

**PROJECT PRESENTATION
ON
DESIGN AND IMPLEMENTATION OF REAL-
TIME ONLINE COMPETITIVE QUIZ SYSTEM**

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PRESENTATION OUTLINE

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INTRODUCTION

Quiz Competition is an activity that is organized to test the depth of the knowledge of participants in a topic or subject through the use of timed-questions. The participants of the quiz competition are scored points based on the correctness of their answers to questions and a winner emerges at the end of the activity. Quiz competition can be between individuals or team of participants. The platform for quiz competition include television shows, school organized events, web and mobile applications.

INTRODUCTION CONT.

A web application platform for quiz competition will have the following characteristics:

- Real-Time : This is necessary because the questions are timed and the failure of the system to respond within some time-constraint might lead to questions about the integrity of the quiz.
- Online: It is necessary that the competition is online so as it can allow participants in remote location to participate in it.

STATEMENT OF PROBLEM

Existing online quiz system in education are designed to allow competitions among individual participants and not among team of participants. But as shown by researchers, elements of competition and collaboration among students is needed for education to be effective.

SCOPE

- This project is designed for competition among teams in education system
- The means of collaboration among team members in this system is a chat system that support only text.

JUSTIFICATION

This project provides the platform for students in the distance location to enjoy the benefits of collaborative and competitive learning through a real-time online competitive quiz system. In addition it gives the platform for more competitions to be held among schools as the physical presence of students will no longer be needed for participation and it also reduces the cost in organizing quiz.

AIM

This project is aimed at developing an real-time online system that allows participants in remote locations to collaborate together in a quiz competition.

OBJECTIVES

The proposed objectives of this project are as shown below:

- i. Design a suitable model for a real-time online competitive quiz system.
- ii. Implement the model in (i).
- iii. Evaluate the effectiveness of the system.

LITERATURE REVIEW

Peschel et. al, (2007). An online real-time quiz system for Readiness Assessment Testing

The authors developed an online real-time quiz system for a freshman engineering course in Texas A&M University. The quiz is used for formative purpose and it is two parts. In this first part students answer time-based question as individuals. In the second part, the students are divided into groups and each group collaborate together to answer time-based questions using a single computer.

LITERATURE REVIEW CONT.

Sampaio et. al, (2012). Collaborative Quiz Game Developed With Epik.

This is an online competitive quiz project that enforces collaboration among competitors. It ensures that at least a competitor help another competitor that calls for help before the quiz can progress.

LITERATURE REVIEW CONT.

Chang et. al, (2003). Development and evaluation of multiple competitive activities in a synchronous quiz game system.

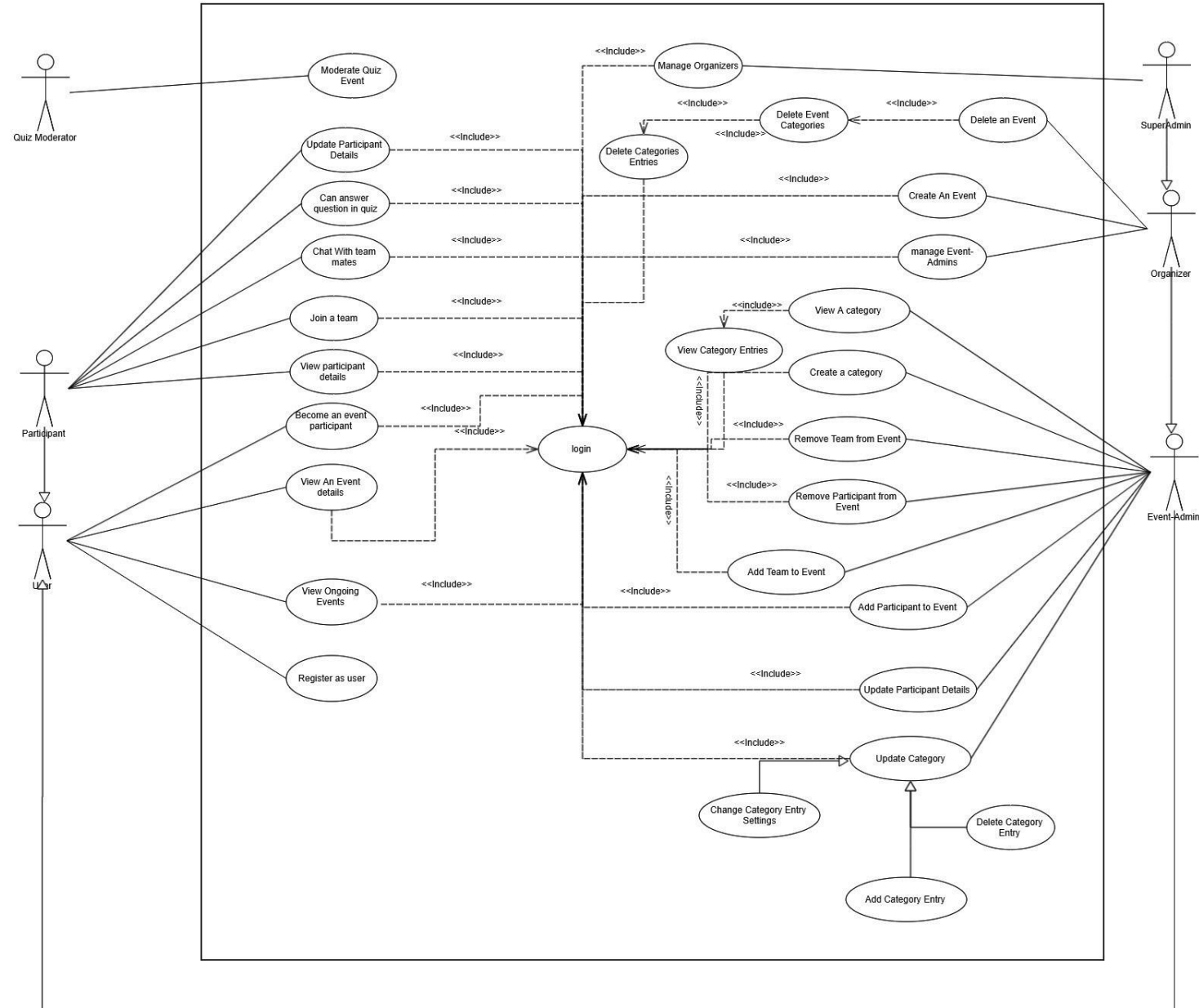
The authors developed a system called Joyce which is a computerized, competitive board game system that allows students to compete against each other or against a simple computer-simulated agent. The system is divided into several sections, one of the sections is quiz competition. The players make progress in the board based on the answers they give in the quiz.

METHODOLOGY

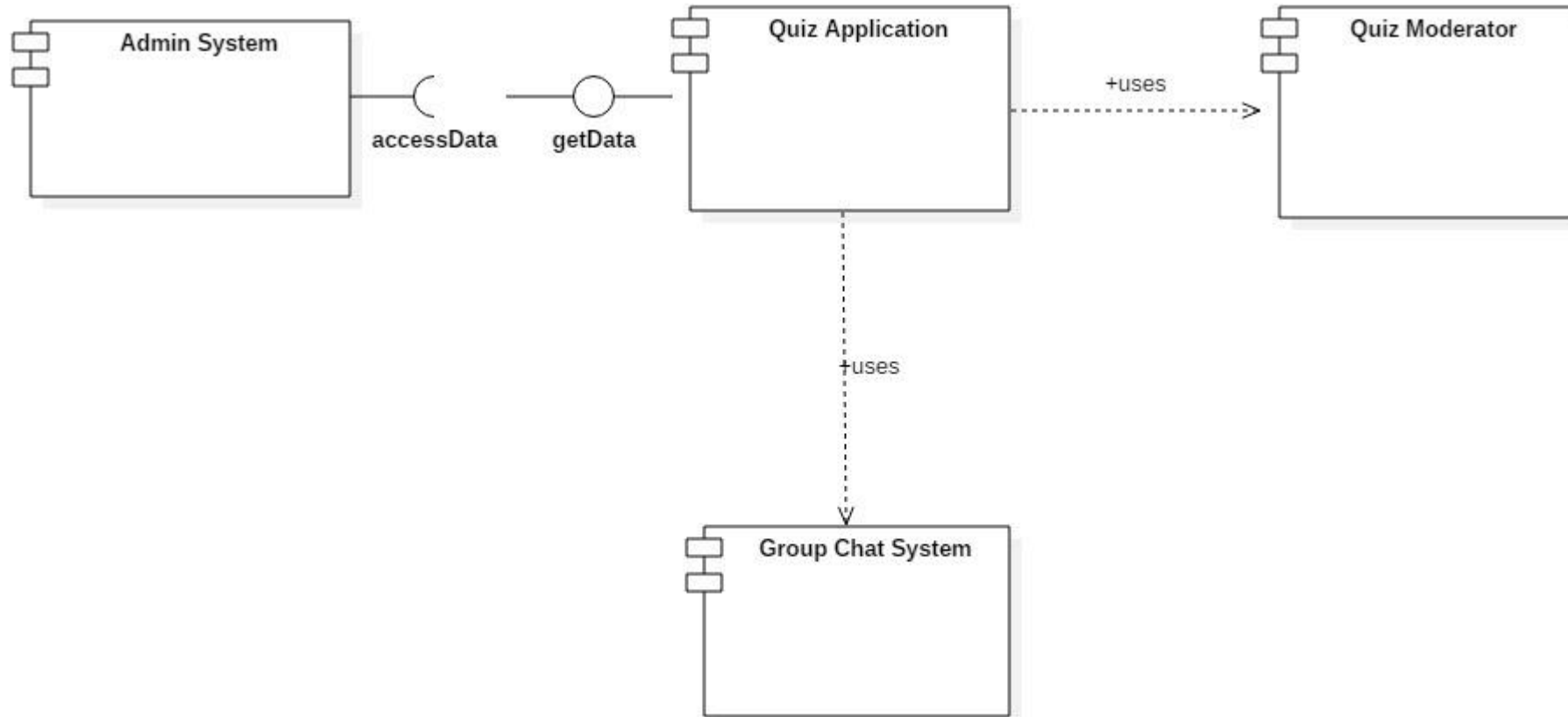
The methodology of this project includes the following steps:

- The design of the model of the system using Unified Modeling Language(UML) tools such as use-case, class diagram, state diagram, activity and sequence diagram.
- The system will be implemented using the following technologies MySql database, Redis, Nodejs, Socket.io and Angularjs.
- The system will be evaluated using metrics such as response time of the system, ease of collaboration among team members and ease of use in general

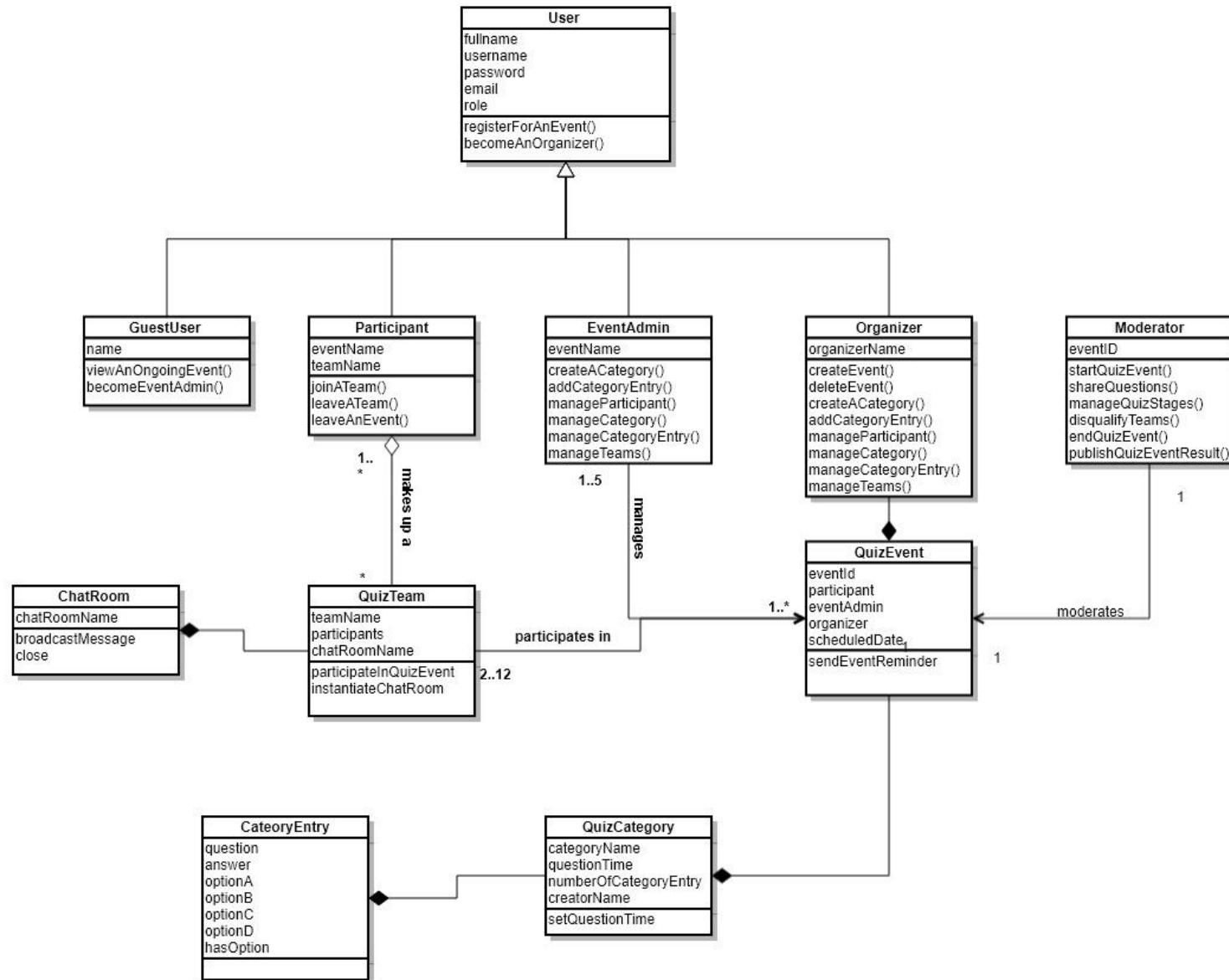
USE CASE OF SYSTEM



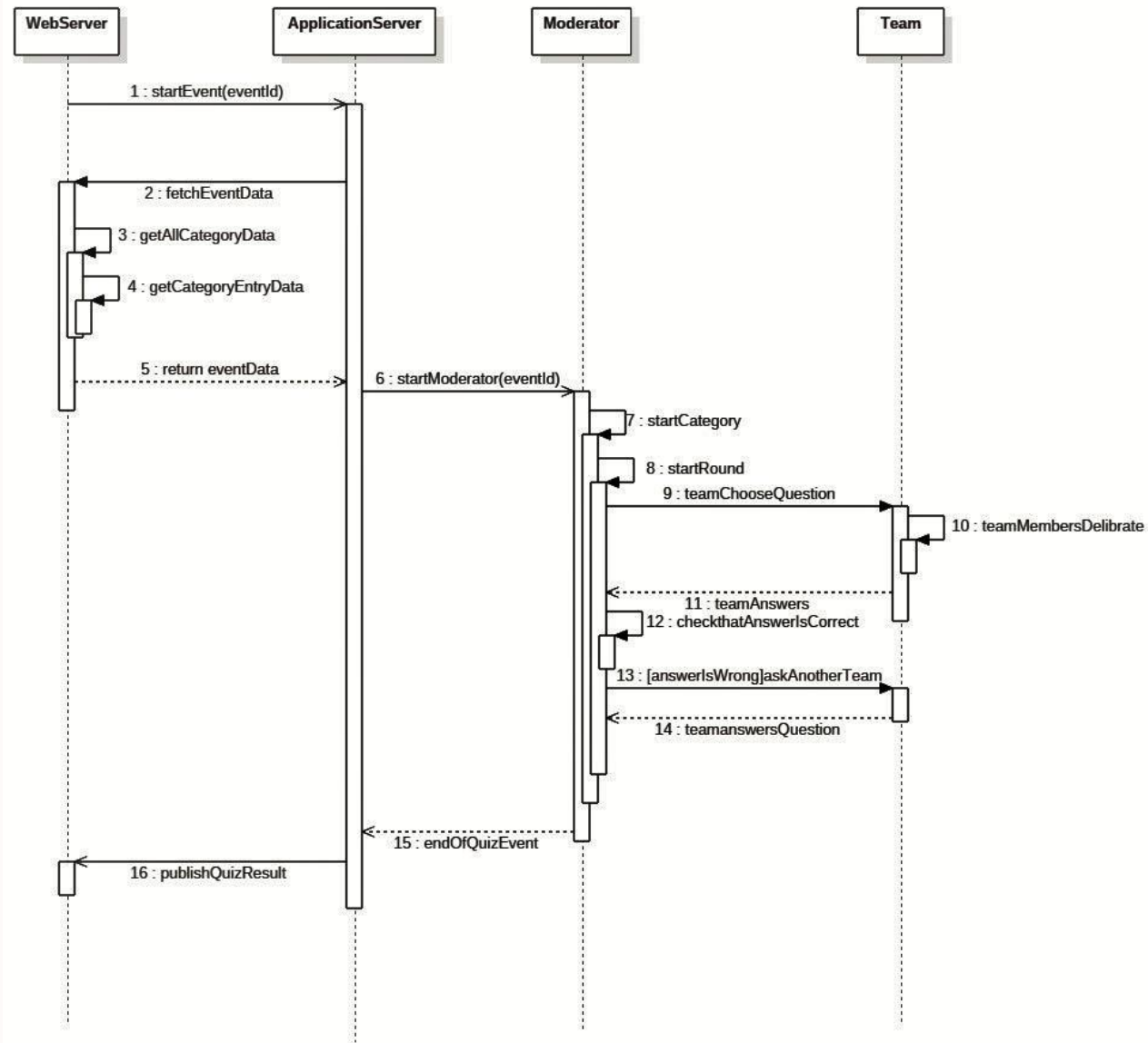
COMPONENTS OF APPLICATION



CLASS DIAGRAM



SEQUENCE DIAGRAM OF THE APPLICATION



CONCLUSION

Online real-time competitive quiz system will improve the learning experience of students that makes use of e-learning platform and it is going to encourage intra-school and inter-school quiz competition by providing a cheaper alternative in online platform without losing the excitement associated with quiz competition.

THANK YOU

REFERENCES

Chang L., Yang J., and Yu F., (2003), Development and evaluation of multiple competitive activities in a synchronous quiz game system, *Innovations in Education and Teaching International*, 40:1, 16-26, DOI: 10.1080/1355800032000038840

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