

## STAMFORD UNIVERSITY BANGLADESH

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

## **Online Quiz System**

By

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Degree of Bachelor of Science in Computer Science & Engineering

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## **DECLARATION**

I hereby, declare that the work presented in this Project is the outcome of the investigation performed by me under the supervision of Tanveer Ahmed, Lecturer, Department of Computer Science and Engineering, Stamford University Bangladesh. I also declare that no part of this Project and thereof has been or is being submitted elsewhere for the award of any degree or Diploma.

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## ABSTRACT

Online Quiz system will fulfill the requirements of the institutes to conduct the exams online. They do not have to go to any software developer to make a separate site for being able to conduct exams online. They just have to register on the site and enter the exam details and the lists of the students which can appear in the exam. Students can give exam without the need of going to any physical destination. They can view the result at the same time. Thus the purpose of the site is to provide a system that saves the efforts and time of both the institutes and the students.

Online quiz system is a web application that establishes a network between the institutes and the students. Institutes enter on the site the questions they want in the exam. These questions are displayed as a test to the eligible students. The answers enter 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. Online quiz system provides the platform but does not directly participate in, or is it involved in any tests conducted. Questions are posted not by the site, but by the users of the site.

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## **CHAPTER 1**

## **INTRODUCTION**

## **1.1 INTRODUCTION**

Online quiz is being launched because a need for a destination that is beneficial for both institutes and students. With this site, institutes can register and host online exams. Students can give exams and view their results. This site is an attempt to remove the existing flaws in the manual system of conducting exams.

#### **1.2 Purpose**

Online quiz system fulfills the requirements of the institutes to conduct the exams online. They do not have to go to any software developer to make a separate site for being able to conduct exams online. They just have to register on the site and enter the exam details and the lists of the students which can appear in the exam .Students can give exam without the need of going to any physical destination. They can view the result at the same time.Thus the purpose of the site is to provide a system that saves the efforts and time of both the institutes and the students.

## 1.3 What is Online Quiz System all about?

Online quiz system is a web application that establishes a network between the institutes and the students. Institutes enter on the site the questions they want in the exam. These questions are displayed as a test to the eligible students. The answers enter 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.

<u>O</u>nline quiz system provides the platform but does not directly participate in, nor is it involved in any tests conducted. Questions are posted not by the site, but users of the site. The site requires an institute to register before posting the questions.

The site has an administrator who keeps an eye on the overall functioning of the system. The site gets revenue by charging the institutes each time they want to conduct the exam. The system

entitled "Online Quiz System" is application software, which aims at providing services to the institutes and providing them with an option of selecting the eligible students by themselves. It is developed by using Moodle technology and related PHP and MySQL.

## **1.4 Software Requirement Specification (SRS)**

The following subsections of the SRS document provide an overview of the entire SRS.

#### 1.4.1 Purpose:

The purpose of the project is to provide online facility to *Institutes* to conduct online exams and to Students to give online exams. Institutes can enter and edit the questions along with the students list. Also they can view the result. Students can login and give their respective exams and view their score then and there. Others can view sample papers to get look and feel of the online examination system.

#### **1.4.2 Scope:**

The website to conduct online examination is online quiz system. This website provides facility to institutes to conduct online exams by providing a unique id to each institute. The institute provides questions along with positive and negative marks. Institute also enters the list of eligible students. All the information entered can be later edited by the institute. In turn students can login with their name and password to give the exams and can view their result then and there. Institutes can also view the result of their students. This online quiz website reduces the manual work, maintaining accuracy, increasing efficiency and saving time. Also institutes need not go to develop a new software each time, instead they just register and conduct a test. For students, it saves time of going to far away centers and also they can view their result then and there

#### 1.4.3 Overview:

The rest of this SRS document describes the various system requirements, interfaces, features and functionalities in detail

## **1.5 Overall Description:**

In Online examination system institute can register to conduct a online test and view the records later. Students can give the test and their respective records, which include their marks for each test given by them, will be maintained separately. Students can take a particular exam more than when the student finishes his exam; the system checks her answers and compared with the correct answer. And the system saves the incorrect and correct answers and calculates the mark of correct answers. Then give the total mark. And send a report for student to see where he is fault.

## 1.6 Objectives and concentrations:

- Corporate between the data stored in the server of the Institution and our On-line Exam system. To deal with On-line System in an easy way and an efficient mannered.
- Create strong and secrete data base that allow for any connection in a secret way, to prevent any outside or inside attacks.
- Specify a privilege for each person to allow each person use this system to create his own exam. And have a complete control on his exam.
- Allow each person to create more than one exam with different way to create variant questions.

## **1.7 Perspective:**

The application will have a user friendly and menu based interface. Following screens will be provided:

- 1. A login screen for entering the username, password will be provided. Access to different screens will be based upon the user. There is a screen for displaying information regarding entries to be made by institutes.
- There is a screen for displaying information regarding entries to be made by institutes. There is a screen for displaying information regarding entering student list for the particular exam.
- 3. There is a screen for displaying information menu regarding what There is a screen for displaying exam details to the students when they are taking exams questions, student list, deleting questions, entering exam details. There is a screen for displaying exam details to the students when they are taking exams.
- 4. There is a screen for displaying exam details to the students when they are taking exams. And there is a screen for taking exam for the students. Also There is a screen for displaying of results of students after taking the exam.
- 5. Hardware interfaces
  - i. Support for printer for printing results then and there.
  - ii. Screen resolution of at least 800x600 is required for proper and complete viewing of screens. Higher resolution will be accepted.
- 6. Software interfaces
  - i. Any windows based operating system.
  - ii. Moodle
  - iii. PHP, MySQL

#### **1.7.1 Product Functions:**

The website will allow access only to authorized users with specific roles (Administratormaintains the website, Institutes-Register to conduct the exams, Students-Give the exams online).

A summary of the major functions that the website will perform:

- a. Provide facility to institutes to register to conduct a online test.
- b. Institutes can enter the number of questions, +ve, -ve marks, questions and answers and the list of eligible students.
- c. Students can login and give the tests.

#### **1.7.2 User Characteristics:**

Educational level: Users should be comfortable with the English language.

Experience: Users should have prior information regarding the online examinations

Skills: Users should have basic knowledge and should be comfortable using general purpose applications on computers.

#### **1.7.3 Assumptions:**

The examinations are all objective. Students can give each exam more than once.

#### **1.7.4 Specific Requirements:**

This Section provides software requirements to a level of detail sufficient to enable designers to design the system and testers to test the system.

## **CHAPTER 2**

## **INTERFACE AND DESIGN**

## **2.1 System Interfaces**

#### 2.1.1 Moodle Registration Screen:

Various fields available on this screen will be:

- 1. Login Name
- 2. Institute Name
- 3. Email Id
- 4. Password

## 2.1.2 Moodle Login Screen:

Fields available on this

- 1. Login Name
- 2. Password

## 2.1.3 Entering Questions:

Various Fields are:

- 1. Questions
- 2. Options (4)
- 3. Correct Answer

## 2.1.4 Exam Details Screen

Various Fields are:

1. Exam Name

- 2. No. Of Questions
- 3. Time Limit
- 4. +ve, -ve Marks
- 5. Passing Mark

## 2.1.5 Student Login Screen:

Various Fields are:

- 1. Student Name
- 2. Password

#### 2.1.6 Teacher Login Screen:

- 1. Name
- 2. Password

#### 2.1.7 Admin Login Screen

- 1. Name
- 2. Password

#### 2.1.8 Student Taking Exam Screen:

Various Fields are:

- 1. Display Of Question With Options
- 2. Control Buttons To switch questions

#### 2.2 Result Displaying Screen:

Various Fields are:

- 1. No. Of Correct Questions
- 2. No. Of Incorrect Questions
- 3. No. Of Unattempted Questions.
- 4. Total Marks.
- 5. Result(Pass/Fail)

### **2.3 Communications interfaces:**

#### **2.3.1 Software Product Features:**

Moodle provides validity checks for various fields in the form.

## **2.4 Sequencing Information:**

All the information regarding exam details, student list, question details, test details are display of result should be handled sequentially that is data should be stored are only in a particular way of information. If any of the validations or the other form of sequencing flows does not hold true then appropriate error messages will be prompted to the user for doing the needful.

#### 2.4.1 Performance Requirements:

This subsection specifies numerical requirements placed on the software on the human interaction with the software, as a whole. Numerical requirements will include:

- 1. 300 terminals will be supported at a time
- 2. Only text information will be supported(HTTP)
- 3. All the transactions will be processed within seconds.

#### 2.4.2 Design Constraints:

Only authorized users will be able to access the website by entering the correct login name and corresponding password. The website can be maintained in present or future. It will be easy to incorporate new requirements in the individual modules. As the website is online so it will be easily portable on various systems. The website will be also easily portable on any windows based system that has Ms Access installed.

## **CHAPTER 3**

## FUNCTIONAL AND NON FUNCIONAL

## REQUIREMENTS

## **3.1 Problem Definition**

A website, online quiz system is to be designed to conduct online tests. Unlike other online examination systems this website should not be just for the students; instead it should also provides facility to Institutes to host online Tests/Exams. This will help institutes as:

There will be no need to get new software every time to conduct an online test. Also like other online websites, it will help students by:

- Saving the extra time of going to far away Exam Centre.
- Students need not wait for their results.

Also this website will remove the flaws of existing Manual Systems like:

- Reducing the manual labor (Decreases Overheads).
- Avoiding Mistakes Due To Human Error (Accurate).
- Will Increase Efficiency and Save Time.
- Will Allow Neat Handling Of Data Rather Than Error Prone Records.
- The institutes will register themselves with a unique login name and password; the unique id will be issued to the institutes by the website.

After login:

- They will enter exam details like number of questions, +ve and -ve marks.
- Then they will enter the questions along with the answers which can later be deleted and edited.
- Also they will enter the list of eligible candidates with their id names which can also be edited later.
- Institutes will be able to view the students list along with their respective results. Also for students:
- They should be able to login with their id, name and institute.
- They should be able to give the exam as per the details entered by respective institutes.

- Also they should be able to view their score after test finishes.
- If already given the test then they should just be able to view their scores.
- Other users can take sample tests to get feel and look of how the online tests are conducted.

#### **3.2 Functional Requirements:**

It deals with the functionalities required from the system which are as follows:

- 1. The website will help the colleges/organizations/companies to conduct to their online exams.
- 2. Only authorized person can access related details.
- 3. The organization will register them on the website for conducting their exams.
- 4. Organizations can change their information regarding themselves.
- 5. The students can login through TEST-ID and PASSWORD and give their exams.
- 6. Administrator will be responsible for updating the site.
- 7. The organization can change questions and test papers whenever they want.
- 8. Deliver the draft of project plan documentation to writer to rewrite the documentation and rewrite the document.
- 9. That gives the documentation of project plan to SW analyzer to do more analysis to verify the SRS documentation requirements then delivers document to writer.

## 3.3 The Technologies Used To Develop This Site:-

#### 3.3.1HTML:

It is used to generate web page. HyperText Markup Language (HTML) is the predominant markup language for web pages. It provides a means to describe the structure of text-based information in a document-by denoting certain text as heading, paragraphs, lists and so on.

#### 3.3.2PHP:

PHP is a server-side scripting language designed primarily for web development but also used as a general-purpose programming language. PHP code may be embedded into HTML code.PHP code is usually processed by a PHP interpreter implemented as a module in the web server or as a Common Gateway Interface (CGI) executable. The web server combines the results of the interpreted and executed PHP code, which may be any type of data, including images, with the generated web page. PHP code may also be executed with a command-line interface (CLI) and can be used to implement standard graphical applications.

#### **3.3.3MySQL:**

MySQL is an open source relational database management system (RDBMS). MySQL is a central component of the "LAMP" open-source web application software stack. LAMP is an acronym for "Linux, Apache, MySQL, and Perl/PHP/Python". User may use the included command line tools or use Mysql "front end", desktop software and web applications that create and manage Mysql database, built database structures, back up data, inspect status and work MySQLi extension comes equipped with many benefits that compliment as well as improve those that were provided by its predecessor, MySQL. The features that are meant to enhance the functionality of the MySQL are an object oriented interface, support for statements that have been previously prepared, support for a variety of statements, support for any kind of transaction that takes place, an enhanced level of debugging support, and an enhanced level of server support that already embedded in the infrastructure of the database.

#### 3.3.4 HTTP:

Hypertext Transfer Protocol is a transaction or oriented

#### **3.3.5 Apache:**

The Apache HTTP Server Project is an effort to develop and maintain an open-source HTTP server for modern operating systems including UNIX and Windows. The goal of this project is to provide a secure, efficient and extensible server that provides HTTP services in sync with the current HTTP standards.

## **3.4 Non Functional Requirements:**

They are the quality requirements that stipulate how well a software does what it has to do.

#### 3.4.1 Performance

No. of terminals to be supported is dependent on the server that we will use at the time of deployment. The web application server used should provide good performance and ability to manage performance with techniques such as support for caching. After completing the exam, the entire score of the student will be calculated as per the rules in less than a second.

#### 3.4.2 Availability

Online Examination site has 24\*7 availability. It can be accessed for 24 hours a day. For this UPS support must be on the server site with a backup of at least 8 hours in case of power failure. Students can take exam only during the previously allotted time slots, however can open site anytime to access other information. Colleges can register for the exam anytime.

#### 3.4.3 Reliability

It means the extent to which program performs with required precision. The website developed should be extremely reliable and secure so that information about any questions etc. is not leaked before the actual exam is held.

#### 3.4.4 Usability

The website should be user friendly and should require least effort to operate. The web server used should provide services like session management to maintain sessions in the application.

#### 3.4.5 Portability

The website is made using HTML, PHP etc. which are platform independent and can be transported to other servers with minimum effort.

#### **3.4.6 Flexibility**

It is effort required to modify operational program. The whole website should be made using independent modules so that any changes done in 1 module should not affect the other one and new modules can be added easily to increase functionality. This is an era of information technology where automation of each and every activity is gaining importance. The site will lead to the automation of the examination system. Moreover it is far better than the previous such websites.

## 3.5 Computerized vs. Manual Examination System:

Automated process of examination is much better than the manual system as it has following advantages:

- Time saving
- Increased efficiency
- Allows neat handling of data rather than error prone records.
- Decreases overhead
- Accurate

#### 3.6 Online Quiz is better than other websites

This website is better than previous versions as most of the online exam sites provide facility to only one institute to hold the tests. They are static and are associated with a particular institute or test. Online Quiz is a website that can be used by multiple institutes. Any institute that want to conduct the exam can register on the site. Online examination is an assessment that use network connection or internet in its process. Individuals and students must sign in on an assessment program or web link by entering their username and password. Then they choose the course that will be tested and the student start answering the questions that is shown on the screen. After they have finished the examination, the student taking the exam must click on a certain button that would require finishing the examination process.

## **CHAPTER 4**

## **FEASIBILITY AND TESTING**

## 4.1 Feasibility Study:

- Once scope has been identified with the concurrence of the customer it is reasonable to ask: "Can we build software to meet this scope? Is the project feasible?" All too often, software engineers rush past this questions (or are pushed past them by impatient managers or customers), only to become mired in a project that is doomed from the onset.
- 2. When we are developing the system (software), we must know the proposed system will be feasible or i.e. practically implemented or not it may possible the proposed( candidate ) system may not implemented due to many reasons like it may take long time in development than the specified time limit ,cost may increase than proposed one etc. Therefore we must analyze the feasibility of the system.
- 3. Feasibility is the analysis of risks, costs & benefits relating to economics, technology & user operation.
- 4. There are several types of feasibility depending on the aspect they covers.
- 5. Some important feasibilities is as follows:
  - i. Technical Feasibility
  - ii. Operational Feasibility
  - iii. III) Economical Feasibility

## 4.2 Technical Feasibility:

The technical feasibility study basically centers on alternatives for hardware, software and design approach to determine the functional aspects of system. This project on Online Quiz System will be platform independent since it is being doing using Moodle. Hardware requirements used are compatible with all operating system Only authorized person would be able to use the website so it would be secure person would be able to use the website so it would be secure. The system can also be expanded as per the needs of requirement specification.

## 4.3 Operational Feasibility:

Operational Feasibility is a measure of how people are able to work with system. This type of feasibility demands if the system will work when developed and installed. Since website is very user friendly so users will find it comfortable to work in this site.

### 4.4 Economical Feasibility:

Economic analysis is the most frequently used evaluating the effectiveness of proposed system, more commonly known as Benefit analysis. The Benefit analysis is to determine benefits and savings which are expected from candidate system and compare them with cost. If the benefits are more than the cost, then decision is made to design and implement the system. The cost and benefits may be direct or indirect and tangible or intangible.

## 4.5 Testing:

- Software testing is the process of executing a program with intension of finding errors in the code. It is a process of evolution of system or its parts by manual or automatic means to verify that it is satisfying specified or requirements or not.
- 2. Generally, no system is perfect due to communication problems between user and developer, time constraints, or conceptual mistakes by developer.
- 3. To purpose of system testing is to check and find out these errors or faults as early as possible so losses due to it can be saved.
- 4. Testing is the fundamental process of software success.
- 5. Testing is not a distinct phase in system development life cycle but should be applicable throughout all phases i.e. design development and maintenance phase.
- 6. Testing is used to show incorrectness and considered to success when an error is detected.

#### 4.6 Objectives of Software Testing:

The software testing is usually performed for the following objectives:-

#### 4.6.1 Software Quality Improvement:

The computer and the software are mainly used for complex and critical applications and a bug or fault in software causes severe losses. So a great consideration is required for checking for quality of software.

#### 4.6.2 Verification and Validation:

Verification means to test that we are building the product in right way .i.e. are we using the correct procedure for the development of software so that it can meet the user requirements. Validation means to check whether we are building the right product or not.

#### 4.7 Software Relativity Estimation:

The objective is to discover the residual designing errors before delivery to the users. And residual designing errors before delivery to the user are come after the proper procedure of software. The failure data during process are taken down in order to estimate the software reliability.

#### **4.8 Principles of Software Testing:**

For the most effective testing should be conducted by an independent party.

- Keep software static (without change mean while) during test.
- Document test cases and test results.

• Examining what the software not doing which it expected to do and also checking what it is doing that was not expected to do.

## 4.9 Strategy for Software Testing:

Different levels of testing are used in the test process; each level of testing aims to test different aspects of the system.

- 1. The first level is unit testing. In this testing, individual components are tested to ensure that they operate correctly. It focuses on verification efforts.
- 2. The second level is Integration testing. It is a systematic technique for constructing the program structure. In this testing, many tested modules are combined into the subsystem which is then tested. The good here is to see if the modules can be integrated properly.
- 3. Third level is Integration testing. System testing is actually a series of different tests whose primary purpose is to fully exercise computer based system. These tests fall outside scope of software process and are not conducted solely by software engineers

## 4.10 Level 0 DFD For Online Quiz System:



Figure 4.1- Level 0 DFD of online quiz system

## **CHAPTER 5**

## **MOODLE COURSES**

## 5.1 How to Set Up Courses:

- Setting up Moodle course
- Navigation around Moodle
- Moodle course format
- Moving element around course
- Structure best setting for navigable, usable Moodle courses
- Accessibility frequently asked questions
- Calendar entries

The **navigation** block shows where you are within Moodle and also has links to your profile and other features depending on your current location within Moodle. The **Settings** block is also context sensitive and gives you access to functionality related to your current position in Moodle.



Figure 5.1 - Navigation and Settings

It is quite easy to get lost in a large course, so you will see a **crumbtail**, just below the Moodle dropdown navigation, which shows you where you are and how to get back to the home page.

## **5.2 Moodle Functionalities:**

#### 5.2.1 Add Question to A Question Bank:

Every Moodle course comes complete with a question bank, where all questions created for the course are stored. To add questions to the bank:

- On the course home page, in the settings block, select Course administration>Question Bank>Questions.
- 2. On the *question* page, **from the drop down list select a category**, you want to add question. You can also select whether and how questions already created for that category display.
- 3. Click Create a new questions.

In the *choose a question page* window, select the question type and click add.

- 1. On the *adding a question on the question page*, complete the question, answer and feedback fields as required, clicking the Help button for assistance if necessary.
- 2. If the question is complex and you want to check how it will display to the student, scroll to the bottom of the page and click **Save changes and continue editing.** Then:
  - Click **preview**, and the question will display in the *preview question* window.
  - If necessary, adjust the **attempt options** and click **Star again with these options** to see how the revised question behaves.
  - If necessary, change **Display options** and click update display options to check the display.
  - $\circ$  Close the window when you are happy with the way the question behaves.

## **5.3 Import Questions from File:**

On the editing quiz page, at the upper right, next to Question bank content, click Shows

- Make your choice from the Select a category list.
- $\circ$  Select the check box of the question(s) to be added to the text.
- Click the double arrow next to the check box to add a single question, or click Add to quiz to add multiple questions to the quiz. The questions are added.
- You can also add random questions from the chosen category to the quiz.

Set	tings
-	Course administration
	Turn editing off
	2 Reset
	<ul> <li>Question bank</li> </ul>
	Questions
	Categories
0	= Import
	Export
	Repositories

✓ File format	
* ?	O Aiken format
?	O Blackboard
?	O Embedded answers (Cloze)
?	O Examview
(?)	O Gift format
(?)	O Learnwise format
(?)	<ul> <li>Missing word format</li> </ul>
(?)	O Moodle XML format
(?)	O WebCT format
✓ General	
Import category 🕐	Cattle
	Get category from file Get context f
Match grades 🕐	Error if grade not listed
Stop on error 🕐	Yes 🐱
<ul> <li>Import questions from f</li> </ul>	ile.
Import*	Choose a file Maximum size for new
	Drop files H
	1

Figure 5.2 - Import Questions from File

## **5.4 Grant Extension for A Quiz:**

If is not recommended to use a combination of group and user overrides. If you must do so, note that user overrides take precedence over group overrides to extend an individual's submission times or grant them special access **to a quiz.** 

- 1. On the course home page, click **Turn editing on.**
- 2. Click the Update icon for the relevant quiz.
- 3. On the *editing quiz* page, in the **settings** block, under Quiz administration, click User overrides.
- 4. On the resulting page, click Add user override.
- 5. On the *edit override page*, override for the individual student, then make the appropriate changes. You can:
  - o require this student to use a password to enter the quiz
  - specify different **Open** or close dates or times in the event of extenuating circumstances or special needs.
  - o allow this student a different number of quiz attempts.
- 6. Click **save** The overrides overview page displays, showing all current overrides and their details. Add another user override or return to the *editing quiz page*.



Figure 5.3 - Grant Extension for a Quiz

## 5.5 View Result Report:

To access reports relating to a quiz:

- 1. On the course home page, click the quiz's link.
- 2. In the settings block, click Quiz administration >Results
- Select from the list of the 4 types of reports available: Grades, Responses, Statistics or Manual Grading.



Figure 5.4 view result report

#### 5.6 Grades:

The Grades report tells you about student quiz attempts, displaying the overall grade, and summary of each correct/incorrect answer. It also reports on the State student progress through a quiz, the time the quiz was started/completed and the total time the student took to complete it. You can re-grade quiz attempts by selecting Re-grade selected attempts. A bar graph summarizes the grade range and frequency.

## **Responses:**

The Responses report is visually similar to the Grades report, but it shows the responses students gave to quiz questions, not the marks they earned. You can view the question text/correct answer to compare students' responses.

## **Statistics:**

The Statistics report provides statistical ("psychometric") analysis of the quiz and the questions it contains. The report is divided into 3 sections:

- A summary of the whole quiz
- An analysis showing all questions in table format, and
- A bar graph of the percentage of correct answers the "Facility index" and the "discriminative efficiency index".

#### 5.6.1: The Summary Selection Contains The Following Data

#### **Items:**

- Course name
- Open/Close dates (only if selected in Quiz settings)
- Number of complete graded first attempts
- Total number of complete graded attempts
- Average grade of first attempts
- Average grade of all attempts
- Median grade (for all attempts)
- Standard deviation (for all attempts)
- Score distribution skewness (for all attempts) a measure of the asymmetry relative to Gaussian distribution

- Score distribution kurtosis (for all attempts) a measure of the shape of probability distribution
- Coefficient of internal consistency (for all attempts) a measure of whether each quiz question is testing the same concept. The higher the number the greater the consistency.
- Standard error (for all attempts)

#### 5.6.2 The Quiz Structure Analysis Show The Following:

- Quiz number
- Question name
- Attempts
- Facility index describes percentage of students who answered the question correctly.
- Standard deviation the variation of scores for the question.
- Random guess score the score a student would get for randomly guessing
- Discrimination index the correlation between the score for a question relative to the student's score for the whole quiz. If a person does well in a question, they should do well in the quiz. The higher the number the better the correlation.
- Discriminative efficiency the Discrimination index as a fraction of the maximum possible marks for the question. For a question with a very high average score (a high Facility index) it is very hard for a student to achieve a high Discrimination index on that question.

Below this section is a bar graph illustrating the Facility index and the Discriminative efficiency.

#### 5.6.3 Manual Grading:

The Manual Grading report enables instructors to manually grade written submissions within a quiz.

It contains the following information:

- Question number
- Question name
- Items to grade
- Items already graded
- Total submission

To grade submissions, in the To Grade column select Grade . All the quiz responses to be graded will display. Read each submission, provide comments and a final mark and repeat the process until all submissions are graded. The comments and marks are exported to the Grade book when you select Save and go to next page after marking each submission. the Settings block, under Course administration, click Reports.From the expanded Reports menu, select which report you want to see .This example shows Logs.



Fig 5.6 - Generate course participate reports

## **5.6.4 Generate Course Participation Reports:**

For some courses, student participation in forums plays a significant role in determining their final mark. To obtain a quick scan of posting activity by students for the purpose of awarding a participation mark, follow these instructions on the Set a forum page page.

Use the Course participation report to send messages to participants who may be falling behind on certain learning material. To do this:

- 1. In the Settings block, under Course administration, click Reports.
- 2. Select Course participation from the expanded menu.
- 3. On the course participation page, select:
  - The relevant Activity module to run a report on.
  - How far you'd like to Look back.
  - The relevant user role for example Student and
  - The actions users performed in relation to a certain activity View or post in a forum.



Figure 5.7 Generate participation

- When the list of students displays, select students' check boxes or click Select all or Select all 'No'. If the Select all 'no' button is missing, click the Show all button to expose it.
- 7. At With Selected users, select Send a message and click Ok.



Figure 5.8 Selected users

- 8. On the Message course page, enter your message and click select all.
- 9. On the HTML format preview page, click Send message.

## **5.6.5 Enable Course Access Reports For Students:**

- Locate the Settings block.
- under Course administration click Edit Settings.



Figure 5.9 Administration Block

When enabled, the student will see a reports section on their profile page which is accessed by:

- 1. Click your name in the top right to access a drop down menu and select profile.
- 2. Locate and click the course in the list under Course details>Course profiles.
- 3. Locate the Reports section on the right hand side and select a report or log to that options.



SETTINGS	() X
<ul> <li>Course administration</li> </ul>	
🖋 Turn editing on	
🔅 Edit settings	
Course completion	
Users	
T Filters	
✓ Reports	
C Logs	
🚰 Live logs	
Activity report	
Course participation	
Activity completion	
Statistics	
Grades	
C Outcomes	
🏦 Backup	
📥 Restore	
📥 Import	
Publish	
D Reset	
Question bank	
Repositories	
Legacy course files	
Switch role to	
My profile settings	
Site administration	

Fig 5.10 Enable course access reports for students

## **CHAPTER 6**

## **QUIZ IMPLEMENTATION**

# 6.1 Instructions to Students For Using Online Quiz In Moodle:

Login into the system using your respective Username and Password.

G online quiz sytem using m $ imes \mid$ G Gmail	× 🔲 Online Quiz System: Log i × +	🙀 বীয়াল্লো 🚺 English	~ 🔍 🗮 🗡	-	٥	×
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OQS			You are not logged in.			^
Stamford Univer Education for Name Home / Log in to the site	sity <b>Bangladesh</b> orde a prosent model					
	Log in Username Password Remember username Log in Forgotten your username or					
	password? Cookies must be enabled in browser (*) Some courses may allow gur access Log in as a guest	rour	Activate Wind Go to Settings to r	OWS activate Win		
🛯 O 🗊 🛱 🥹 📜 💆				· //₂ ■ 1:2 4/2	4 PM 8/2017	5

Figure 6.1- Login system

## 6.2: View The Courses For Which You have Registered/Enrolled:



Figure 6.2 - Courses for Enrolled Users

## **6.3 Showing All Registered Courses:**

localhost:8080/	/course/view.php?id=4	▼ C Search	☆自 ♥
	Stamford University Bangladesh OQS		Mobassharah Jannat Nadee 🛛 🐳 👻
	COMPUTER NETWO	RKING	Turn editing on
	NAVIGATION Dashboard Site home Site pages	Announcements	
	<ul> <li>Current course</li> <li>CN</li> <li>Participants</li> <li>Badges</li> <li>General</li> <li>Computer Networking quiz 01</li> <li>Assignments</li> <li>Topic 3</li> </ul>	Computer Networking quiz 01 Section 1 Section 02 Quiz Demo 3 Demo 4	

Activate Winde



#### The Administrator can be done the following:

- ✓ Create/delete accounts for example add a list of faculty names and list of his student
- ✓ Change password for Faculty/Student
- ✓ Create/ delete/update courses

#### The Faculty can be done the following:

- ✓ Change password.
- ✓ Insert questions.
- $\checkmark$  Specify the answers.
- ✓ Update mark of questions and answers.

#### The Student can be done the following:

- ✓ Change password.
- ✓ Choose exam.
- ✓ Review answers.
- $\checkmark$  See his exam mark
- ✓ View other material.

## 6.4 Attempting Quiz:

Then click attempt quiz now,

€ Iocalhost:8080/mod/quiz/view.php?id=19	▼ C Search	☆ 自 ♥ 1
Stamfard University Bangladesh OQS	Мов	assharah Jannat Nadee 🛛 🐳 👻
COMPUTER NETWOR Dashboard / CN / Computer Networking quiz 01 / Sec	RKING tion 02 Quiz	
NAVIGATION	Section 02 Quiz	
■ Site home ■ Site pages	Grading method: Highest grade	
<ul> <li>✓ Current course</li> <li>✓ CN</li> <li>▶ Participants</li> </ul>	Attempt quiz now	
▶ Badges ▶ General ✓ Computer Networking quiz 01		
Section 1 Section 02 Quiz		
Demo 4 ► Assignments		
▶ Topic 3 ▶ Topic 4 ▶ My courses		Activate Windows Go to Settings to activat

Figure 6.4 - Attempting quiz

## 6.5 Questions for Related Quiz:

Select the Right Answer and press next

¢	Standard University Baugladesh OQS	Download thi	Nobassharah Jannat Nadee			
<b>(</b>	COMPUTER NETWORKING Dashboard / CN / Computer Networking quiz 01 / Section 02 Quiz / Preview					
G	QUIZ NAVIGATION         1       2       3       0       2       5       0       0       0         10       3       0       0       0       0       0       0       0         10       5       0       0       0       0       0       0       0         11       0       0       0       0       0       0       0       0         10       0       0       0       0       0       0       0       0         10       0       0       0       0       0       0       0       0         11       0       0       0       0       0       0       0       0         10       0       0       0       0       0       0       0       0         10       0 </th <th>Question 1 Not yet answered Marked out of 1.00 V Flag question Edit question</th> <th><ul> <li>Which of the following refers to the terms "residual error rate"?</li> <li>Select one:</li> <li>a. the probability that one or more errors will be detected when an error detection mechanism is used</li> <li>b. the number of bit errors per twenty four hours of continuous operation on an asynchronous line</li> <li>a. The probability that one or more errors will be undetected when an error detection</li> </ul></th>	Question 1 Not yet answered Marked out of 1.00 V Flag question Edit question	<ul> <li>Which of the following refers to the terms "residual error rate"?</li> <li>Select one:</li> <li>a. the probability that one or more errors will be detected when an error detection mechanism is used</li> <li>b. the number of bit errors per twenty four hours of continuous operation on an asynchronous line</li> <li>a. The probability that one or more errors will be undetected when an error detection</li> </ul>			
N D	AAVIGATION Dashboard Site home Site pages Current course		Scheme is used O d. signal to noise ratio divided by the ratio of energy per bit to noise per hertz Next			
	<ul> <li>▼CN</li> <li>▶ Participants</li> <li>▶ Badges</li> <li>▶ General</li> </ul>		Activat Go to Set			

Figure 6.5 - Computer networking quiz questions.

## 6.6 Summary of Attempt:

Cocalhost:8080/mod/quiz/summary.php?attempt=20		Q Search	☆ 自 ♥ ↓
	Section 02 Quiz		
	Summary of attempt		
-	Question	Status	
Finish attempt	1	Answer saved	
Start a new preview	2	Answer saved	
	3	Answer saved	
	4	Answer saved	
	5	Answer saved	
	6	Answer saved	
	7	Answer saved	
	8	Answer saved	
	9	Answer saved	
	10	Answer saved	
		Return to attempt	Activate Windows
		Submit all and finish	Go to Settings to activate W

Figure 6.6 - Summary of attempts are showing here

#### ☆ 自 ♥ 🗲) 🕙 localhost:8080/mod/quiz/summary.php?attempt=20 ▼ C Q Search QUIZ NAVIGATION Section 02 Quiz 2 3 Summary of attempt Question Status Finish attempt 1 Answer saved Start a new preview 2 Answer saved 3 Answer saved 4 nswer saved × Confirmation 5 nswer saved 6 nswer saved Once you submit, you will no longer 7 nswer saved be able to change your answers for this attempt. 8 nswer saved Submit all and finish Cancel 9 nswer saved 10 Answer saved Return to attempt Submit all and finish

## 6.7: Quiz Confirmation Notification:

Figure 6.7 - confirmations notifications

## 6.8 Final Quiz Report:

localhost:8080/mod/quiz/review.php?attempt=20		C Q Search	☆ 目	
Dashboard / CN / Computer Networking quiz 01 / Section	on 02 Quiz / Preview			
	Started on State Completed on Time taken Grade	Friday, 28 April 2017, 8:57 PM Finished Friday, 28 April 2017, 9:11 PM 13 mins 58 secs <b>1.00</b> out of 10.00 ( <b>10</b> %)		
Show one page at a time Finish review Start a new preview	Question 1 Incorrect Mark 0.00 out of 1.00 V Flag	Which of the following refers to the terms "residual error rate"? Select one:		
NAVIGATION Dashboard = Site home > Site pages ~ Current course ~ CN	Question	<ul> <li>a. Ine probability that one or more errors will be detected when an error detection mechanism is used</li> <li>b. the number of bit errors per twenty four hours of continuous operation on an asynchronous line X</li> <li>c. The probability that one or more errors will be undetected when an error detect scheme is used</li> <li>d. signal to noise ratio divided by the ratio of energy per bit to noise per hertz</li> </ul>	tion	
<ul> <li>Participants</li> <li>Badges</li> <li>General</li> <li>Computer Networking quiz 01</li> <li>Section 1</li> </ul>		Your answer is incorrect. The correct answer is: The probability that one or more errors will be undetected whe error detection scheme is used Activa Go to S	en an ate Wi	ndc to ac
V Section 02 Quiz	Question 2	Which of the following summation operations is performed on the hits to check an error	ror-	

Figure 6.8 - Final quiz reports

## **CHAPTER 7**

## CONCLUSION

## 7.1 Future Enhancements:

The main aim of this project is create a good interaction between the student and teacher:

- 1. We are trying to do the project at best level to satisfy all the end users.
- 2. In our future we are decided to provide more security to our website which may not be hacked.
- 3. And we give the choice to student to add their name under the faculty who they wish and get advice for their betterment.
- 4. It will be more empowering.

Next we are aiming to provide some online exams in to our website.

## 7.2 Conclusion:

This online quiz system provides facility to conduct online examination world wide. It saves time as it allows number of students to give the exam at a time and displays the results as the test gets over, so no need to wait for the result. It is automatically generated by the server. Administrator has a privilege to create, modify and delete the test papers and its particular questions. User can register, login and give the test with his specific id, and can see the results as well.

The project was successfully designed and is tested for accuracy and quality. During this project we have accomplished all the objectives and the developed will be used in searching, retrieving and generating information for the concerned requests. The system is operated at a high level of efficiency and all the teachers and users associated with the system understands its advantages.

The system solves the problem. It was intended to solve as requirements specifications.

## REFERENCES

[1] Aggarwal, K. K, and Yogesh Singh. Software Engineering. 1st ed. New Delhi: New Age International, 2008. Print.

[2] ayross, Ivan. Web Enabled Commercial Application Development. 4th ed. Bpb Publications, 2004. Print.

[3] Fei, Ming Ming, and Ma Yan. "The Online Examination System Of Distance Education". Applied Mechanics and Materials 411-414 (2013): 2901-2905. Web.

[4] "Online Examination Documentation | Test (Assessment) | Input/Output". Scribd. N.p., 2017.Web. 18 May 2017

[5] Omari, Asem. "An Evaluation And Assessment System For Online MCQ's Exams". International Journal of Electronics and Electrical Engineering 1.3 (2013): 219-222. Web.