

Crosscutting concern domain library listing composition for early aspect discovery

Abstract

Modularization is an essential part of a software program that ensures software maintainability. However, object oriented programs still can't achieve the higher level modularization since it still contain extensive amount of crosscutting concerns. Crosscutting concerns refer to common functionality that does exist in software programs. Separation of concern (SoC) is essential elements of aspect oriented paradigm whereby it has viewed as a way to modularize the existing object oriented programs. Since there are various crosscutting concerns exist, the SoC from base functionality become tedious process. In fact, the process of identifying crosscutting concern for legacy system notably difficult and time consuming. Moreover, crosscutting concern generalization hard to be achieved due to it contain more domain specific concerns. This triggers a need for a literature survey in which it collect and review articles which indicate the usage of crosscutting concerns that exist in software programs in regards of domains. There are five main domains has been specifically retrieved from previous studies. The outcome of the evidence based survey grouped as a domain library which known as Crosscutting Concern Domain Library Listing (CCDLL). CCDLL emphasize on the usage to software practitioner in order to collectively reuse the crosscutting concerns with regards to the domains.

Keyword: Aspect oriented; Crosscutting concern; Domain listing