Abstract

The goal of my thesis is to build a database for online quiz generation and to provide a study aid for Programming Languages and Advanced Programming Languages coursework for San Diego State University. Students can access the database of questions through a mobile application on various mobile platforms. The questions are organized into different categories based on the different programming languages concept and methodologies. Users can pick the concept on which they want to be tested. They can also select the number of questions they want to be asked from that concept. The quiz can have multiple choice questions as well as user input questions. The quiz database has a number of templated questions for various categories. The templated questions are generated dynamically each time a user takes the quiz. So, if many users are taking the quiz simultaneously, each user would be presented with a different set of questions. After the user has answered all the questions, the user is presented with the Answer sheet. The Answer sheet contains statistics like how many questions were answered correctly and how many were answered incorrectly. It also tells the correct answer for all the questions and provide an explanation for important questions. Once the user has tested one concept, he can either exit from the quiz or go back and take another quiz. The questions are stored in a SQLite database which the instructor can further extend by adding more concepts and questions.

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