for smooth execution of the processes involved during various software development phases. One of the potential benefits provided by a well-defined structure is systematic reuse of software artifacts. Requirements pattern approach provides guidelines and modality that enables a systematic way of specifying and documenting requirements, which in turn supports a systematic reuse. Although there is a great deal of research concerning requirements pattern in the literature, the research focuses are not on requirement engineering (RE) activities of SPLE. In this paper, we proposed a software requirement pattern (SRP) structure based on RePa Requirements Pattern Template, which was adapted to best suit RE activities in SPLE. With this requirement pattern structure, RE activities such as elicitation and identification of common and variable requirements as well as the specification, documentation, and reuse in SPLE could be substantially improved. © 2018 IEEE.

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