

A

PROJECT REPORT

ON

“ONLINE EXAMINATION SYSTEM”
SUBMITTED TO

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE GWALIOR (M.P.)
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute, Estd. 1957)



IN PARTIAL FULFILLMENT FOR THE AWARD OF DEGREE
OF
BACHELOR OF ENGINEERING
IN
COMPUTER SCIENCE AND ENGINEERING

2019-2020

UNDER THE GUIDANCE OF

PROF. JAIMALA JHA
(ASSISTANT PROFESSOR)

SUBMITTED BY

ROHIT KUMAR NAMDEV (090CS161098)
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**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING AND
INFORMATION TECHNOLOGY**

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE GWALIOR (M.P.)
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DECLARATION

The Project report Titled “**ONLINE EXAMINATION SYSTEM**” which is being submitted in the partial fulfillment of the requirement of award of Bachelor of Engineering in Computer Science , is a record of own work carried by me under the supervision of Project Guide Prof. JAI MALA JHA.

To the best of my knowledge, the presented project report has not been submitted for the award of any other diploma or degree certificate.

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CERTIFICATE

This is to certify that Rohit Kumar Namdev, Devkee Prasad & Vishnu Kant Mishra students of Bachelor of Engineering, Computer Science, of Madhav Institute of Technology & Science, Gwalior have completed their Final Semester project entitled "**Online Examination System**". They have submitted a satisfactory project report for the award of Degree of Bachelor of Engineering in Computer Science.

To the best of my knowledge, the presented project report has not been submitted for the award of any other diploma or degree certificate.

Under the Guidance of:

GUIDE BY

(PROF. JAIMALA JHA)

DEPT.OF CSE & IT

CORDINATOR

DR. MANISH DIXIT

APPROVED BY

(DR. AKHILESH TIWARI)

PROFESSOR & HOD

DEPT.OF CSE & IT

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING AND IT

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.)
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ACKNOWLEDGEMENT

Preparing any project requires views of many people but we suspect that technical projects are more different than others. A great many people are involved in various stages of the project preparation who shared their knowledge and experience.

Before we get into thick of things we would like to add a few heartfelt words for the people who are part of this project in numerous ways people who gave un-ending support right from the stage idea was conceived.

It is our proud privilege to express a deep sense of gratitude and regard to our Project Guide Prof. JAIMALA JHA (Dept. Of Computer Science & Engineering and IT) for the opportunity, he has given us for carrying out the project. His initiative, keen interest, expert guidance at every step provided a constant source of inspiration and encouragement to us for intense studies in the subject. We are deeply indebted to him.

We shall be failing in our duty, if we do not express our heart-felt gratitude to Dr. Akhilesh Tiwari, Professor & Head Department Of Computer Science & Engineering and IT, M.I.T.S. Gwalior for his support in the project.

We acknowledge with gratitude the benediction of our institution and Director, MITS, Dr.R.K.Pandit, who extended all facilities and co-operation in the completion of this project.

NAME OF STUDENT

ROHIT KUMAR NAMDEV(0901CS161098)
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CONTENTS

1. INTRODUCTION

- **Proposed System**
- **Problem Identification**
- **Objective**
- **Hardware & Software Specifications**

2. Language & Tools used

2.1 Front End

- **HTML**
- **CSS**
- **Java Script**

2.2 Back End

- **MYSQL**
- **php**

2.3 Tool

- **Sublime Text**
- **Chrome Browser, Internet explorer etc.**

3. SYSTEM REQUIREMENT

4. WORKING

5. SYSTEM DESIGN

- **Data Flow Diagrams**
- **Entity Relationship Diagram**
- **Use Case Diagram**

7. TESTING

8. CONCLUSION

INTRODUCTION

This document will propose all features and procedures to develop the system. This documentation specially contain details about objectives, scope, design model, primary requirements and finally monitoring and reporting mechanisms.

Online Examination System is very useful for Educational Institute to prepare an exam, save the time that will take to check the paper and prepare mark sheets. It will help the Institute to test students and develop their skills. But the disadvantages of this system is that it takes a lot of time when you prepare the exam for the first time for usage. And we need a number of computers equal to the same number of students taking the exam.

The effective use of "Online Examination System" is that any Educational Institute or training centers can use it to develop their strategy for conducting exams, and for getting better results in less time.

Online Examination is being launched because a need for a destination that is beneficial for both Institutes and students. With this site, institutes can host online exams. Students can takes exams and view their results. This site is an attempt to remove the existing flaws in the manual system of conducting exams. The project will enable educational institutes to conduct test and have automated checking of answers based on the response by the candidates.

Proposed System:

Required software is for conducting online examination and providing results. The system should satisfy the following requirements:

User Requirements.

- **Administrator Aspect**
 1. Logging into the system.
 2. Sending result to specific student.
 3. Accepting registrations of candidates.
 4. Adding/editing/deleting the questions.
 5. Creating questions.
 6. Posting questions.

7. Posting multiple options to respective question.
8. Marking correct answer within the given options.
9. Time limit of the questions if any.
10. Set marks.

- **Student Aspect:**

1. Requesting registration.
2. Logging into the system.
3. Selecting the questions.
4. Appearing for the examination.
5. Reviewing the given responses.

- **Analysis**

1. Authenticating users based on username and password
2. Recording candidates' responses to every question.
3. Checking whether the given response is correct or not.
4. Keeping history of mark reports of all users
5. The reports are required to be sent to the candidates.
6. Invitations/report for the appearance for the new test will be posted.

Hardware Interfaces

Server side hardware

- Hardware recommended by all the software needed.
- RAM: 256 Mb or more
- Hard Drive: 10 GB or more
- Communication hardware to serve client requests

Client side hardware

- Hardware recommended by respective client's operating system and web browser.
- RAM: 256 Mb or more
- Communication hardware to communicate the server.

Problem Definition

Online Examination is very helpful to users. The aim of this project is to provide quick, immediate and easy way to appear the exam. It can provide special advantages to the students/applicants. The online examination system can automatically add the marks allocated in each question to determine the total mark for the questions. A time limit can be set for the questions. Online Examination System allows jumping to specific questions based on the previous answer. The online examination system limits the number of times a student can write a question. Login module helps the user to login to the site. For that he/she must type the username and password correctly. The login provision in this page helps the already registered user to directly access the site and there is a link for registration to a user who is new to this site. Student module is mainly for the students. This helps the students to register for the exam and answer the exam. For registration name, address, phone no, role id, password should be entered. This system will provide result after the exam according to correct and wrong answer. Administrator module is mainly for the administrator. This will contain the creation of question paper, preview of already created question paper, and the report of the administrator. For creating the question paper he/she must enter Exam ID, No: of questions, total time (in min), Marks per Question, Option type. For showing the preview of already created question paper he/she must enter the correct Exam id.

Objective

General objective

General objective of our project is to change the current manual system into computerized one. This project would be very useful for educational institutes where regular evaluation of students' is required.

Specific objective

- Online examination project assesses student by conducting online objective tests.
- Responses by the candidates will be checked automatically.
- It reduces time consumption.
- Being an integrated online examination system reduce paper work.
- Questions can have multiple options, multiple answers or can be text answers.
- To allow department to create tests and answers.
- The result will be shown after some time to the participating students.
- Can generate various report for evaluation purpose when and where required.
- This project will enable educational institutes to conduct test and have automated checking of answers based on the response by the candidates.
- It would enable educational institutes to perform testes quiz and create feedback forms.

System Requirement : Scope of this project is very broad in terms of other

manually taking exams. Few of them are:-

- Can be used anywhere any time as it is a web based application (user location doesn't matter)
- No restriction that examiner has to be present when the candidate takes the test.
- Design to facilitate administrator and user.
- Online examination is designed for educational institutes like schools, colleges and private institutes to conduct logic test for their students or employees on regular basis.

Working Module

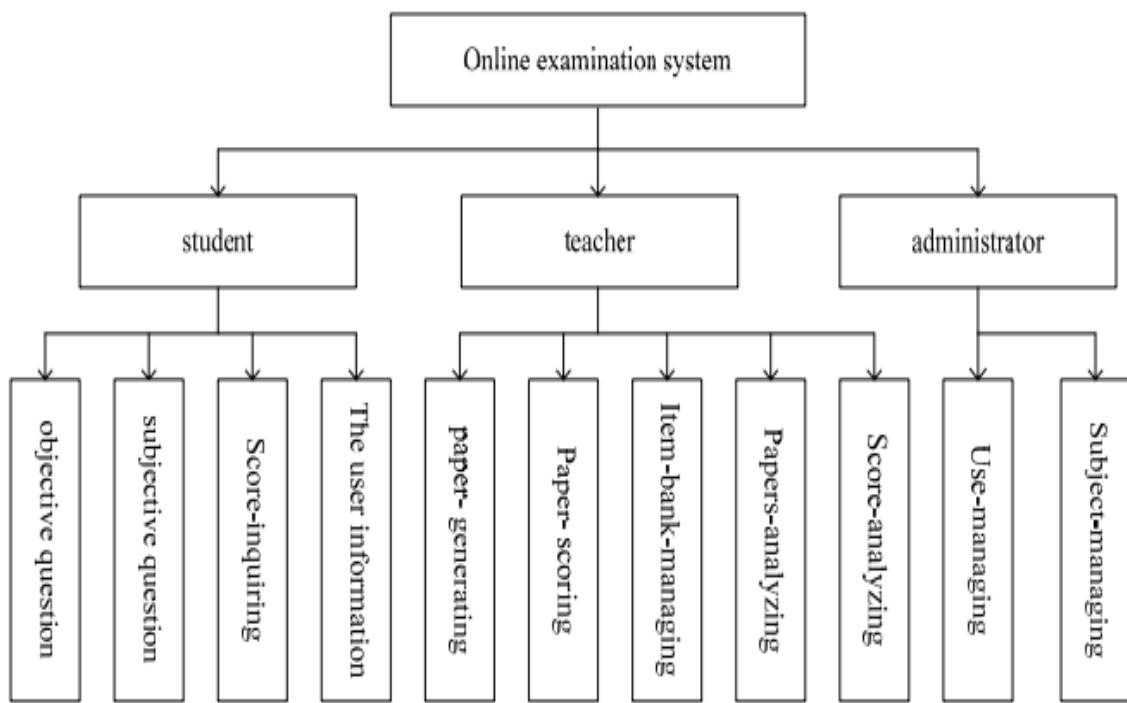
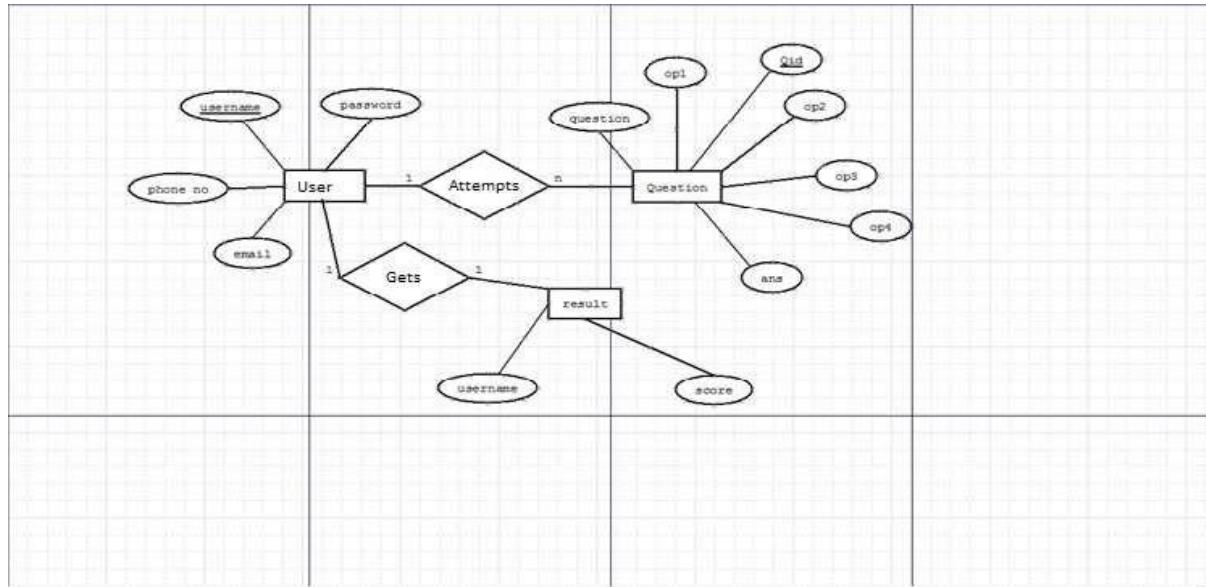
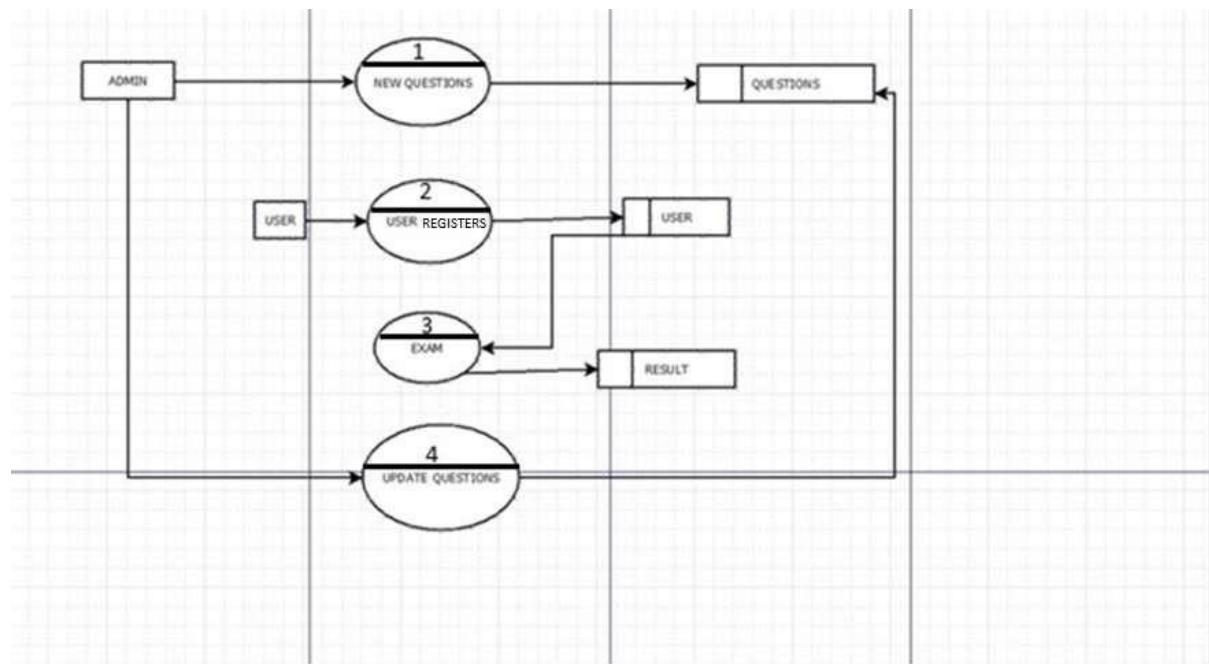


Figure 2. Function module diagram of online examination system

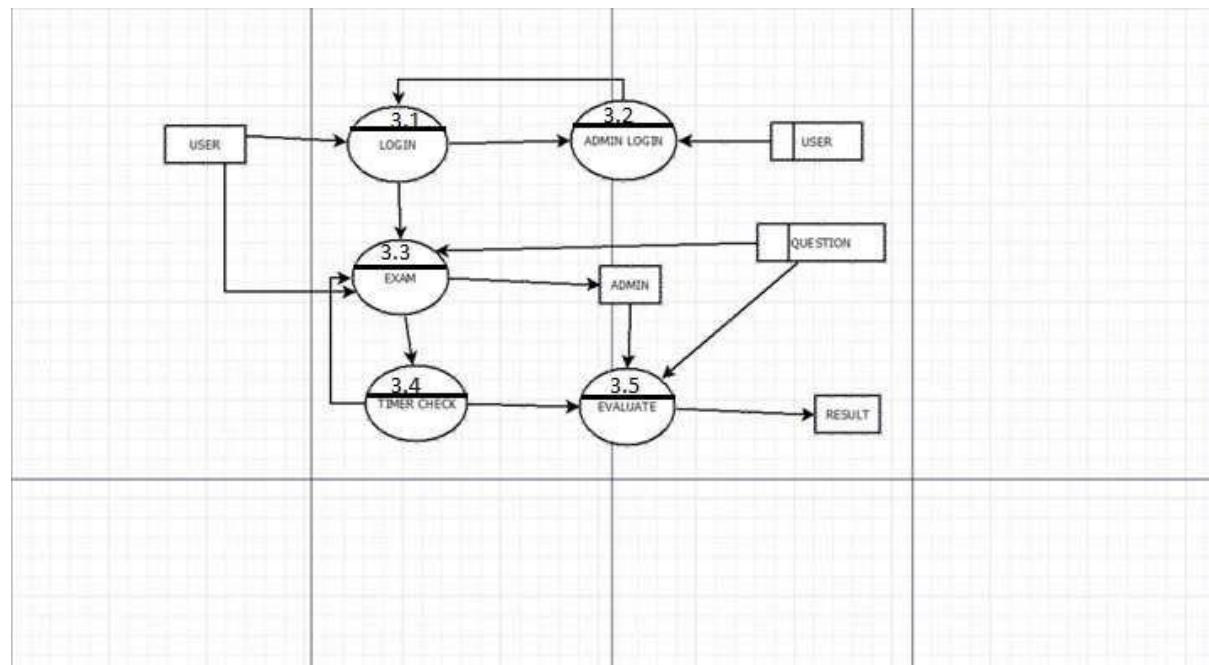
E-R DIAGRAM



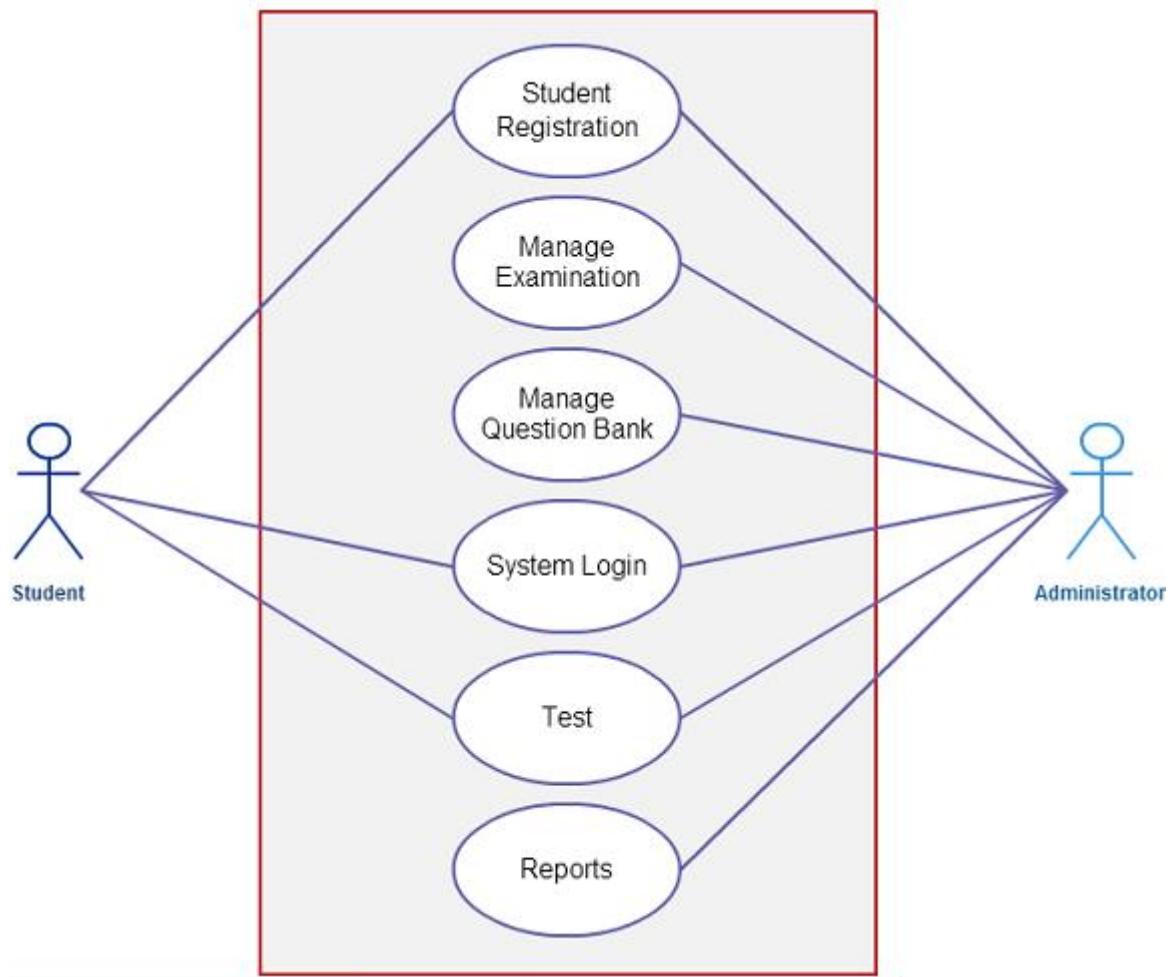
DFD Level 1



DFD Level 2:



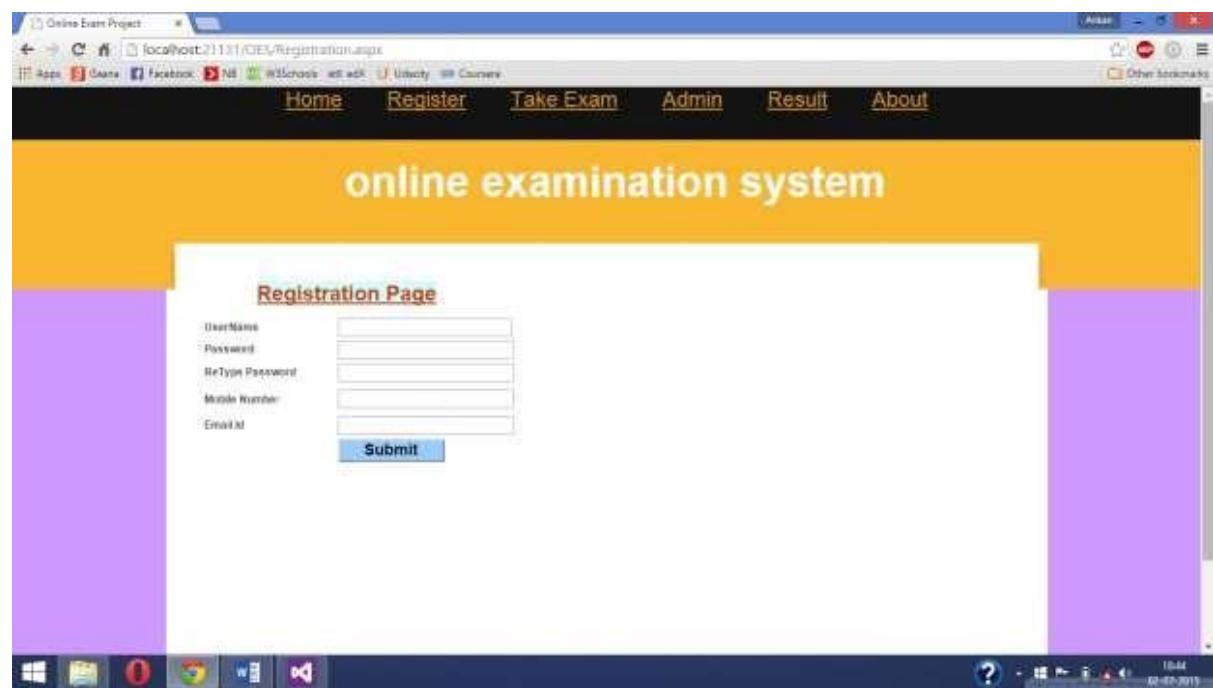
Use case Diagram



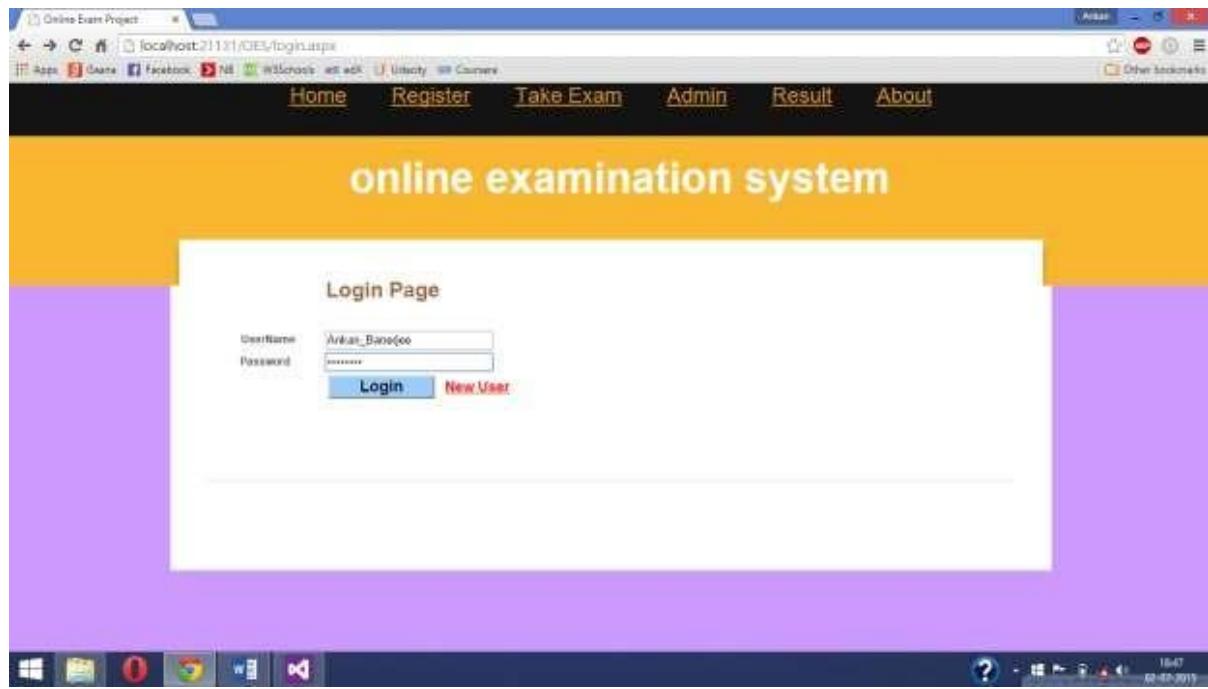
Home Screen :



Registration Page:

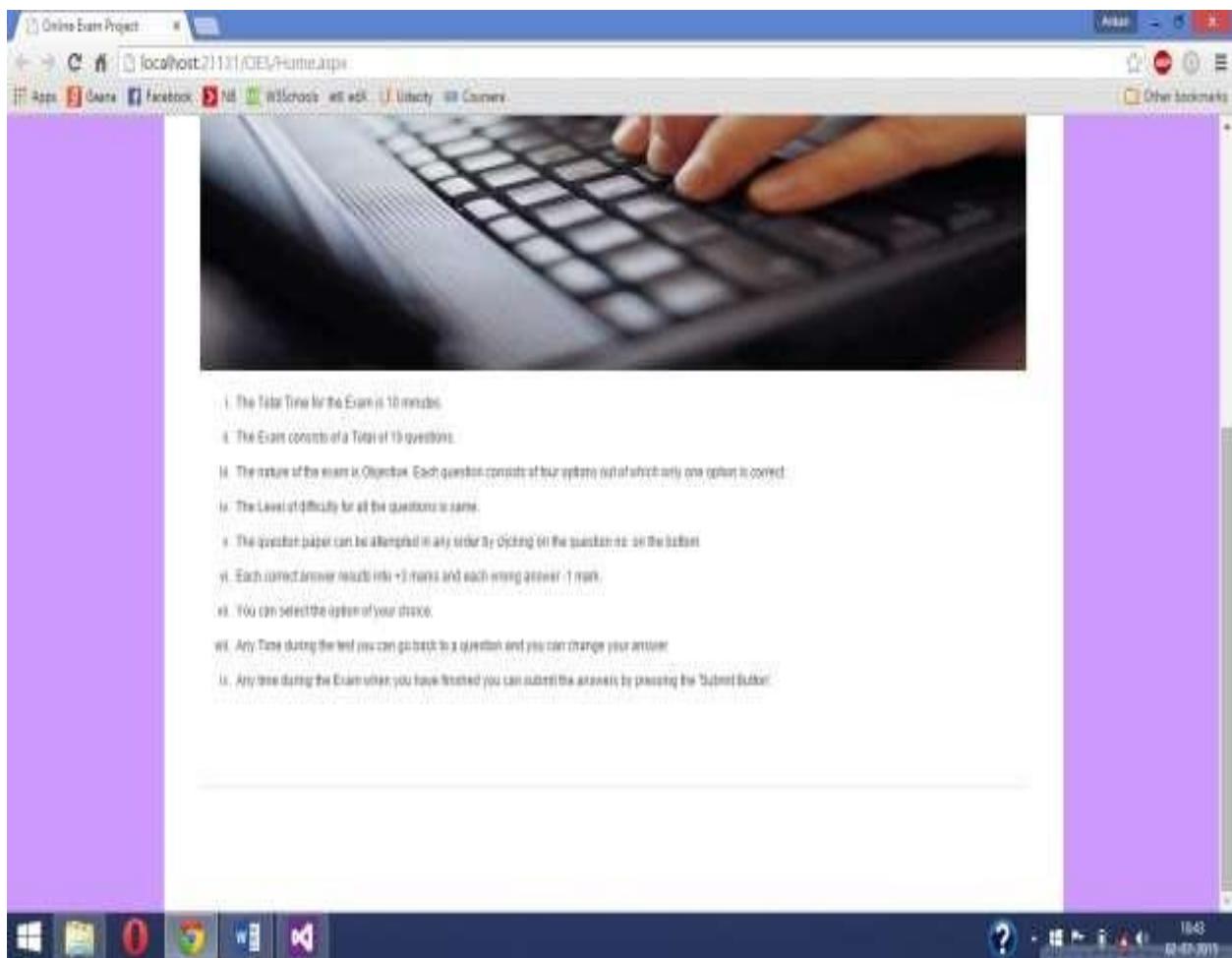


Login Page:



Exam :





- i. The Total Time for the Exam is 10 minutes.
- ii. The Exam consists of a Total of 10 questions.
- iii. The nature of the exam is Objective. Each question consists of four options out of which only one option is correct.
- iv. The Level of difficulty for all the questions is same.
- v. The question paper can be attempted in any order by Clicking on the question no. on the left.
- vi. Each correct answer adds +1 marks and each wrong answer -1 mark.
- vii. You can select the option of your choice.

viii. Any time during the test you can go back to a question and you can change your answer.

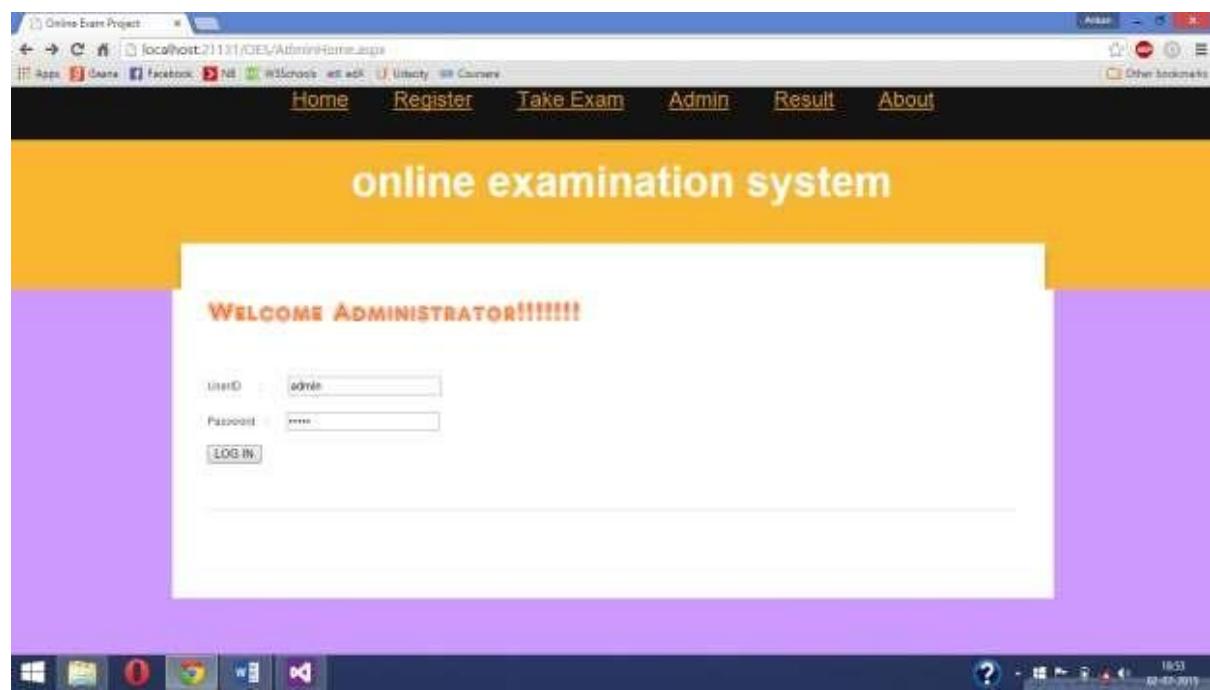
ix. Any time during the Exam after you have finished you can submit the answers by pressing the "Submit" button.

Result :

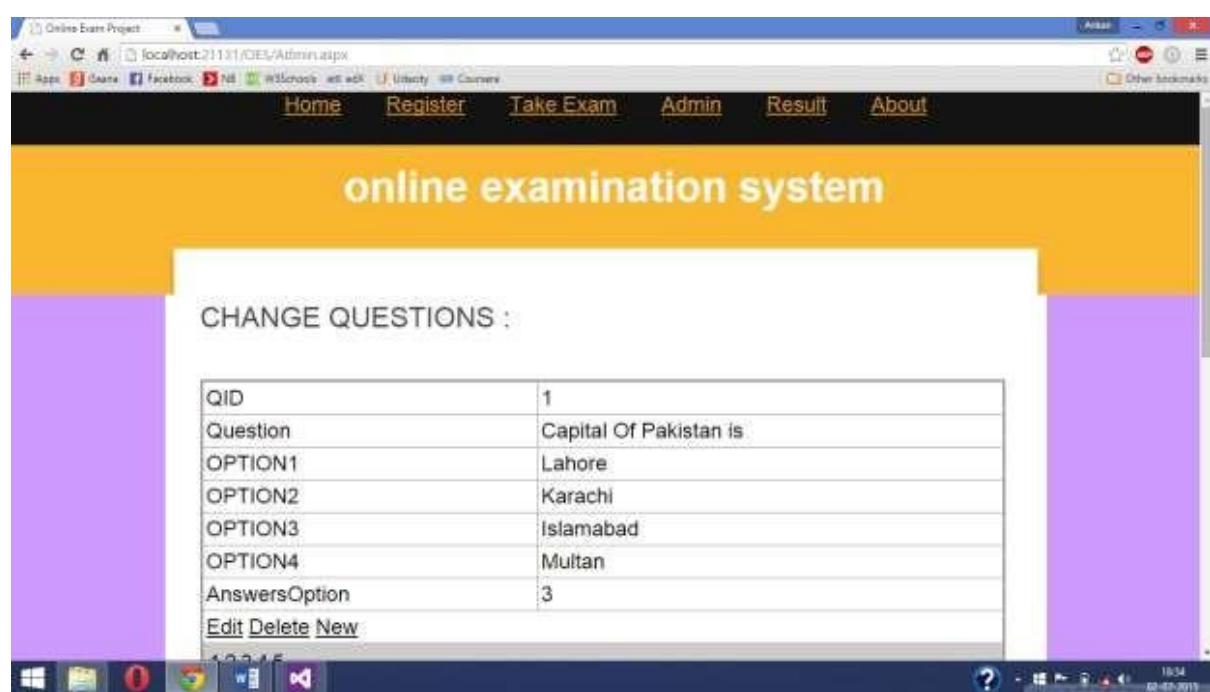
A screenshot of a web browser window titled "Online Exam Project". The address bar shows "localhost:2113/OEP/Result.aspx". The page features a yellow header bar with the text "online examination system". Below the header is a table showing user scores:

| username | scores |
|---------------|--------|
| Aditya | 15 |
| Akash_Sarayee | 15 |
| Ashwani | 8 |
| Kunal | 8 |

Admin Login:



Admin controls:



Change Score Settings:

| | username | score |
|------------------------|----------------|-------|
| Delete | Aditya | 15 |
| Delete | Ankan_Banerjee | 15 |
| Delete | Ashwani | 8 |
| Delete | Kallol | 8 |

Change User Settings:

| | username | password | phoneno | email |
|---|----------------|----------|------------|---------------------------|
| Edit Delete | Aditya | adi | 9955756428 | a@b.com |
| Edit Delete | Ankan_Banerjee | nonsense | 9804686907 | ankanbanerjee02@gmail.com |
| Edit Delete | Ashwani | ash | 9681138135 | a@b.com |
| Edit Delete | Kallol | lol | 9804583972 | a@b.com |

About US :

The Online Management System has been developed by :

Aditya Jayawat
Ankan Banerjee
Ashwani Kumar
Kallol Bhattacharya
Hemant Kumar Joshi

This has been developed as a part of our 4th year Training Program. We feel privileged to bring our work in front of you.

Testing : A test procedure is a formal specification of test cases to be applied to one or more target program modules. Test procedures are executable. A process called the VERIFIER applies a test procedure to its target modules and produces an exception report indicating which test cases, if any, failed. Test procedures facilitate thorough software testing by allowing individual modules or arbitrary groups of modules to be thoroughly tested outside the environment in which they will eventually reside. Test procedures are complete, self-contained, self-validating and execute automatically. Test procedures are a deliverable product of the software development process and are used for both initial checkout and subsequent regression testing of target program modifications. Test procedures are coded in a new language called TPL (Test Procedure Language). The paper analyzes current testing practices, describes the structure and design of test procedures and introduces the Fortran Test Procedure Language.

Testing Technique

- **Unit Testing** - is a level of software testing where individual units/ components of a software are tested. A *unit* is the smallest testable part of any software. It usually has one or a few inputs and usually a single output. In procedural programming, a *unit* may be an individual program, function, procedure, etc.
- **Integration Testing** - is a level of software testing where individual units are combined and tested as a group. The purpose of this level of testing is to expose faults in the interaction between integrated units
- **System Testing** - is a level of software testing where a complete and integrated software is tested. The purpose of this test is to evaluate the system's compliance with the specified requirements. Definition by ISTQB
- **Sanity Testing** – a sanity test is a very brief run-through of the functionality of a computer program, system, calculation, or other analysis, to assure that part of the system or

methodology works roughly as expected. This is often prior to a more exhaustive round of testing

- **Smoke Testing** - Smoke testing is defined as a type of software *testing* that determines whether the deployed build is stable or not. This serves as confirmation whether the QA team can proceed with further testing. Smoke tests are a minimal set of tests run on each build. Here is the cycle where smoke testing is involved.
- **Interface Testing** - Interface Testing is defined as a software testing type which verifies whether the communication between two different software systems is done correctly. A connection that integrates two components is called interface. This interface in a computer world could be anything like API's, web services, etc.
- **Regression Testing** – Regression Testing is defined as a type of software *testing* to confirm that a recent program or code change has not adversely affected existing features. Regression *Testing* is nothing but a full or partial selection of already executed *test cases* which are re-executed to ensure existing functionalities work fine

Beta/Acceptance Testing - Alpha Testing is a type of software testing performed to identify bugs before releasing the product to real users or to the public. Alpha Testing is one of the user acceptance testing. Beta Testing is performed by real users of the software application in a real environment.

CONCLUSION

“ONLINE EXAMINATION SYSTEM” training has made me learnt skills such as complex problem solving and critical thinking.

To conclude one can say “ONLINE EXAMINATION SYSTEM” training was really beneficial for me and making report for such a great training is not being written just for the sake of writing. I am crisply stating the main take away points from my work.

I feel that “ONLINE EXAMINATION SYSTEM” training Course help to meet the growing demand for network security skills. It provides the blended curriculum which provides a hands-on and carrier oriented introduction to come security concepts. The course is highly beneficial, as I feel; it helps students differentiate themselves.