Online Intelligent Semantic Performance Based Solution: The Milestone towards Efficient Online Analysis

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Abstract:-As we analyse the computer application undergraduate logical-based courses in an assorted environment of online assignments and exams and offline lectures, and exhibit the impact on academic routine of factors such as classroom attendance, web-based course complement, and homework. We present grades from both ordinary front ends and where the latter method controls for unobserved variation among students. A system tailored intelligent instructional evaluation will generate the students, teachers & administration concepts, discussing the predisposition in estimation when the ordinary evaluation method is used, resulting from the fact that it ignores unobserved assorted. It also reduces the administrator's load and helps provide the flexibility to teacher's need for mass evaluation. The Online Intelligent Semantic Performance based Solution is web applications that ascertain an association between the institutes and the students. Institutes enter on the site, the concepts they want in the exam. The questions based on the relevant concept and the syllabus is displayed as a test to the eligible students. The answers entered by the students are then evaluated and their score is calculated and saved. This score then can be accessed by the institutes to determine the passes students or to evaluate their performance. It has been successfully applied to the distance evaluation of basic operating skills of computer science, such as the course of computer skills in Universities and the local examination for the under graduates in faridabad, Haryana.

Index terms:-Logical-based, Exam Management Systems, Online Intelligent Semantic Performance based Solution, Automatic assessment system, web-based exams, Validation, Usability.

I. INTRODUCTION:-

In India, the instruction for basic computer functional skills has been commonly launched. The expertises take account of the operating of Linux, MS Office, Web Technology skills, etc., which are the establishment of a combination of different courses, as well as of electronic-learning. Now, every undergraduate must pass the course of the Computer skills, while every civil servant must pass the corresponding Computer Operating Exams[2]. Furthermore, the basic computer education in high schools is in process. Since the late 2005's, hundreds of thousands of people have taken interest in different levels of computer education and testing in NCR. In past decades, a variety of assessment approaches and steps have been proposed. And as information technology keeps improving, numerous of them have been transformed from traditional paper-and-pencil to computerized and web based layout in recent years. It is necessary to build a Webased examination system for institutions which has a large number of students like in Egyptian universities, as an effective solution to mass learning and evaluation of basic undergraduate education [1]. It is necessary to build a Web-based learning and examination system for such a large number of people, as an effective solution to mass learning and evaluation of basic computer education.

II. WIDESPREAD ONLINE INTELLIGENT SYSTEM PERFORMANCE BASED SOLUTION

The widespread use of programmed testing in grading reduces ranking time and allows evaluators to focus on issues such as code style. In this paper the focus is on the conjunction of computerized testing systems with the ever expanded World Wide Web to produce web-based assessment and testing systems. This paper focuses on wide-ranging systems in which exams are delivered and graded by a vital server. The objective of this work is to build exam management tool for students and instructors to monitor and enhance learning and teaching practices. Over the years, a variety of evaluation schema and systems have been proposed. And as information technology keeps improving, numerous of them have been transformed from traditional paper-and-pencil to computerized and web-based format in recent years. It is necessary to build a Web-based examination system for institutions which has a large number of students like in Indian universities, as an effectual solution to mass learning and evaluation of basic undergraduate education[5]. It is imperative to develop an automatic grading system which can grade the formative assessments operating questions. However, the previous Web-based exam system cannot support such functions (4) Evaluating the students through the Internet is one of the most difficult challenges in E-learning (5), as part of the modern development in the technology of education systems. Web-based Examination system could be used via Internet or intranet

2.1 SYSTEM ARCHITECTURE

The system is broadly classified into three main modules of pre examination, the real time main module & the post – examination module.
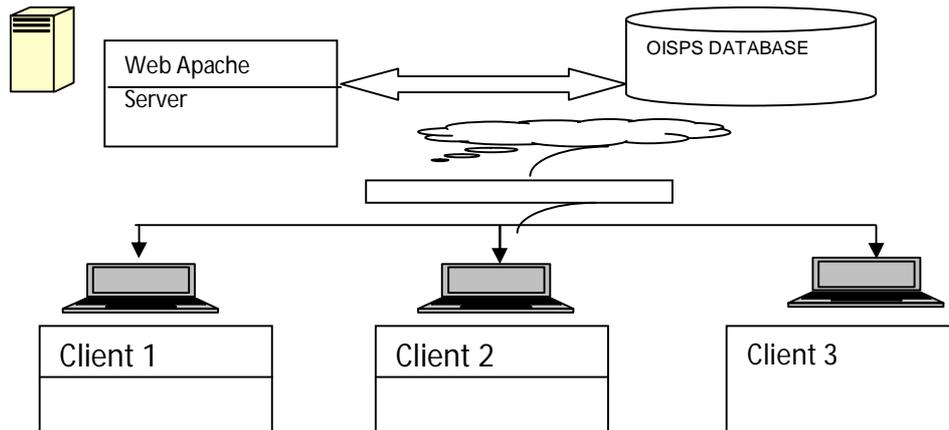
(i) Pre-examination:- The question database is composed of the questions, a set of possible answers, the question types and other metadata, which are indexed by several factors, such as topics, keywords, complexity and difficulty, etc.
The prior set of journey of examination to cover up in an organized manner are the following   :-
Registration & creation of login through student Id, teachers Q bank which are questions distributed to the formative assessment on the course of syllabi. Integrated keys based on semantic technique which is bounded with auto grading.   All questions are divided into topic. Schedule of exams

(ii) Real Time Screen Examination: - Requires students not to leave the computer during the test by user id, password authenticated tracking technology. The data transmission encryption system transmits the examination question and result in secret form through the network to the server [7]. It has following job to control a) Real time attempt b) time control and management

iii) Post Exam
a) auto grading (php mysql)   b)submission system .
The system is divided into four arenas, to work on the various aspects of Academics. Exam management systems are very important for all whom are involved in the education process like (Faculty, students and administration staff).
For the faculty: The faculty section is responsible for the assignments and test uploading.
For this prior to the test faculties are creating question banks and answer solutions to them .The questions provided in conjunction with the syllabus are assessed and then uploaded using intelligent tailor made integrated evaluation system.
 Marking the test is done automatically and instantaneously; the faculty is relieved from these, time consuming duties, Questions can be easily cast-off from the question bank, easily edited and changed, different versions of the same question can be generated for different students.
Moreover the faculties have acumen to evaluate on the IQ skills of the students to help them select the proper stream of their career. For the students: Tests can be taken in a prior scheduling according to the academic calendar conceptualized in a planned order & can be taken anywhere, Questions can be attempted in a peaceful environment, it can be taken using an undemanding personal computer and the minimal requirement is just a Web browser, Questions can be visualized with unique visual effects such as 3D, and objects in motion can be viewed.
For the administrator:-
This module is the building block of the entire module, bridging an interface with the faculty & students. It primarily focuses on the authentication of the other two modules which comprises the probability of unauthorized accession. The scheduling of the topic of test is also the foremost job of the administrator to ensure smooth functioning of formative assessment. The extensive use of programmed testing in grading reduces ranking time and allows evaluators to focus on issues such as code style. In this paper the focus is on the conjunction of computerized testing systems with the ever expanded World Wide Web to produce web-based assessment and testing systems. This paper focuses on wide-ranging systems in which exams are delivered and graded by a vital server. The objective of this work is to build exam management tool for students and instructors to monitor and enhance learning and teaching procedure.

III. ONLINE INTELLIGENT SEMANTIC PERFORMANCE BASED SOLUTION

The system based tailored software is made to present an evaluation system which requires minimal overhead by the teachers with respect to the performance system. By integrating and placing student's database from different branches of examination at centralized and data can be made available anywhere – anytime through internet.


3.1 The aim of the performance based system

As a universal examination system for the education of basic computer operation, it must meet the following requirements:[6]1. A realistic question storage, which must be conventional to the general outline of the exam. There are two types of exam edge. One is the simulation; the other is the actual environment. The second scheme will give the student more leniency because of the practical nature of computer skills. An array of question types, such as objective questions, conceptualized questions, and design questions, group testing, etc. leads to a safety and consistent examination system.

a.   The components of OISPS

The Web based Online Examination System (OISPS) is a multi-layer system which is composed of the Web Server (Apache Server), Database Server, OISPS middleware Server, OISPS client module and Browser, such as Internet Explorer. In this system, we use the Apache Web Server as the Web Server; the Database Server is MySQL .Internet/Intranet OISPS DB Workstation OISPS ClientIEWorkstation OISPS ClientIEWorkstation & OISPS ManagerIERouter

FIGURE 2
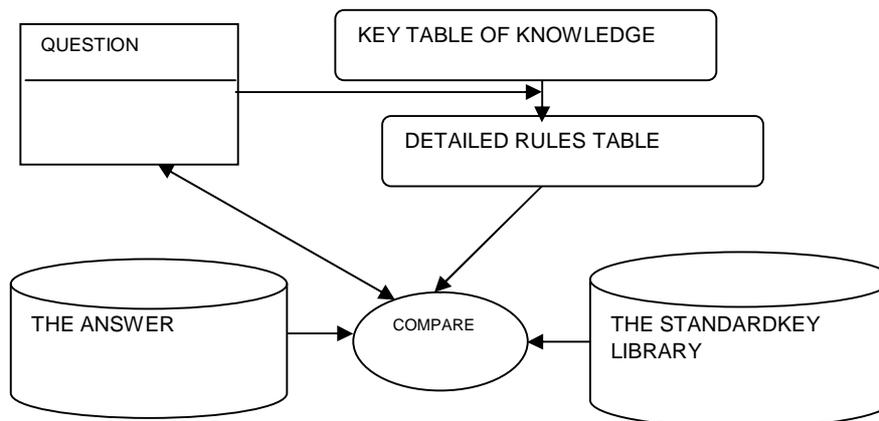
3.3   MULTI-LAYER OISPS

The kernel of OISPS is the OISPS Server and the OISPS client module, which is designed according to the apache administrator's server object's extension joining LAN, database, front end and Internet, which can instance and bind objects over different network. It is an advanced network protocol used to cooperate with COM based components of two processes in different locations.

The OISPS middleware Server is a server-side component providing communication interfaces between OISPS clients and the Web Server or Database Server. The OISPS client is a client-side component which is called by the Browser to control the client computer and submit or receive information from the OISPS Server. This technology guarantees the flexibility and the potential for extension of the test system. In addition, it allows access to local files, whereas in conventional systems, the IE security prevents such access. Internet Information Server Internet explorer OISPS Client OISPS Server Submit Receive OISPS DB FIGURE 2 COMMUNICATION OF CLIENT AND SERVER Benefiting from DCOM, the OISPS clients can be downloaded or updated automatically from OISPS middleware Server on the Internet. They can also move from one client to the other and communicate with the OISPS Server. The system acts like an Agent society, which is a centralized Agent system controlled by only the OISPS Server.

IV. TECHNOLOGICAL ASPECT OF XAMP CONTROL PANEL:-

To run php code, we are required three important things i.e. Php, mysql and a server (Apache/IIS). To create such environment, we may install all of them individually. But Installing and managing them separately can be typical task. Here XAMPP Control panel comes up with a solution. It is a free and open source cross-platform web server solution stack package, consisting mainly of the Apache HTTP Server, MySQL database, and interpreters for scripts written in the PHP . It is known as XAMPP because of following:- X – Windows /Linux, A- Apache, M- Mysql ,P – PHP.
A combination of advantages of using XAMPP for development are as follow:

1.   You can start and stop the whole webserver+database stack with one command.
2.   Good user interface.
3.   XAMPP is portable so you can carry it around on a thumb drive.
4.   The security settings are strict by default, nobody but you will be able to access the web server.
5.   Runs on both windows and linux.
6.   Php error reporting is enabled by default, which helps when debugging scripts.
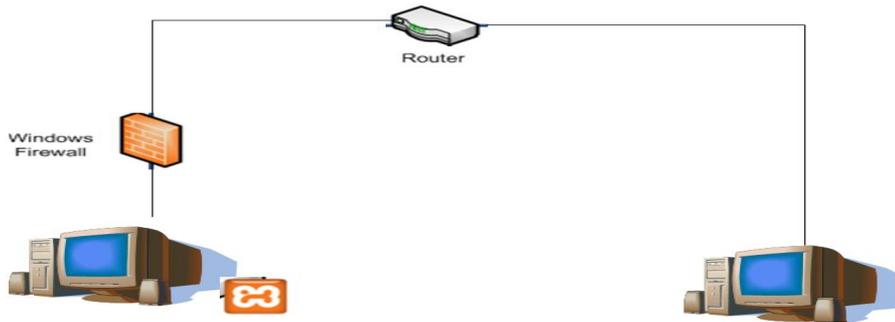
Operating System: Windows 7
IP address: 192.168.2.4
Description: Server
Applications: XAMPP

OERATING SYSTEM:WINDOWS 7
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DESCRIPTION: SERVER
APPLICATION:XAMPP

V. CONCLUSION

Intelligent Online system is a web based application that provides facility to integrate syllabus & provide online examination facility at a certain centre. It will bring improvement in quality of services to the stakeholders by producingcomputerised window system and online availability of information.Make strategic decisions in favour of u niversity and students. It saves time, as it allows number of students to give the exam at a time. Administrator has a privilege to schedule, modify and delete the test papers which are not according to the tailor made specifications and its particular questions. User can register, login and give the test with his specific id, and can see the results as well. Web-Based Examination System has been presented. It looks at the features and architecture for the analysis, the design, and the implementation of the EMS. A little changes of the future system could be done at that paper the description of that structure, analysis, design, and technologies has been done. In this paper an Internet- Based Examination System has been offered. It looks at the attributes and structural design for the analysis, the design, and the implementation of the intelligent exam system. Authors conclude that the architecture and the design is working well. A little changes of the future system could be done at that paper the description of that architecture, analysis, design, and technologies has been done. It also concludes that the presented system saves instructors from suffering and boring of grading works. The students have explored themselves and accessed a larger variety of exams than before. Taking advantage of auto grading system, instructors may not only add new questions in question bank, but also grade students' answers automatically. According to proposed questionnaire results where 94 % of the students like the user interface and 85 % agree that the system is usable. Also 86 % satisfy with the system and 99 % found the system is secure. Authors concluded that the According to proposed questionnaire results where 94 % of the students like the user interface and 85 % agree that the system is usable. Also 86 % satisfy with the system and 99 % found the system is secure. Authors concluded that the developed system satisfy the requirements. And it is secure, useable and has a very good user interface. In the future work more question types could be implemented also a more reliable security system could be done.

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