METAMODEL OF DESIGN PATTERNS CATALOG, APPLICATION TO AUTOMATED CODE GENERATION

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Design patterns have been, quickly adopted by the *Object-Oriented* community since the publication of "Design Patterns: Elements of Reusable Object-Oriented Software". They offer highly reusable and high quality Object-Oriented software components which increases productivity and development quality. However, these are at the boundary of programming languages and design models which suffer from a lack of formalism. Therefore their applications should be manually performed.

This research paper describes how an object-oriented model of design patterns catalog (meta-model of design patterns) can be used to represent them formally and be used to automate abstract code generation in different programming languages from design patterns. Abstract code does not make any sense to expert developers, but for the novices it is important to write their own code and understand implementations of the design patterns in different programming languages.