Some Considerations on UML Class Diagram Formalisation Approaches

Authors : Abdullah A. H. Alzahrani, Majd Zohri Yafi, Fawaz K. Alarfaj
Abstract : Unified Modelling Language (UML) is a software modelling language that is widely used and accepted. One significant drawback, of which, is that the language lacks formality. This makes carrying out any type of rigorous analysis difficult process. Many researchers attempt to introduce their approaches to formalize UML diagrams. However, it is always hard to decide what language and/or approach to use. Therefore, in this paper, we highlight some of the advantages and disadvantages of number of those approaches. We also try to compare different counterpart approaches. In addition, we draw some guidelines to help in choosing the suitable approach. Special concern is given to the formalization of the static aspects of UML shown is class diagrams.