AdaptQ: Quiz of the Day

A quiz application that provides adaptive feedback and recommendations

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**ABSTRACT**

In this paper, we describe an adaptive web application that implements a Quiz of the Day system. Each day, the users are sent a Java quiz question for the day. Their responses are recorded and then graded accordingly. Based on the response generated by the students, the following quiz of the day questions are adapted the knowledge of the users. formating guidelines for ACM SIG Proceedings.

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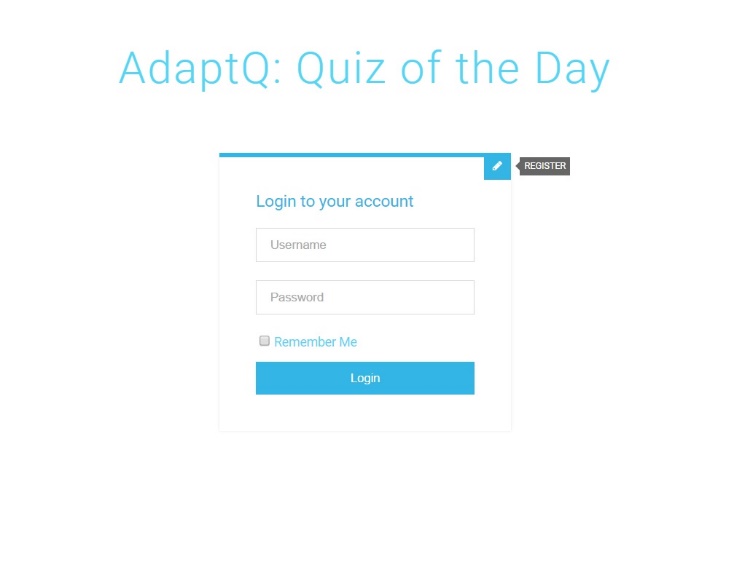
Adaptive systems, user profiling, java concepts, recommendation, interactive visualization.

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# ADAPTQ: THE QUIZ APPLICATION

The Internet is home to a diverse set of users, each with different needs and objectives. The goal of developing an adaptive system is to cater to the needs of every user individually and personalize the experience of browsing the Internet [1][2]. We present a quiz application called ‘AdaptQ’, that allows users (in this case, students) to attempt a daily quiz question based on Java concepts. The workflow of the application is as follows. The professor conducting the class drafts a question and sends it out the students enrolled in his class. This triggers an Email to all the users notifying them of the Quiz of the Day question. The student then navigates to the question and makes his attempt. Based on the following factors – correct answers, time taken to answer, the user is graded. What follows this is the correct answer for the question along with the explanation provided by his peers. The student can either upvote an existing explanation or provide one of his own. In the dashboard of the user, we will display recommendations for the user. The database would include the attempts of all the users. Based on the number of score obtained per question per user, the recommendation engine displays the topics to study. For example, if a student answered incorrectly for a question on ArrayList and ExceptionHandling in Java, then he would be recommended to study those topics. Likewise the recommendations are adapted to the response of the users.



# PERSONALIZING INFORMATION ACCESS FOR USERS

# CREATING INTERACTIVE VISUALIZATIONS USING JAVASCRIPT LIBRARIES

# RECOMMENDATIONS USING COLLABORATIVE FILTERING

# ADAPTQ: THE IDEA BEHIND THE QUIZ APPLICATION

# IMPLEMENTATION PLAN

# FUTURE PLANS FOR IMPROVEMENT

# CONCLUSION

# REFERENCES

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# REFERENCES

1. Gauch, Susan, et al. "User profiles for personalized information access." *The adaptive web*. Springer Berlin Heidelberg, 2007. 54-89.
2. Dolog, Peter. "Designing adaptive web applications." *SOFSEM 2008: Theory and Practice of Computer Science*. Springer Berlin Heidelberg, 2008. 23-33.

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