**ABSTRACT**

Online examinations are an important method of evaluating the success potential of students. This research effort the individuals under consideration were students who would be enrolling in computer courses or Technologies Registrations. A prototype of a web-based placement examination system is described from the standpoint of the research effort, end user, and software development.

An on-line educational system including exam processing and electronic journal features. An instructor builds a course based questions which on-line contain in identification of assignments. Which are compiled into an on-line exam syllabus?

Users enrolled in the platform may access the electronic details they provided and perform various functions with the on-line educational system in order to participate in the on-line examinations. Users can receive an on-line exam, having multimedia content, for the course, and they can electronically provide answers for the exam. And after Completion of their duration of exam they are provided the grade or marks secured in their examinations.

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CHAPTER-1

# INTRODUCTION

## 1.1 Database

A database is an organized collection of data. A relational database, more restrictively, is a collection of schemas, tables, queries, reports, views, and other elements. Database designers typically organize the data to model aspects of reality in a way that supports processes requiring information, such as (for example) modeling the availability of rooms in hotels in a way that supports finding a hotel with vacancies.

A database is not generally portable across different DBMSs, but different DBMSs can interoperate by using standards such as SQL and ODBC or JDBC to allow a single application to work with more than one DBMS. Computer scientists may classify database-management systems according to the database models that they support; the most popular database systems since the 1980s have all supported the relational model – generally associated with the SQL language. HB Sometimes a DBMS is loosely referred to as a “database”.

## 1.2 Database Management System

A database-management system (DBMS) is a collection of interrelated data and a set of programs to access those data. This is a collection of related data with an implicit meaning and hence is a database. The collection of data, usually referred to as the database, contains information relevant to an enterprise. The primary goal of a DBMS is to provide a way to store and retrieve database information that is both convenient and efficient as shown in figure 1.1 By data, we mean known facts that can be recorded and that have implicit meaning. For example, consider the names, telephone numbers, and addresses of the people know. May have recorded this data in an indexed address book, or may have stored it on a diskette, using a personal computer and software such as DBASE IV or V, Microsoft ACCESS, or EXCEL. While information can be transported, stored or shared without many difficulties the same cannot be said about knowledge.

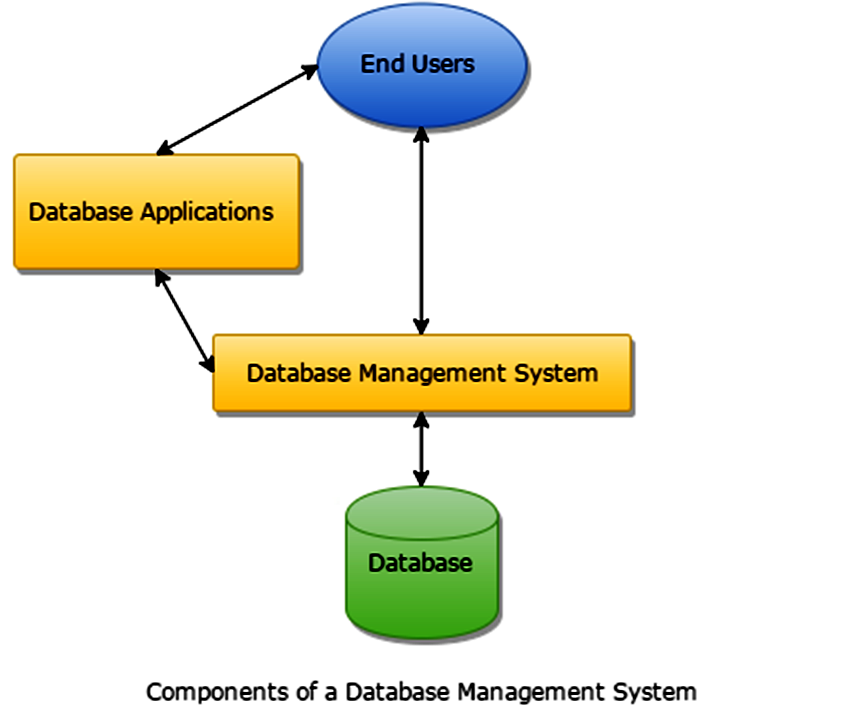
­­­­­

Figure 1.1: DBMS Component

## 1.3 HTML

HTML stands for Hyper Text Markup Language. HTML is the standard markup language for creating Web pages. HTML describes the structure of a Web page. HTML consists of a series of elements. HTML elements tell the browser how to display the content. HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.

## CSS

CSS stands for Cascading Style Sheets.

CSS is the language we use to style an HTML document.CSS describes how HTML elements should be displayed. CSS describes how HTML elements are to be displayed on screen, paper, or in other media. CSS saves a lot of work. It can control the layout of multiple web pages all at once. External style sheets are stored in CSS files

* 1. **PHP**

PHP is an acronym for **"PHP: Hypertext Preprocessor"**

PHP is a server scripting language, and powerful tool for making dynamic and interactive web pages.

PHP is a widely-used, open source scripting language

PHP scripts are executed on the server

PHP is free to download and use

PHP files can contain text, HTML, CSS, JavaScript, and PHP code

PHP code is executed on the server, and the result is returned to the browser as plain HTML

PHP files have extension ".php"

* 1. **JavaScript**

JavaScript is a text-based programming language used both on the client-side and server-side that allows you to make web pages interactive. Where HTML and CSS are languages that give structure and style to web pages, JavaScript gives web pages interactive elements that engage a user.

JavaScript is a programming language that adds interactivity to your website. This happens in games, in the behavior of responses when buttons are pressed or with data entry on forms; with dynamic styling; with animation, etc.

* 1. **MySQL**

MySQL is a freely available open source Relational Database Management System (RDBMS) that uses Structured Query Language (SQL). SQL is the most popular language for adding, accessing and managing content in a database. It is most noted for its quick processing, proven reliability, ease and flexibility of use.

MySQL is a relational database management system based on SQL – Structured Query Language. ... The most common use for mySQL however, is for the purpose of a web database. It can be used to store anything from a single record of information to an entire inventory of available products for an online store.

## 1.8 Introduction to Project

“Online Examination Management System” is a web application. This system is developed to automate the examination process.

Online examinations are an important method of evaluating the success potential of students. This research effort the individuals under consideration were students who would be enrolling in computer courses or Technologies Registrations. A prototype of a web-based placement examination system is described from the standpoint of the research effort, end user, and software development.

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Users enrolled in the platform may access the electronic details they provided and perform various functions with the on-line educational system in order to participate in the on-line examinations. Users can receive an on-line exam, having multimedia content, for the course, and they can electronically provide answers for the exam. And after Completion of their duration of exam they are provided the grade or marks secured in their examinations.

Online examinations contents providers to focus on creating effective assessment questions and focusing on exam’s feedback delivery to students.

In the paper we present techniques that are pertinent to the elements of assessment process: answers submission, computerized grading, and feedback after submission. As the modern organizations are automated and computers are working as per the instructions, it becomes essential for the coordination of human beings, commodity and computers in a modern organization. The administrators, instructor, Students who are attending for online examination can communicate with the system through these projects, thus facilitating effective implementation and monitoring of various activities of Online Examinations like conducting Exams as per scheduled basis and delivering result to that particular use or student. And the details of students who attempted Online Examination are maintained at administrator.

## Technologies

**1.9.1 Hardware Requirements:-** Pentium-IV(Processor). 256 MB Ram512 KB Cache MemoryHard disk 10 GB Microsoft Compatible 101 or more Key Board

**1.9.2 Software Requirements: -**Operating System: WindowsWeb-Technology: PHPFront-End: HTML, CSS, and JAVASCRIPTBack-End: MySQLWeb Server: Apache SERVER.

CHAPTER-2

# LITERATURE SURVEY

## 2.1 Related Work

Many different researches have focused on the subject of an online examination system these work can be represented as following: SIETTE: Guzman and Conejo (2005) proposed an online examination system called System of Intelligent Evaluation using Tests for Tele-education (SIETTE). SIETTE is a web-based environment to generate and construct adaptive tests. It can be used for instructional objectives, via combining adaptive student self-assessment test questions with hints and feedback. SIETTE supports secure login and portability features. On the other hand, the other features: resumption capability, multi-instructor, random question selection, random questions distribution and random choices distribution are missing. EMS: Rashad Et. Al. (2010) proposed a web-based online examination system called Exam Management System (EMS). EMS manages the examination and auto-grading for student’s exams and supports conducting exams, collects the answers, auto mark the submissions, and produce the reports for the test. EMS supports secure login, multi-instructor, and portability features. However, the other features: resumption capability, random question selection, random questions distribution, and random choices distribution are missing. ArvindSingh, Niraj,Shirke, KiranShette 2011:The project evaluates the examiners by using the online examination system concept. The exams will be totally customizable. This system will check results automatically basing on students answers. CBTS: Fagbola et. al. (2013) developed a Computer Based Test System (CBTS). CBTS is a web-based online examination system developed to address issues such as lack of timing flexibility for automation candidates log-off upon expiration of allowed time, result integrity, guaranty, stand-alone deployment, need for flexibility, robustness, designed to support the examination processes and overcome challenges framing the conduct of examination, auto- marking, auto- submission , and generation report of examination result.

## 2.2 Summary of Literature Review

The literature Survey that we look as a background motivation to carry our work is summarized below in table: -

Table 2. : Literature Survey Summary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No. | Author and Work | Published Date | Methodology | Drawbacks |
| 1. | Guzman and conejo | 2005 | Test for tele-education | Susceptiable to cheating |
| 2. | Rashad Et. al | 2010 | Auto grading | Difficulty of analysing the grade |
| 3. | Arvind singh and Niraj Shirke | 2011 | Customizable and evaluates automatically | Difficulty in grading long anser type |
| 4. | Fagbola et. al | 2013 | CBTS(computer Based Test System) | Advanced computer with internet are required |
| 5. | Adam fransis | 2019 | Automically questions acording to user interest | Difficulty to find the users interest. |

CHAPTER-3

**DESIGN**

**3.1 Introduction**

Design is the first step in the development phase for any techniques and principles for the purpose of defining a device, a process or system in sufficient detail to permit its physical realization. Once the software requirements have been analyzed and specified the software design involves three technical activities - design, coding, implementation and testing that are required to build and verify the software.

The design activities are of main importance in this phase, because in this activity, decisions ultimately affecting the success of the software implementation and its ease of maintenance are made. These decisions have the final bearing upon reliability and maintainability of the system. Design is the only way to accurately translate the customer’s requirements into finished software or a system. Design is the place where quality is fostered in development. Software design is a process through which requirements are translated into a representation of software. Software design is conducted in two steps. Preliminary design is concerned with the transformation of requirements into data.

**3.2 Existing System**

Existing system is a manual one in which users are maintaining books to store the information like Student Details, Instructor Details, Schedule Details and feedbacks about students who attempted exam as per schedule.. It is very difficult to maintain historical data.

**DISADVANTAGES:**

The following drawbacks of existing system emphasize the need for computerization:

1. A lot of copies of question papers have to be made.

2. A lot of correction work hence delay in giving the results.

3. A lot of tabulation work for each subject results.

**3.3 Proposed System**

This application is used to conduct online examination. The students can sit at individual terminals and login to write the exam in the given duration. . The questions have to be given to the students. This application will perform correction, display the result immediately and also store it in database. This application provides the administrator with a facility to add new exams. This application provides the Instructor add questions to the exam, modify questions in the exam in a particular exam. This application takes care of authentication of the administrator, Instructor as well as the student.

**3.4 Objective of the System**

The objective of the Online Examination Tool is to provide better information for the users of this system for better results for their maintenance in student examination schedule details and grading details.

**3.5 Component**

* **Admin Module**
  + **Register**

To be authenticated first you have to be registered.

* + **Login**

Registered user can be allowed to view inner details for which they are permitted.

* + **Adding and removing the questions**

Admin can add and remove the question to the respected subjects according to the requirement.

* **Student Module**
  + **Register/Login**

To be able to give exam student first need to register them. Old student can simply login**.**

* + **Choose subject**

Student can choose the subject according to their interest for examination.

* + **Ranking**

Student can check their history and ranking of the class.

* + **Sign out**

Student can sign out if the want to leave the exam.

CHAPTER-4

**IMPLEMENTATION**

**4.1 Introduction**

Implementation is the stage where the theoretical design is turned into a working system. The most crucial stage in achieving a new successful system and in giving confidence on the new system for the users that it will work efficiently and effectively.

The system can be implemented only after thorough testing is done and if it is found to work according to the specification.

It involves careful planning, investigation of the current system and its constraints on implementation, design of methods to achieve the change over and an evaluation of change over methods a part from planning. Two major tasks of preparing the implementation are education and training of the users and testing of the system.

The more complex the system being implemented, the more involved will be the systems analysis and design effort required just for implementation.

The implementation phase comprises of several activities. The required hardware and software acquisition is carried out. The system may require some software to be developed. For this, programs are written and tested. The user then changes over to his new fully tested system and the old system is discontinued.

**4.2 ER Diagram**

Admin

Manages

Exam

Appears

Student

Subjects

has

has

Questions

Generate results

Result

Stored in

in

Ranking

**4.3 Tables**

* **User register table**

|  |  |  |  |
| --- | --- | --- | --- |
| NAME | NULL/NOTNULL | TYPE | KEY |
| ID | NOTNULL | INT | PRIMARYKEY |
| NAME | NULL | VARCHAR(50) |  |
| DOB | NULL | DATETIME |  |
| GENDER | NULL | VARCHAR(10) |  |
| BRANCH | NULL | VARCHAR(20) |  |
| COLLEGE | NULL | VARCHAR(50) |  |
| UID | NULL | VARCHAR(50) |  |
| PWD | NULL | VARCHAR(20) |  |
| RPWD | NULL | VARCHAR(20) |  |
| UTYPE | NULL | VARCHAR(20) |  |
| QUE | NULL | VARCHAR(500) |  |
| ANS | NULL | VARCHAR(500) |  |

* **Question Table**

|  |  |  |  |
| --- | --- | --- | --- |
| NAME | NULL/NOTNULL | TYPE | KEY |
| ID | NOTNULL | INT | PRIMARYKEY |
| QUE | NULL | VARCHAR(500) |  |
| AW | NULL | VARCHAR(500) |  |

* **Answer Table**

|  |  |  |  |
| --- | --- | --- | --- |
| NAME | NULL/NOTNULL | TYPE | KEY |
| ID | NOTNULL | INT | FOREIGNKEY |
| AW | NULL | VARCHAR(500) |  |

* **Student Marks Table**

|  |  |  |  |
| --- | --- | --- | --- |
| NAME | NULL/NOTNULL | TYPE | KEY |
| ID | NULL | INT |  |
| MARKS | NULL | INT |  |

* **Exam Schedule Table**

|  |  |  |  |
| --- | --- | --- | --- |
| NAME | NULL/NOTNULL | TYPE | KEY |
| ENAME | NULL | VARCHAR(30) |  |
| EDATE | NULL | DATETIME |  |

**4.4 Sample Code**

* **Admin.php**

This page is the admin page. The codes are as follows:-

<?php

include\_once 'dbConnection.php';

$ref=@$\_GET['q'];

$email = $\_POST['uname'];

$password = $\_POST['password'];

$email = stripslashes($email);

$email = addslashes($email);

$password = stripslashes($password);

$password = addslashes($password);

$result = mysqli\_query($con,"SELECT email FROM admin WHERE email = '$email' and password = '$password'") or die('Error');

$count=mysqli\_num\_rows($result);

if($count==1){

session\_start();

if(isset($\_SESSION['email'])){

session\_unset();}

$\_SESSION["name"] = 'Admin';

$\_SESSION["key"] ='sunny7785068889';

$\_SESSION["email"] = $email;

header("location:dash.php?q=0");

}

else header("location:$ref?w=Warning : Access denied");

?>

* **Feed.php**

The page includes the codes for feedback form. The codes are as follows:-

<?php

include\_once 'dbConnection.php';

$ref=@$\_GET['q'];

$name = $\_POST['name'];

$email = $\_POST['email'];

$subject = $\_POST['subject'];

$id=uniqid();

$date=date("Y-m-d");

$time=date("h:i:sa");

$feedback = $\_POST['feedback'];

$q=mysqli\_query($con,"INSERT INTO feedback VALUES ('$id' , '$name', '$email' , '$subject', '$feedback' , '$date' , '$time')")or die ("Error");

header("location:$ref?q=Thank you for your valuable feedback");

?>

CHAPTER 5

**TESTING**

This is the process of confirming whether the new system is working according to the specification. Testing and tails are pertinent in this system, because it will minimize or eliminate the errors in an online shopping system. This test will show exactly the type of problems develop in the system in the processing of data and would also indicate any problem in the respond time of the system.

The process of testing the system is to defect errors and debug them before it is delivered, installed and made operational errors including bugs that cause system not to work according to specifications. Effective software testing will contribute to the delivery of higher quality software products, more satisfied users, and lower maintenance costs, more accurate and reliable results.

**5.1 Structural Testing**

Structural Testing takes into account the internal mechanism of a system or component. Fatigue Testing is carried out with the objective of determining the relationship between the stress range and the number of times it can be applied before causing failure. So when your product’s structural durability needs to be predicted, verified and validated, turn to DTB's Structural Testing and Fatigue Testing experts. We provide you with the necessary structural testing and fatigue testing equipment and personnel to test the design and manufacturing integrity of your product. Call upon our vast experience in commercial and military applications.

Software Structural Testing is a 2-day course designed to provide an excellent knowledge base and practical skills for anyone interested in improving Software Structural Testing techniques and practices in their organization. This course starts with an overview of software testing basics, including discussions of the importance of software testing, the different levels of testing and basic testing principles. Basic testing terminology is defined. Techniques for ensure test coverage of requirements, different types of testing documentation and various test activities are discussed. Course attendees will learn how to utilize various techniques for performing systematic structural testing, including decision/condition coverage, loop testing and basis path testing. Strategies for performing software and system integration testing are also covered.

**5.2 Functional Testing**

It is very useful and convenient in support of functional testing. Although JMeter is known more as a performance testing tool, functional testing elements can be integrated within the Test Plan, which was originally designed to support load testing. Many other load-testing tools provide little or none of this feature, restricting themselves to performance-testing purposes. Besides integrating functional-testing elements along with load-testing elements in the Test Plan, you can also create a Test Plan that runs these exclusively. In other words, aside from creating a Load Test Plan, it also allows you to create a Functional Test Plan. This flexibility is certainly resource-efficient for the testing project.

This will give a walkthrough on how to create a Test Plan as we incorporate and/or configure its elements to support functional testing. This created a Test Plan for a specific target web server. We will begin the chapter with a quick overview to prepare you with a few expectations; we will create a new Test Plan, only smaller. The Test Plan we will create and run at the end of this chapter will incorporate elements that support functional testing, exclusively.

**5.3 Methods Used For Testing**

1. **Acceptance Testing**

The objective of this step is to produce a set of test data that may be used to test the system. Whenever a new system is developed it need to be tested to confirm its validity and to determine whether it meets the user requirements. The system was also tested with some sample records. The records were entered into the system and various reports were generated to check the system.

System testing is a critical phase of implementation. Testing of the system involves hardware devices and debugging of computer programs and testing information processing procedures. Testing can be done with test data, which attempt to simulate all possible condition that may rise during processing. The testing methods adopted during the testing of system are unit testing and integration testing.

1. **Unit Testing**

Unit testing focuses on the modules independently locate the errors. This enables the tester to detect errors in coding. It is the process of taking a module and running it in isolation from rest of the software product by using prepared test cases and comparing the actual result with the result redirected with the specifications and design of the module. One purpose of testing is to find and remove as many errors in the software as practical. There are number of reason in support of unit testing-:

* The size of module single module is small that we can locate an error fairly easily.
* The module is small enough that we can attempt to test it in some demonstrably exhaustive fashion.
* Confusing interactions of multiple errors in widely different parts of software are eliminated.

1. **Integration Testing**

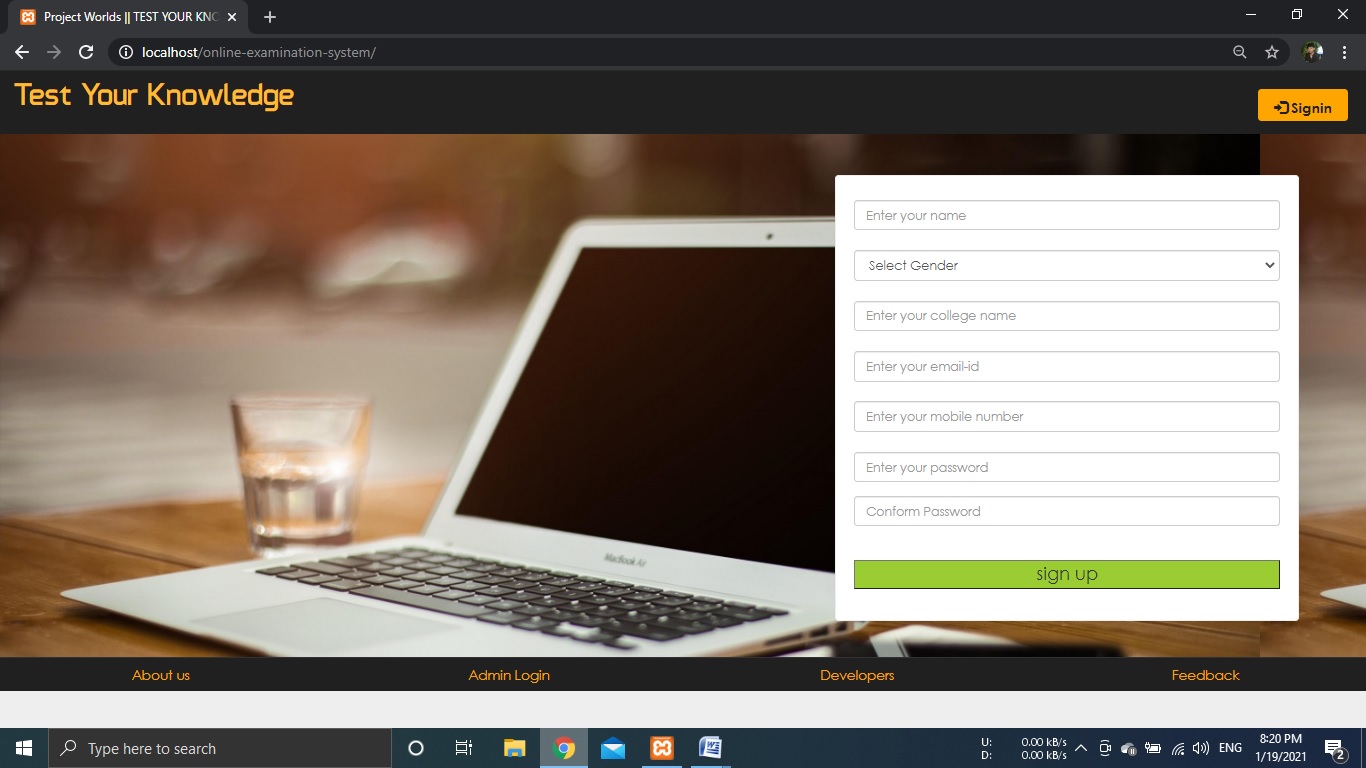
This is a systematic technique for constructing the program structure while at the same time to uncover the errors associated with the interface. The objective is to take unit tested module and build a program structure that has been detected by designing. The main purpose of integration testing is to determine that the interfaces between modules are correct or not. One specific target of integration testing is the interface: whether parameter matches on both sides as to type, permissible ranges, meaning & utilization. There are 3 types of integration testing-:

* Top-DownApproach:Top-Down integration proceeds down the invocation hierarchy, adding one module at a time until an entire tree level is generated.
* Bottom-Up Approach:The Bottom-up strategy works similarly from the bottom to up.
* Sandwich Strategy:A sandwich strategy runs from top and bottom simultaneously.

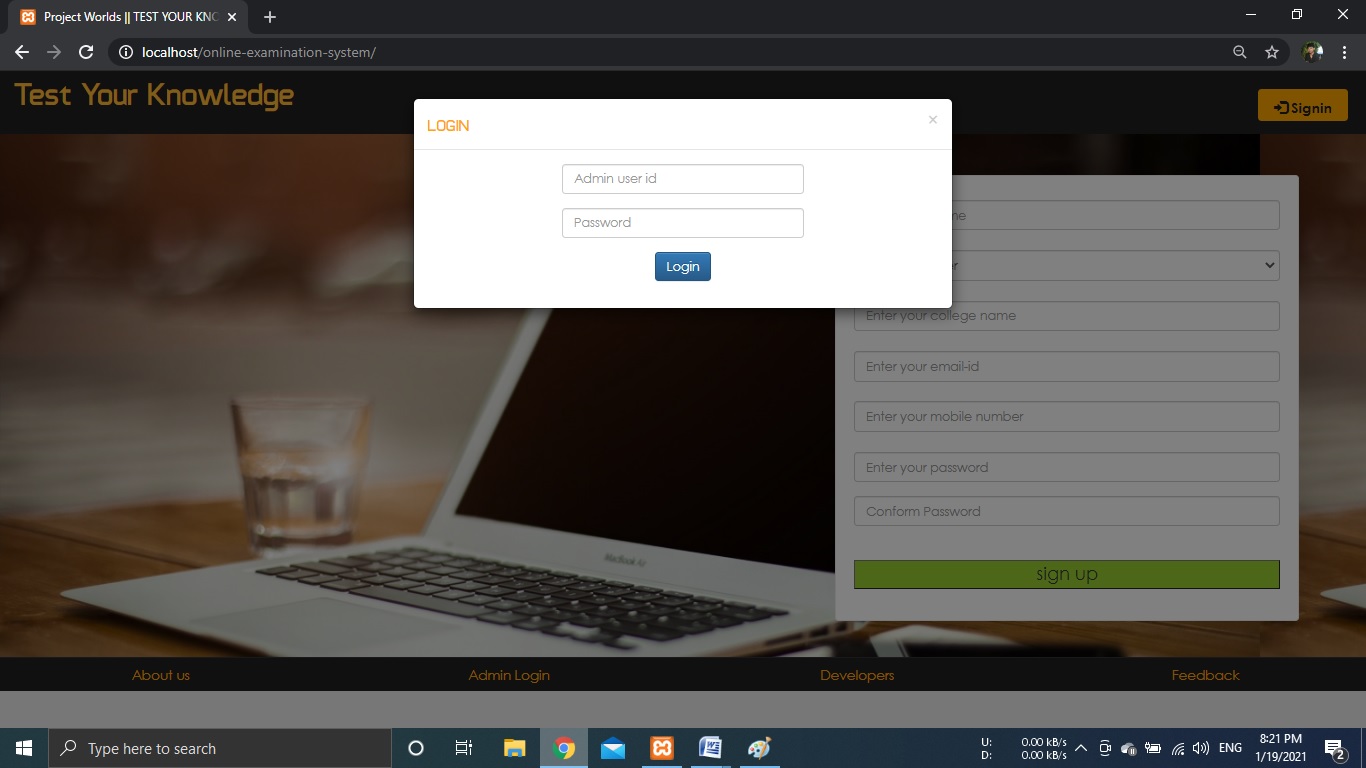
**Chapter 6**

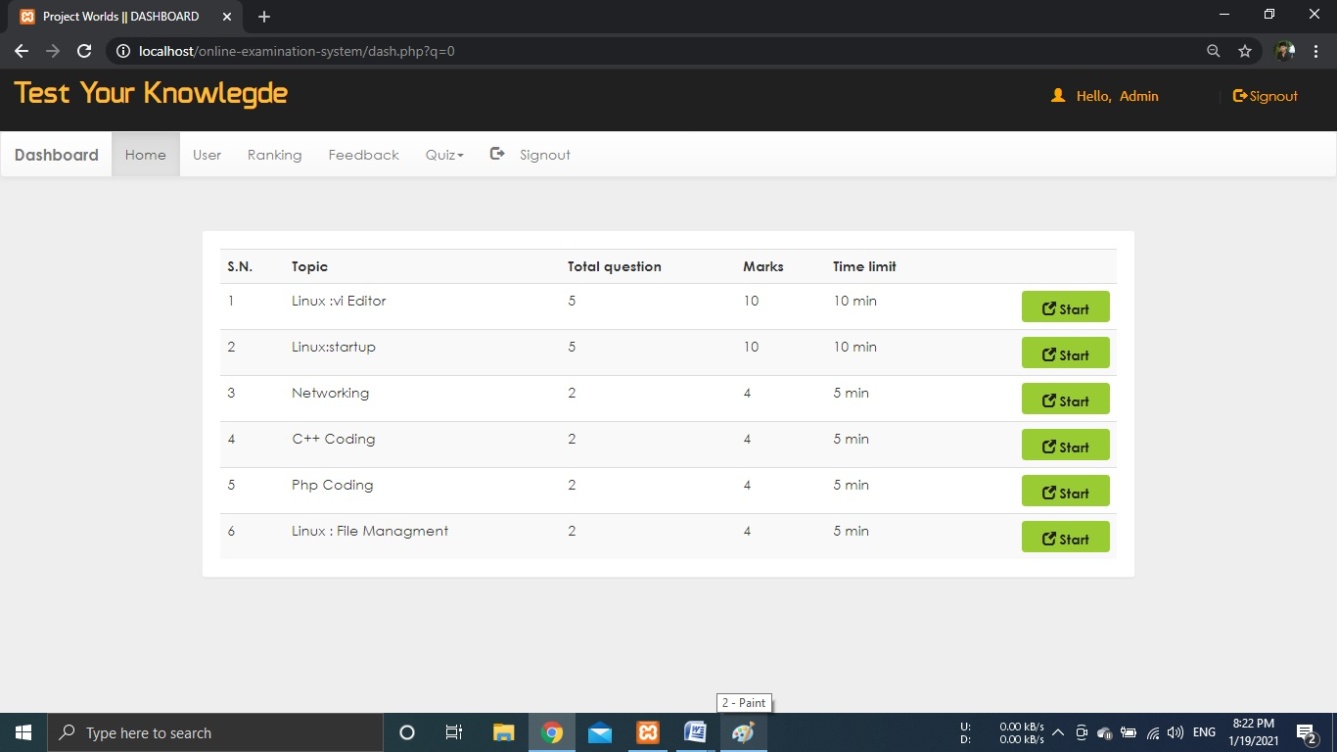
**SNAPSHOTS**

**6.1 Home Page**

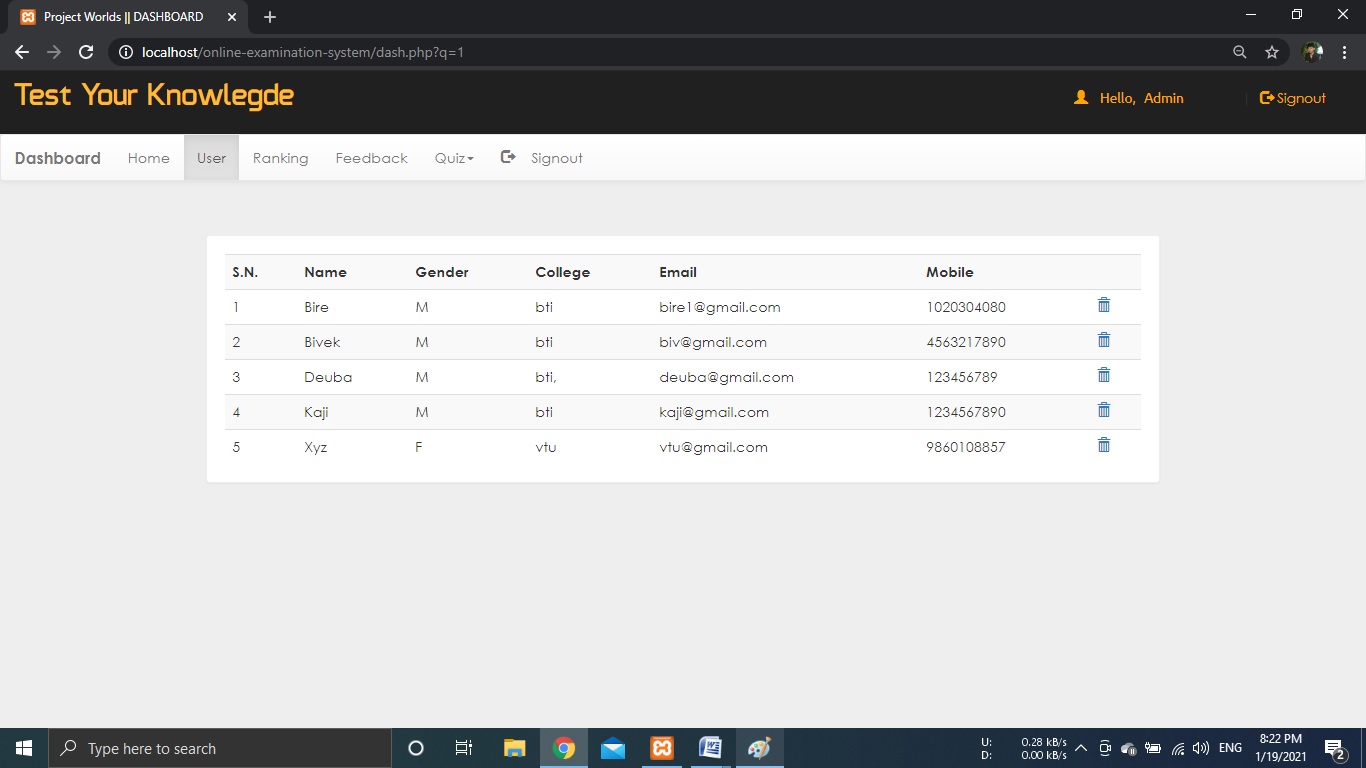
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**6.2 Admin Login**

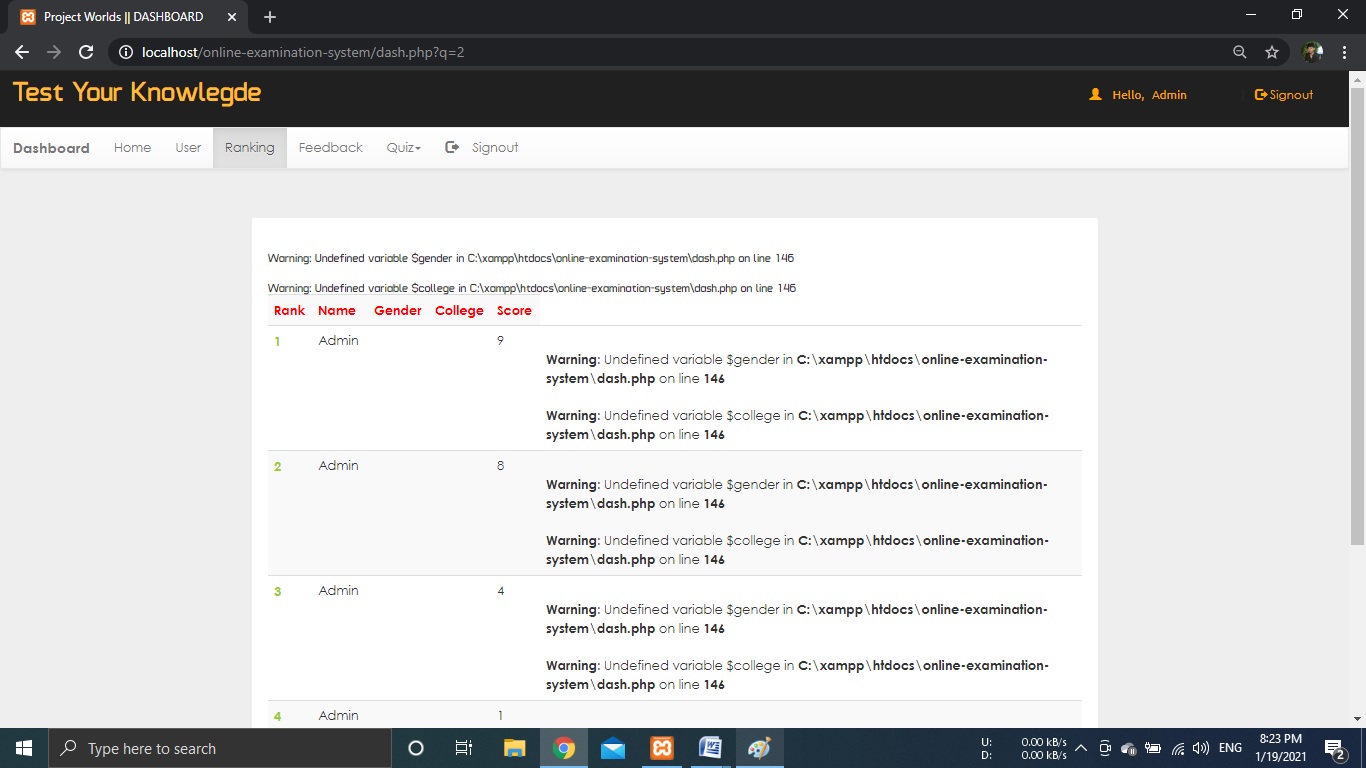
****

**6.3 Dashboard Homepage**

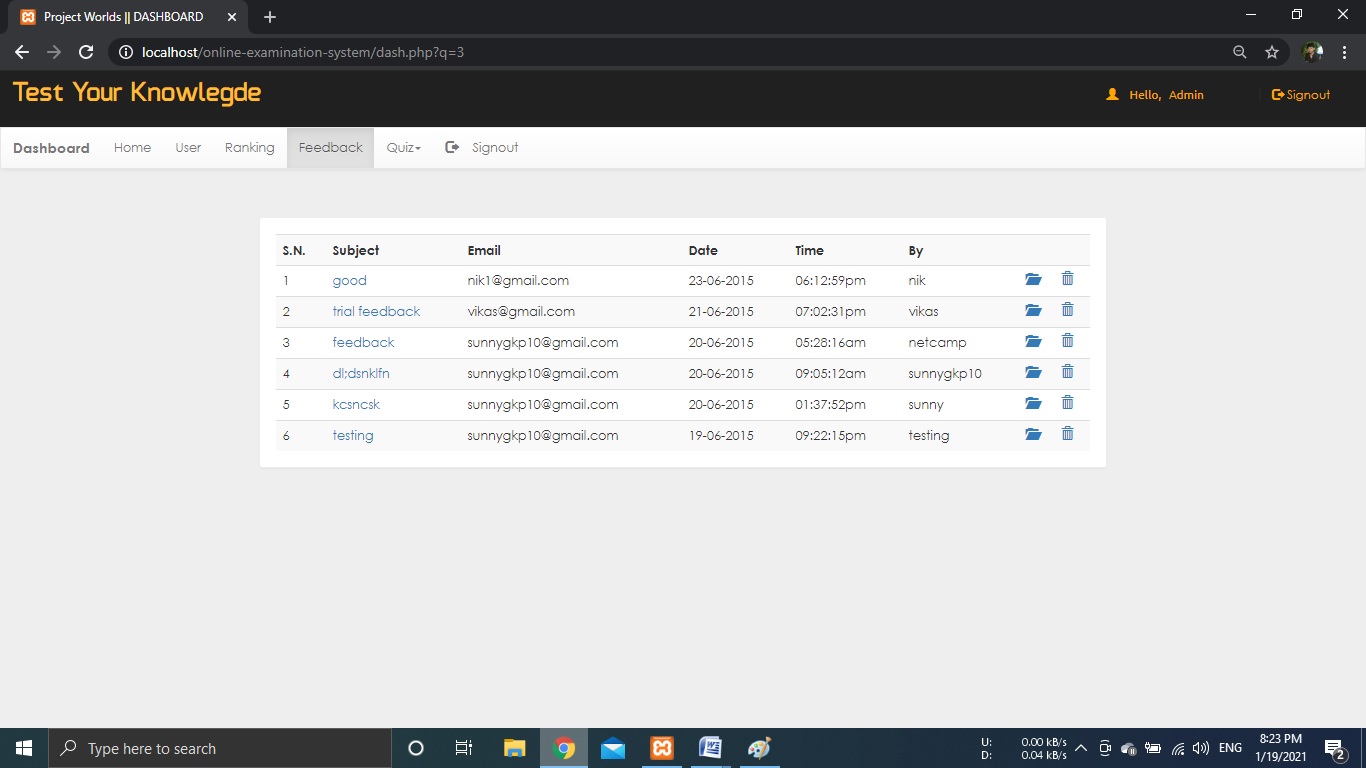
**6.4 User Viewing Page**

****

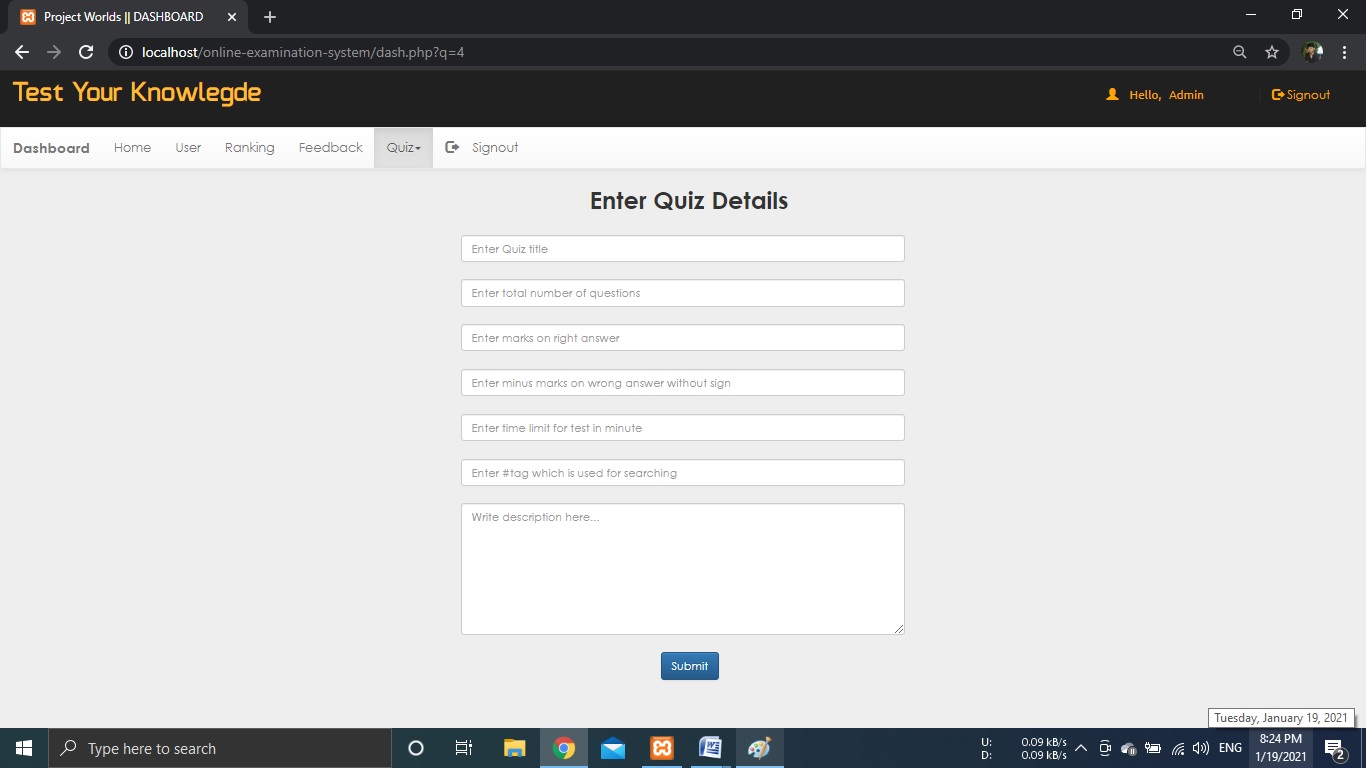
**6.5 Raking Page**

****

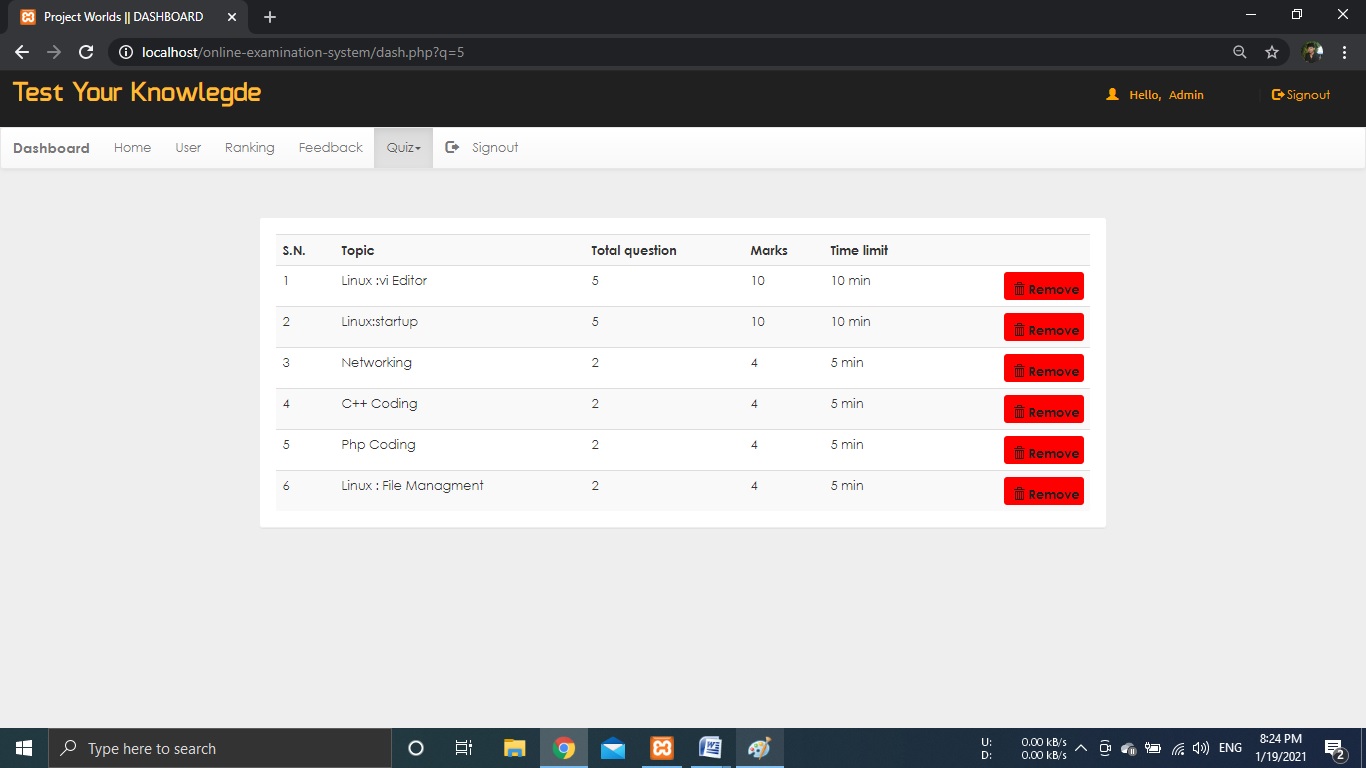
**6.6 Feedback Page**

****

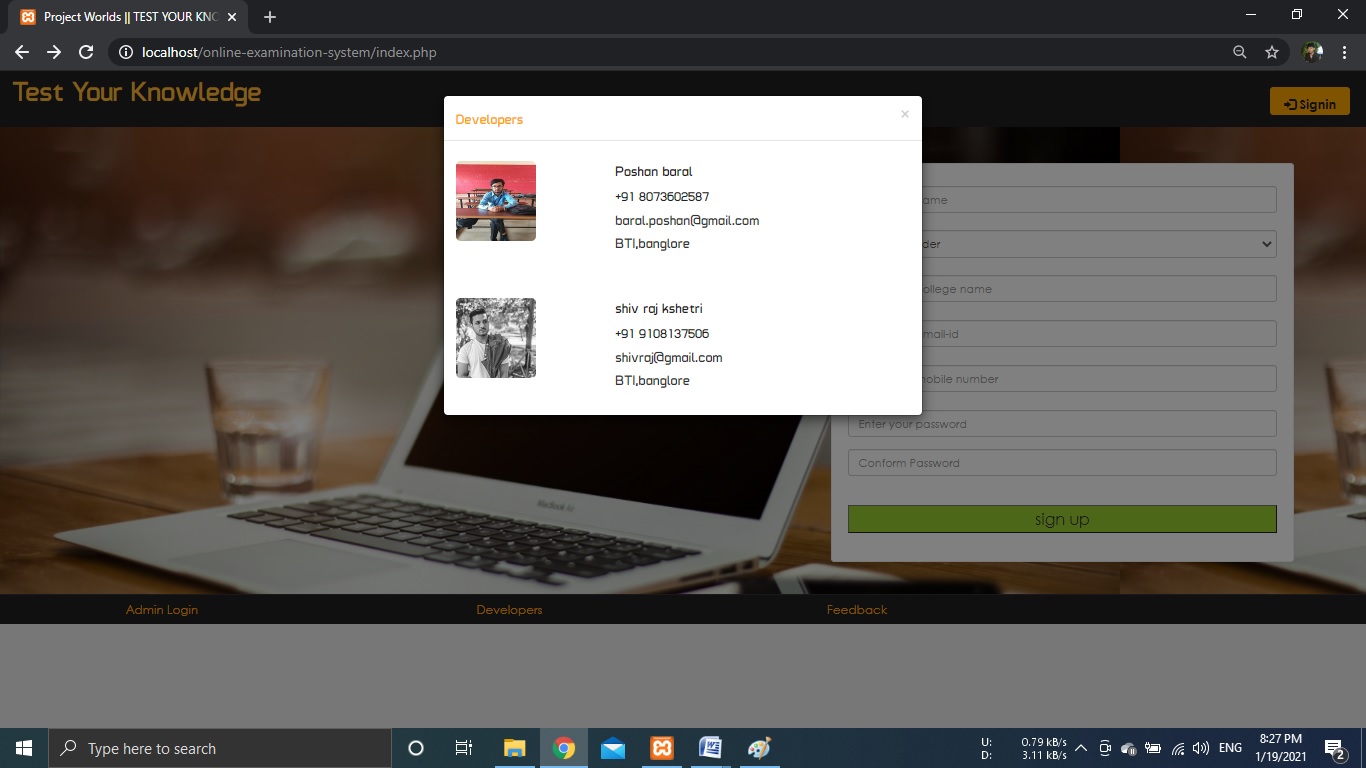
**6.7 Quiz Adding Page**

****

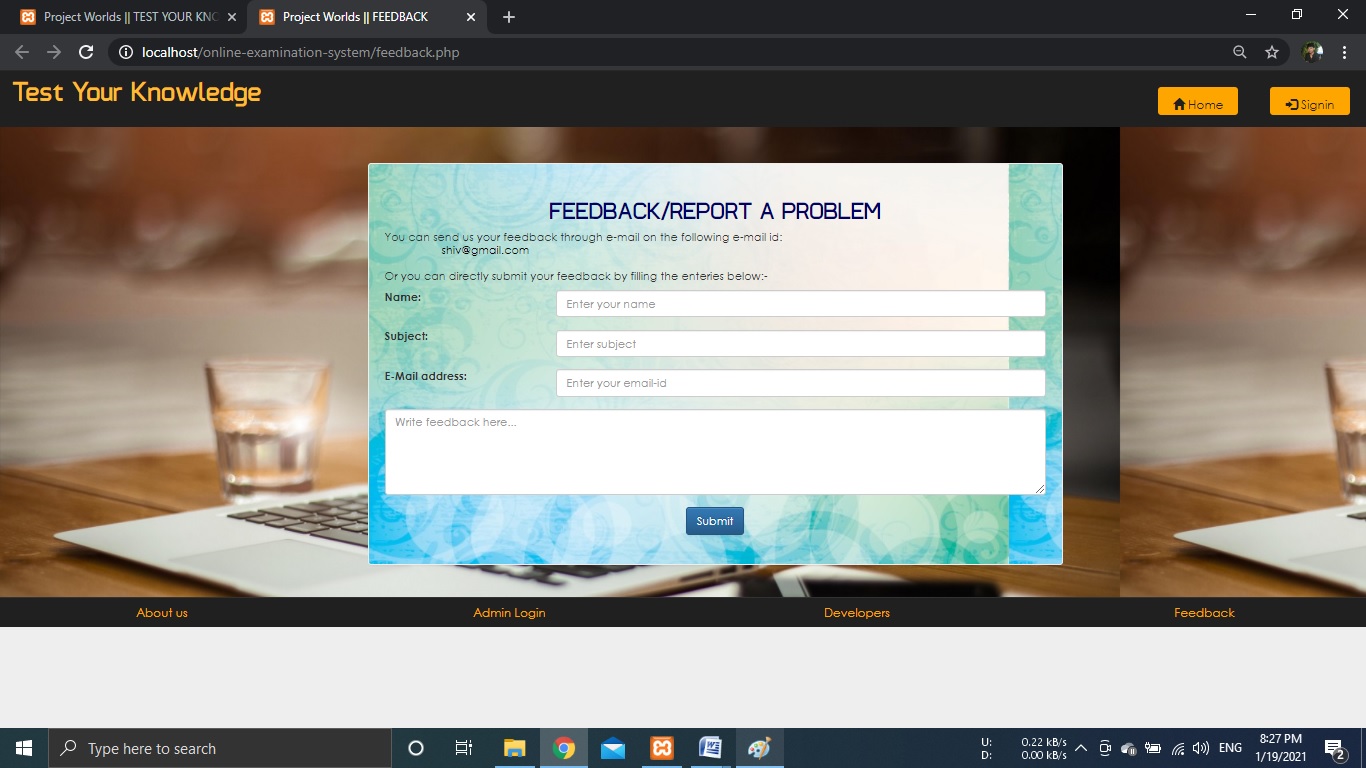
**6.8 Quiz Removing Page**

****

**6.9 Developer Detail Page**

****

**6.10 Feedback Form Page**

****

**Chapter 7**

**CONCLUSION**

The package was designed in such a way that future modifications can be done easily. The following conclusions can be deduced from the development of the project.

* + Automation of the entire system improves the efficiency
  + It provides a friendly graphical user interface which proves to be better when compared to the existing system.
  + It gives appropriate access to the authorized users depending on their permissions.
  + It effectively overcomes the delay in communications.
  + Updating of information becomes so easier.
  + System security, data security and reliability are the striking features.
  + The System has adequate scope for modification in future if it is necessary.

**FUTURE ENHANCEMENTS**

This application avoids the manual work and the problems concern with it. It is an easy way to obtain the information regarding the different scheduled examinations information that is currently issued.Well I and my team members have worked hard in order to present an improved website better than the existing one’s regarding the information about the various activities. Still, we found out that the project can be done in a better way. Primarily, when we request information about a particular schedules it just shows the exam date and platform. So, after getting the information we can get access to the online exam.

The enhancement that we can add the searching option. We can directly search to the particular student details from this site.

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