



Pattern-based GUI Generation CASE

Tool

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List of Abbreviations

Computer Aided Software Engineering	CASE
Graphical User Interface	GUI
Computer-Based Information Systems	CBIS
User Interface	UI
User Experience	UX
Windows ,Icons ,Menu ,Pointing Device	WIMP
Software Development Life Cycle	SDLC
Structured Query Language	SQL
Program (or Project) Evaluation and Review Technique	PERT
Computer Aided Design	CAD
Standard Deviation	SD
Design Pattern	DP

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Abstract

In software engineering, a design pattern is a solution for a recurring design problem that can be reused during a specific situation within program design. In using the design pattern, software development process will increase as it offers proven solutions. CASE is the domain of software tools which is mainly used in designing and implementing applications whose main objective is to obtain software free of defects and of high quality. The user interface is one of the most important parts of the system that handles and interacts with the user , Pattern-based GUI Generation CASE Tool is relies on an automatic code generation based on 16 major design patterns for web interface designs forming a pattern language to facilitate the construction and development of web UI/UX ,Thus ,it identifies and resolves problems , shorten the time and reduce effort for the programmers ,The tool was evaluated and showed excellent results in terms of correctness and completeness of the design patterns . It was also evaluated by four groups of programmers and showed a high difference in time reduction compared with other tools and two categories of questions were identified in a questionnaire showed high result in correctness and completeness followed by usability.

Keywords

Design patterns, Computer Aided Software, UI/UX, pattern language.