Annotation

to the thesis entitled

Management ot course assignments in the distance learning system ARCADE (Architecture for Reusable Courseware, Authoring and Delivery)

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Key words: Internet, distance learning, assignment, management of course assignments, distribution of course assignments, calendar events, assignment proposals, user requirements, analysis, design, implementation, testing, UML (Unified Modelling Language), Unified Software Development Process.

Subject: An up-to-date platform for distance learning is realized in the project ARCADE (Architecture for Reusable Courseware Authoring and Delivery), that is being developed within the Sofia University St. Kliment Ohridski, Faculty of Mathematics and Informatics, Dep. of IT. The basic functions of the system are management of courses, curriculum, tests and assignments, user communication. The accent of the thesis is on the assignment module of ARCADE. The goal of the work is elaboration and development of additional functionalities for the assignment module.

A small research on some similar platforms – WebCT, WebAssign, Moodle – is made in the work. The accent of the research is on their assignment modules.

The result of the thesis is three new additional functionalities in the assignment module of ARCADE. The first one is a new way of ditribution of the assignments. The students have the ability to choose the assignments for the courses they are enrolled. They have to take in consideration the limits that the assignments have – deadline, maximum number of students for one assignment and so on. The second functionality is management of calendar events that describes the process of distance learning – assigning assignments, tests and so on. The last functionality is the management of assignment proposals. The student can propose assignments for the courses they are enrolled and the instructors can approve and reject these proposals.

The Unified Software Development Process and the UML are used for the product development. The steps that the development went through are:

User requirements capture: This is the first step. Here the future product is considered from the viewpoint of the user. The basic functionality is defined.

Analysis: Here the described user requirements from the previous step are analised and structured in details and the architecture of the product is outlined.

Design: Here a detailed description ot the product architecture is made in conformity with the chosen program language, development tehnologies, operating system, data management, user interface, etc. The Java language is used for the business logic of the product, Jakarta-Tomcat – for a Web server, and MySQL – for database management system.

Implementation: Here the product is implemented in components – source code, scripts, classes, executables etc.

Testing: This is the last step in the product development. Here the implementation result is checked. Here the product quality is estimated and compared to the user requirements from the first phase.

All functionality planned for the assignment module is implemented and works in ARCADE. The goals of the thesis are achieved. That doesn't mean that the system will stop evolving. There are given some suggestions and ideas for the future development of the assignment module of ARCADE.