

University of Science and Technology

Faculty of Computer Science

Faculty of Post Graduate

A thesis in partial fulfillment of the requirement of the degree of
M.S.c in Computer Science

**An Integrated Web Base Examination
System**

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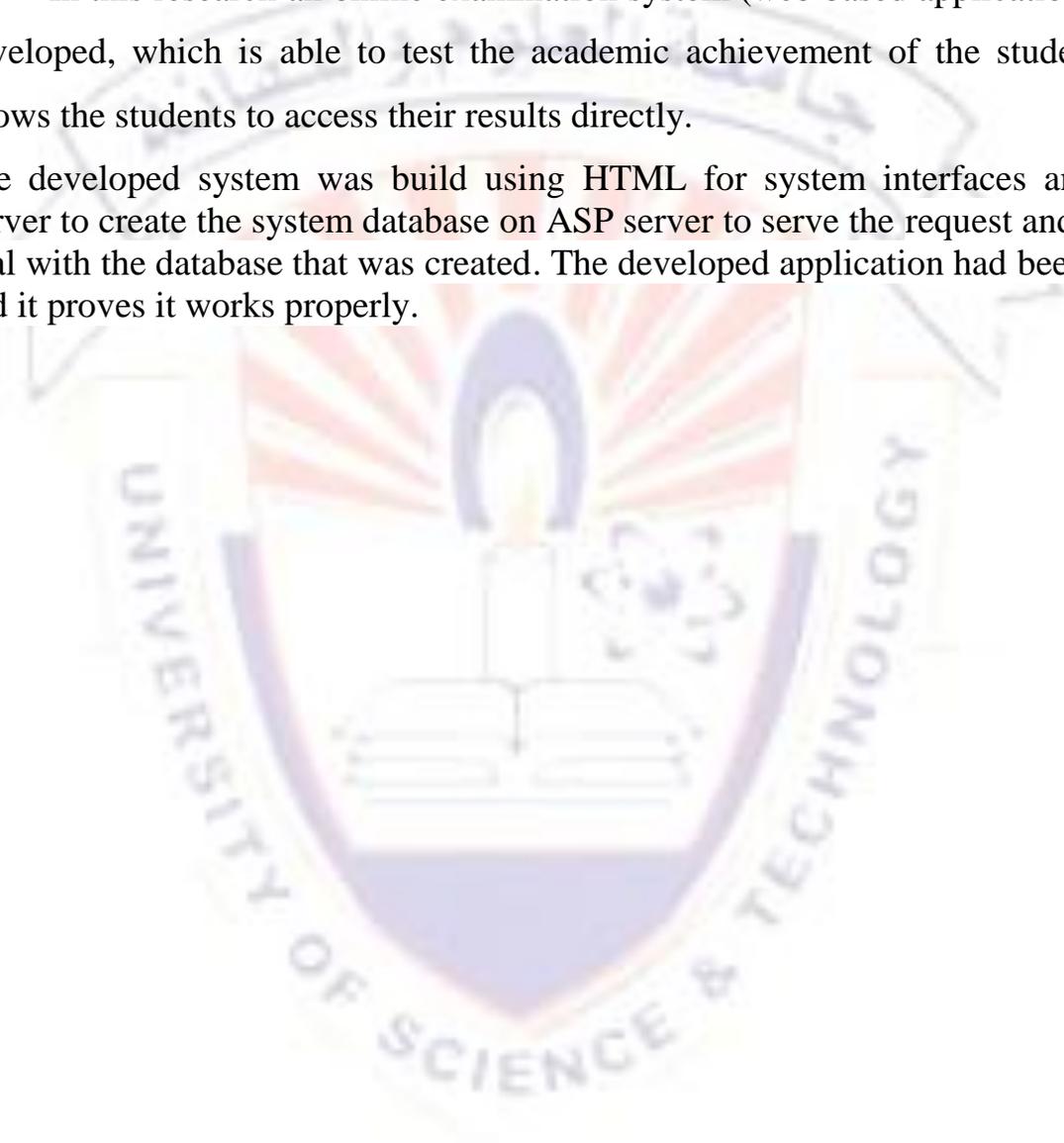
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Abstract

The most effective manner to fulfill the requirements of the distance education is the web applications. One of these requirements is online examination.

In this research an online examination system (web based application) was developed, which is able to test the academic achievement of the student, and allows the students to access their results directly.

The developed system was built using HTML for system interfaces and SQL Server to create the system database on ASP server to serve the request and also to deal with the database that was created. The developed application had been tested and it proves it works properly.



المستخلص

من أكثر الطرق فعالية لتحقيق متطلبات التعليم عن بعد هي تطبيقات الويب. واحدة من هذه المتطلبات هو الفحص على الانترنت.

في هذا البحث قمنا بتطوير نظام للامتحان المباشر (تطبيق على شبكة الإنترنت) قادر على اختبار

التحصيل الاكاديمي للطالب، ويتيح النظام للطالب للوصول إلى نتائجه مباشرة.

وقد تم بناء نظام متطور باستخدام HTML (Hyper Text Markup Language) لواجهات التطبيق و

(SQL_Server (Structured Query Language لإنشاء قاعدة البيانات على المخدم (Active

ASP Server Pages) لخدمة الطلبات وأيضاً للتعامل مع قاعدة البيانات المنشأة. وقد تم إختبار التطبيق

وثبت أنه يعمل بشكل صحيح.



1.1 Introduction

Web applications are now one of the most commonly used applications according to the development of communication systems and the Internet. Flourished e-learning applications and distance learning applications in recent times is a result of the significant and improvement in infrastructure.

Online examinations which are used for assessing the academic performance of the students are effective and now applied to the graduate and postgraduate level in education.

There are significant challenges in the construction and design of this software, which must meet all the requirements of holding the examinations.

Challenges of online examination systems can be represented among certain issues such as security (insecure internet backbone), authentication and performance. Besides concerning standardization through the examination structure.

In a nutshell , the major benefits of online examination due to, saving cost and time, real time evaluation, safe guard credibility in the university education, most of the traditional tedious problems s(Cheating, Plagiarism, Complaints of unfair grading, Delayed results, Missing scores, Missing units) it can be solved easy.

1.2 Research Problem

The implementation of the online examination for remote students those who are using electronic media, it being one of the challenges facing this type of learning, this is because it's too difficult to obey all requirements related to the examinations such as questions design, difficulties, differences, marking the examination, computing the result and output it using sufficient techniques for

security issues. And from the other side this type of examination will reduce the efforts done for organization and specifying dedicating places for the students.

1.3 Research Objectives

The objectives of this thesis are to:

- 1) Develop an application for an online examination that helps the students and the institutes to assessment the academic level of the students remotely.
- 2) Provides an environment for attending and finding the result in a real time.

1.4 Research Significance

The main contribution of this research is an enhancement for the examination techniques used via the internet, which has a great impact for the learning process at hole.

1.5 Methodology

- An analytical descriptive approach in which we describe the characteristics of our site.
- A practical implementation and testing of the developed web site.

1.6 Thesis organization

The research organization is as follows:Chapter two discusses the concepts of web based online examination system through their benefits and architecture. Chapter three explains the proposed system requirements, database design, process design and interface design. Chapter four is focusing on the implementation issues such as the database implementation, process implementation and interface implementation. Chapter five is dedicated for a testing the developed application. Conclusion and future work are in chapter six.