

Framework for Secure Exam Management System

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Abstract—Today there are two forms of training and education: Distance education and Conventional education. Mobile learning, or "M-Learning", offers modern ways to support learning process through mobile devices, such as handheld and tablet computers, smart phones and mobile phones, MP3 players. Mobile learning can be used to enhance the overall learning experience of our students and teachers. However, enforcing exam security in open environments where every student has her or his own tablet or mobile devices connected to a Wi-Fi network through which it is further connected to the Internet can be one of the most challenging tasks. This system discusses the background of mobile learning and how it can be used to enhance the whole eLearning system and introduces the subject of mobile learning for education purposes. The system also highlights the benefits and future challenges of mobile learning in our educational environments in both online and offline mode. The system will detect & capture the face of the candidate & it will be send to the admin, if candidate cheats, during the exam then system will terminate the exam and send a message on candidate's mail.

Index Terms—Frame work, exam management system

I. INTRODUCTION

One definition of Mobile learning or M-Learning is, "any kind of learning that happens once the learner isn't at a set, preset location, or learning that happens once the learner takes advantage of the training opportunities offered by mobile technologies" (MOBILearn., 2003). In different words, with the utilization of mobile devices, learners will learn anyplace and at any time (Crescente and Lee, 2011).

Mobile devices are rather more within your means than desktop computers, and have a less costly technique of net access. Currently, the pill PCs permits mobile net access with equal or a lot of practicality than desktop computers. The term mobile learning or briefly M-Learning refers to the utilization of mobile and hand-held IT devices, like mobile telephones, laptops, PDAs and pill computer technologies, in coaching, learning and teaching. The mobile learning is thought-about because the third wave of learning with mainframe and, desktop computers because the 1st and second waves. Some students could use their mobile devices in foreign language categories.

Different students could use their mobile cameras to photograph blackboards, PowerPoint or the other vital documents.

II. OBJECTIVES OF THE WORK

1. Provide security to personal information.
2. To detect fake (dummy) person at exam hall.
3. We design efficient techniques for provenance decoding and verification at the base station.

III. PROBLEM STATEMENT

The Quiz Engine embedded in Moodle is not built based on Service Oriented Architecture. enforcing exam security in open environments where each student has his/her own mobile/tablet device connected to a Wi-Fi network through which it is further connected to the Internet can be one of the most challenging tasks, to solve this problem we proposed an open source and widely accepted Learning Management System (LMS) and its service extension to the m-learning environment, namely "the Moodbile Project".

IV. LITERATURE SURVEY

1. Designing and implementing an adaptive online examination system

Authors: Mustafa Yağci *, Menderes Ünal

Description: A design and application of adaptive online exam system are carried out in this paper. Adaptive exam systems determine different question sets automatically and interactively for each student and measure their competence on a certain area of discipline instead of comparing their gains with each other. Through an adaptive exam technique, a student's distraction and motivation loss that is led by the questions with quite lower hardness level than his/her competency is prevented. In addition, negative effects of questions requiring higher knowledge than his/her competency over a student's self-confidence and morale are dismissed. Since questions are specialized so that they can allow making clear deductions about student gains, they are able to detect student competencies more effectively. Requiring less total time for measuring and being more flexible in the exam management are among the advantages provided by the system. Self sufficiency of the system in terms of planning, repeating and assessment of the measurement process especially allows itself to be used in the individual education sets. Through this system, student competencies can be determined more effectively in cases such as distant-learning, in which some challenges are experienced

frequently.

2. A platform on the cloud for self-creation of mobile interactive learning trails

Authors: Yiqun Li, Aiyuan Guo, Jimmy Addison Lee and Gede Putra Kusuma Negara

Description: We present a system to create mobile interactive learning trails. The system includes a web portal running on the Amazon cloud server for people without programming skill to create trails for outdoor fieldtrip learning, and two universal apps for iOS and Android phones respectively to run different learning trails. It enables rapid and easy creation of learning trails within 15 minutes without mobile app development. The learning contents can be customized by teachers, and activated by snapping pictures from physical Objects of Interest (OOI) or entering a geographic area. Image recognition technology is used to identify which OOI that the picture is captured from, and return relevant contents pre-associated with the OOIs.

3. The social & mobile learning experiences of students using mobile e-books

Authors: Jeff s. Kissinger

Description: This research was designed to explore the learning experiences of state college students using mobile electronic textbook (e-book) readers. The purpose of the study was to build a rich description of how students used e-books delivered on mobile computing devices for college-level, introductory sociology courses at a public state college in the southeastern United States. This research employed a multiple case study design that investigated and documented student experiences with this instructional technology. The bounding frame was comprised of the literature on mobile technology, mobile learning theories, and e-books. A theoretical lens of learning theories commonly found in the literature on mobile learning (constructivism, social cognitive theory, self-efficacy theory, expectancy x value theory, self-determination theory, and situated cognition) was situated within the mobile learning framework. The theoretical lens was used to provide insight to the student's learning experiences.

V. HARDWARE REQUIREMENTS

System : Pentium IV 2.4 GHz.
 Hard Disk : 40 GB.
 Ram : 512 Mb.

VI. SOFTWARE REQUIREMENTS

Operating system : Windows 7.
 Coding Language : JAVA, ANDROID
 IDE : JAVA Eclipse, ADT Eclipse.
 Database : SQLite, SQL

VII. ALGORITHM ANALYSIS

In this system we have used AES algorithm which is used for both encrypting and decrypting the data which will be submitted by the applicant while registering for the exam. Now for android base application the encrypted data is stored in the form of QR code with help of DATA HIDING algorithm. The QR code contains all the information about student which can be scanned before the exam to obtain the passkey. To generate a QR code we require QR CODE GENERATION algorithm.

After the applicant submits the answers the NLP algorithm is used to verify the answers. In other word this algorithm is used to analyze, understand and derive meaning from human language in a smart and useful way.

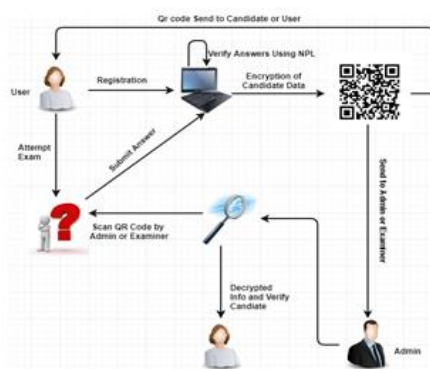


Fig. 1. System architecture

VIII. CONCLUSION

This paper has mentioned the improvement and want of the M-learning for the space education. The system highlights the benefits and future challenges of mobile learning in our educational environments in both online and offline mode. It produce the association between education and technology doable.

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