English Course on Moodle

Architecture/Design Document

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Change History

Version: 1.0

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Description of Change: Created document

Version: 2.0

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Description of Change: Physical View and Use Case View

1 Introduction

This document is the architecture and design for the "English Course" application being developed for G. Marconi VR high school students. The site includes lessons and quizzes that will help the student to review English grammar.

For this application the major stakeholders are:

- Users and the customer – They want the architecture to function properly without errors of any kind and to be easy to understand and easy to use.
- Developers – They want the architecture to function properly without errors of any kind and to be easy to understand and easy to use.
- Project Manager –He wants to divide the work for the realization of the online course in an equitable maiera among the various members of the group, both in size and difficulty. He also wants each member of the group to carry out an activity, for the realization of the project, which is related to the specific skills and competences of each person.
- Maintenance Programmers – they want assurance that the system will be easy to evolve and maintain on into the future.

Here the architecture of the "English Course" application is described from 4 different perspectives:

1. Logical View – the main components of the project are the realization of the lesson with the related final questions and the realization of the final quizzes present every time a lesson ends. The lessons contain the definition of a certain grammatical rule with some examples and some training questions; instead the final quizzes are quizzes that act as a check if the student really understood what was explained in the lessons, these quizzes have a score.
2. Process View – to make the main components we decided to divide the work and organize ourselves on the most important ones or to do first. In fact, we decided to do the lessons first, then the final quizzes and finally we decided to implement the lessons with training questions. In addition, we have also prepared feedback that users can fill out.
3. Development View – we used moodlecloud, to prepare all the lessons and all the final quizzes, which is an online platform for online learning and therefore widely used by students and professors.
4. Use Case View – the objectives of the realization of this online course are the study of the main English grammar rules and that it is easily usable by all users, who can be both students and teachers.

2 Design Goals

The design priorities for the "English Course" application are:

- The design should minimize complexity and development effort of all team members.
- The design should reduce the complexity of use by all users who can access the course, who can be both students and professors and therefore our goal is to reduce the difficulty to be easily usable even by those who are not very familiar with the use of moodlecloud.

3 System Behavior

The use case view is used to both drive the design phase and validate the output of the design phase. The architecture description presented here starts with a review of the expect system behavior in order to set the stage for the architecture description that follows. For a more detailed account of software requirements, see the requirements document.

4 Logical View

The logical view describes the main functional components of the system. This includes modules, the static relationships between modules, and their dynamic patterns of interaction.

In this section the modules of the system are first expressed in terms of high level components (architecture) and progressively refined into more detailed components and eventually classes with specific attributes and operations.

4.1 High-Level Design (Architecture)

The high-level view or architecture consists of four major components:
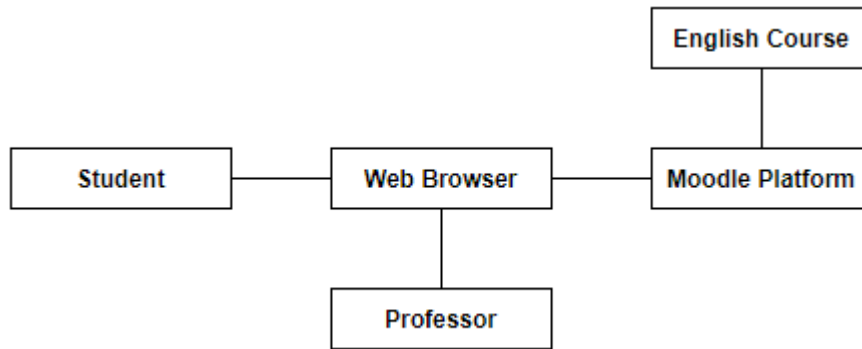
Example:

System Architecture

- The **Student** account allows the student to log in through their credentials to the site to learn lessons and take quizzes.
- The **Web Browser** is the installed program required to access online resources, of course there is also an need for an internet connection.
- The **Moodle Platform** colt is the service that allows teachers to host lessons and quizzes in their courses. Through moodle you can access your course.
- The **English Course** is accessible through the moodle platform both by professors and students by username and password.

4.2 Mid-Level Design

The course is based on the tools made available by the moodle platform, to find out more research information about the platform on the net. The course was specifically tailored for the students and teachers who will use it.

4.3 Detailed Class Design

Skills were used to distinguish permits at various levels. In Moodle, a competency describes the level of understanding or proficiency of a learner in a certain subject related skill. A competency framework is an organised collection of competencies.

5 Process View

The control is managed by moodle which is an online platform that can be used to make tests or lessons. Obviously, all data are stored in a database managed by the platform.

6 Physical View

All the main components such as courses, lessons, users, administrators and supervisors will be introduced in the database of the MoodleCloud platform.

7 Use Case View