

# An advanced and secure framework for conducting online examination using blockchain method

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## Abstract

Nowadays, the online platform has been used by many educational institutions, to conduct tests, especially for secondary to tertiary level students. The most popular online test program is run by providing a user id and password to the candidates, and subsequently, they log in to the given web page to answer the questions. However, this system has a lot of bugs, the password can be misused followed by cheating in the test. This shows the importance of a secure system being implemented to avoid such a problem. This paper presents a blockchain framework that secures the online examination system. The proposed framework has been used to secure a data management system that connects to existing educational data. Institutions can simply compile their data history without requiring a copy from the central servers. The proposed blockchain framework improves data security and removes any potential cheating between users or third-party institutions that access applications and services. In this regard, this study provides a secured framework for conducting and evaluating subject tests to ensure consistency between student and server, and secure delivery of questionnaire from the server.