

PROJECT REPORT ON ONLINE EXAMINATION SYSTEM

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Acknowledgement

*I take the opportunity to express my gratitude to Mr Santosh Pattnayak, HOD of ITS and my project guide for allowing me to do my training and the small application project on “**Online Examination System**”. I express my sincere gratitude to his constant support and for providing the adequate facilities, ways and means without which the successful completion of this project would not have been possible.*

I express my heartfelt gratitude to Mr Kalandi Acharya, my project guide without whose help, support and guidance, the completion of my project report would not have been possible.

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INTRODUCTION

Examination is a test not just for the person who gives the exams but also a big test for the management and teacher who arranges the exams. The traditional method of exams involves the paperwork, then checking the papers, arranging the marks and then finally feeding the results in computer for printing the reports. Online Examination System removes most the drawback that was in the traditional method. The exams is online so user can give the exams from anywhere around the world. Also the exams results can be calculated automatically just at the end of exams. It also minimizes the error in calculating results which humans do most of the time. Also the most important benefit of making exams online is the data is saved in a structured format which can be used for detail report to make reports, charts and presentation over a period of time. A person can check question paper that was published 10 years ago in an instant.

OBJECTIVES

- 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. (connection process)
- 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.
- The purpose of the Software Requirements Specification (SRS) is to give a clear and precise description of the functionality of the assessment-support software to be developed .

HARDWARE APPLICATION

PC Name :BT1705424

Processor :Intel®Core(TM)i5-7200 CPU@ 2.50GHz

Installed Memory RAM : 8.00 GB(7.88 GB usable)

System Type :64 bit Operating System, x64 based

Processor

Windows Edition :Windows 10 Home Single Language

2018 edition

SOFTWARE APPLICATION

Operating System: Windows 10

Devlopment Platforms : Visual Studio 2010(Ultimate

Professional)(.Net framework in c#),Graphic User

Interface

Visual Studio .NET IDE (Integrated Development Environment) is the Development Environment for all .NET based applications which comes with rich features. VS .NET IDE provides many options and is packed with many features that simplify application development by handling the complexities. Visual

Studio .NET IDE is an enhancement to all previous IDE's by Microsoft.

● Tools Used

- ❖ System Administrator - The person operating the system(Admin).
- ❖ User - The person gives the examination.
- ❖ System – The application that gives computer instructions that provide the user with tools to accomplish a task.
- ❖ OES – Short form for Online Examination system.
- ❖ Open source - Refers to a computer program in which the source code is available to the general public for use and/or modification from its original design.
- ❖ RDBMS – It is a DBMS that is based on relational model as introduces by E.F. Codd.
- ❖ Query - An enquiry by the application to the database about specific data used in stored procedure.

- ❖ GUI – Acronym for Graphical User Interface, the user will interact with the System using the graphics interface.

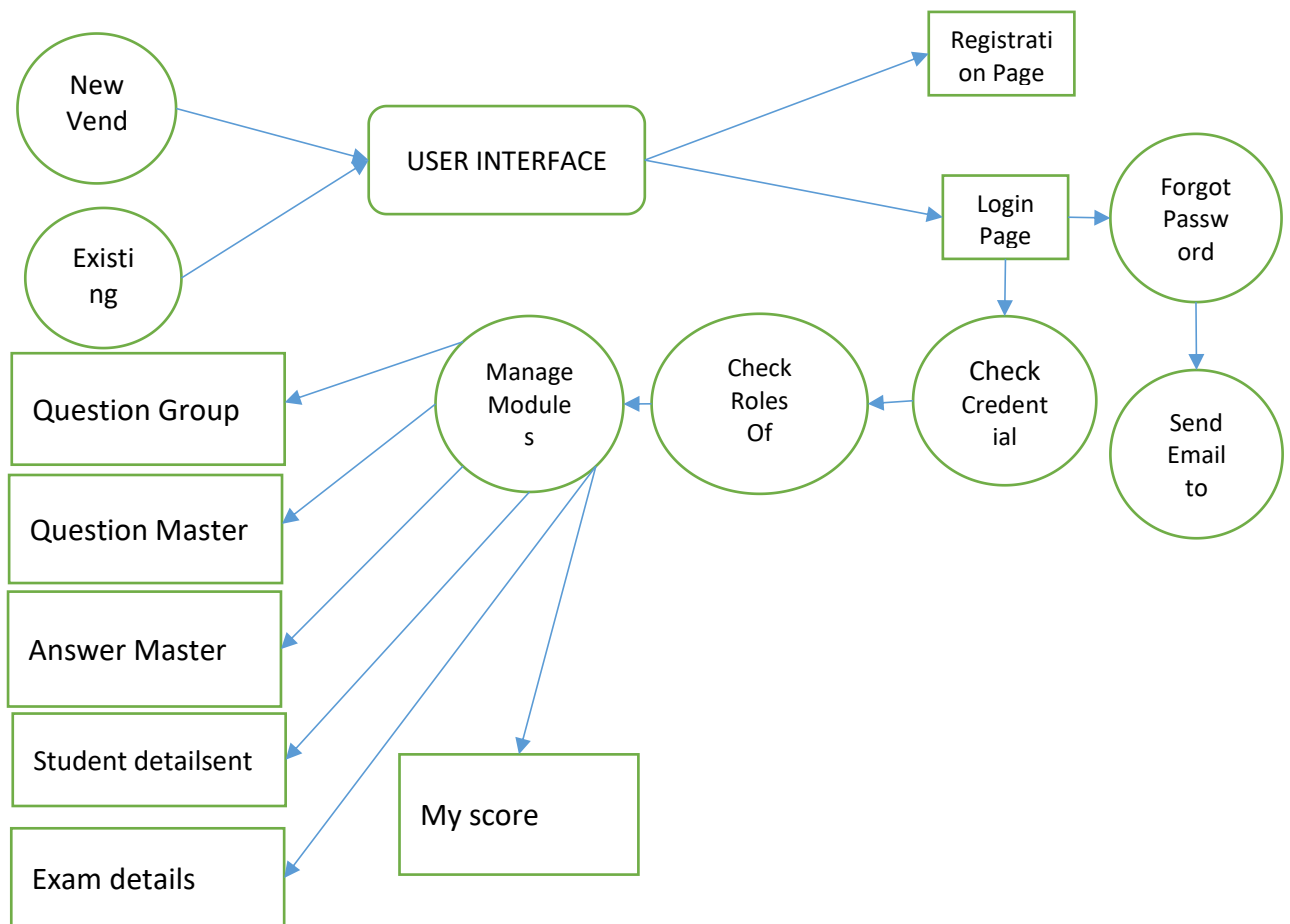
● Database Used

Oracle 11g:Version 11g of the Oracle Database, which included built-in testing for changes, the capability of viewing tables back in time, superior compression of all types of data and enhanced disaster recovery functions. The "g" stood for "grid computing," which supports clusters of servers that are treated as a single unit.

ADO.NET : is an object-oriented set of libraries that allows you to interact with data sources. Commonly, the data source is a database, but it could also be a text file, an Excel spreadsheet, or an XML file. For the purposes of this tutorial, we will look at ADO.NET as a way to interact with a data base.As you are probably aware, there are many different types of databases available. For example, there is Microsoft SQL Server, Microsoft

Access, Oracle, Borland Interbase, and IBM DB2, just to name a few. To further refine the scope of this tutorial, all of the examples will use SQL Server.

Data Flow Diagram



Feasibility Study

What are the user's demonstrable needs?

User needs a web-based system, which will remove all the above-mentioned problems that, the user is facing. The user wants a web-based system, which will reduce the bulk of paperwork, provide ease of work, flexibility, fast record finding, modifying, adding, removing and generating the reports.

How can the problem be redefined?

We proposed our perception of the system, in accordance with the problems of existing system by making a full layout of the system on paper. We tallied the problems and needs by existing system and requirements. We were further updating in the layout in the basis of redefined the problems. In feasibility study Application would be a self-contained system.

Summary Of The Project

The Project name is “Online Exam” which features about the pattern of conducting online examination by sitting at any part of the world. The project describes about how the user is being granted to open the system through his studentID which will be his or her userID and the password is being generated by the Admin .T he project is made in 3 tier architecture so that it can be more user friendly to the client and reusuability can be done again and again.Firstly the database was being designed in the PL/SQL developer where tables like student details, question group,question master,answer master ,student exam details and user login were created to store the data in the database.Then using the 3 tier architecture we defined various folders like buisness acess logic(BAL) where to write all the buisness logic of our project, data acess logic(DAL) where we defined all our data members that are being defined for various regions of our MDI form and UTILS package was

defined for designing our application class and to access the configuration of our database by data source as localhost providing userID and password as key value. The project is designed on tree view style by using various tools and user defined form. After designing each form by various tool then we pass our query (command) from our application folder to the database in the form of stored procedure where we wrote our inserting data in the data database and retrieving the data from the data base and displaying it in the data grid view. Similarly the admin will first go to question group where 5 groups have been already allocated (A,B,C,D,E) where the group name for each question set will be created by the admin like SET-1, SET-2 etc where each group will have different sets of questions. Then the question master page was being designed where by selecting the groupID it will automatically retrieve the group name from the database from the table question group which is already being created where groupID is the primary key. And also the admin has to give his question description in a multiline

textbox and the question marks is 20 which is already set and it is in read only mode& also for each set of question questionID will be automatically generated by the system using serial no. Then we come to Answer Master page where the system will automatically retrieve the groupname and questionID for the selected group where the admin has to give the correct answer for the respected question.And then a student detail page has been created for giving studentID and student name so that thew admin can acess the userID and username from the student details where all his information is being stored in the database.And for all these user defined forms a query has been passed in the BAL folder through the database in the stored Procedure for inserting and retrieving the details in the data grrid view.And finally a exam detail page has been created so the student can appear for the online exam where all his information will be automatically retrieved from the database and a random group and for that particular a random set of questions will be generated by the system

so that he can give all his answers. Then in the user module the student will go to the exam details for appearing the exam by selecting random group with its respective question set so that he can appear for his test and once the test is over then automatically his marks will be generated out of 100. For the above following process we designed two database one for storing the exam answers details of the students and by joining both the tables i.e Answer Master and student exam it will generate the score by checking if the answer key matches with the correct answer stored in the answer master by the admin. Then finally the total score will be generated out of 100 which will appear in my score user defined form in the exam details. After seeing his result he will automatically sign out from the application and he or she can only once appear for the test in a year or else the system won't permit it.

E R Diagram

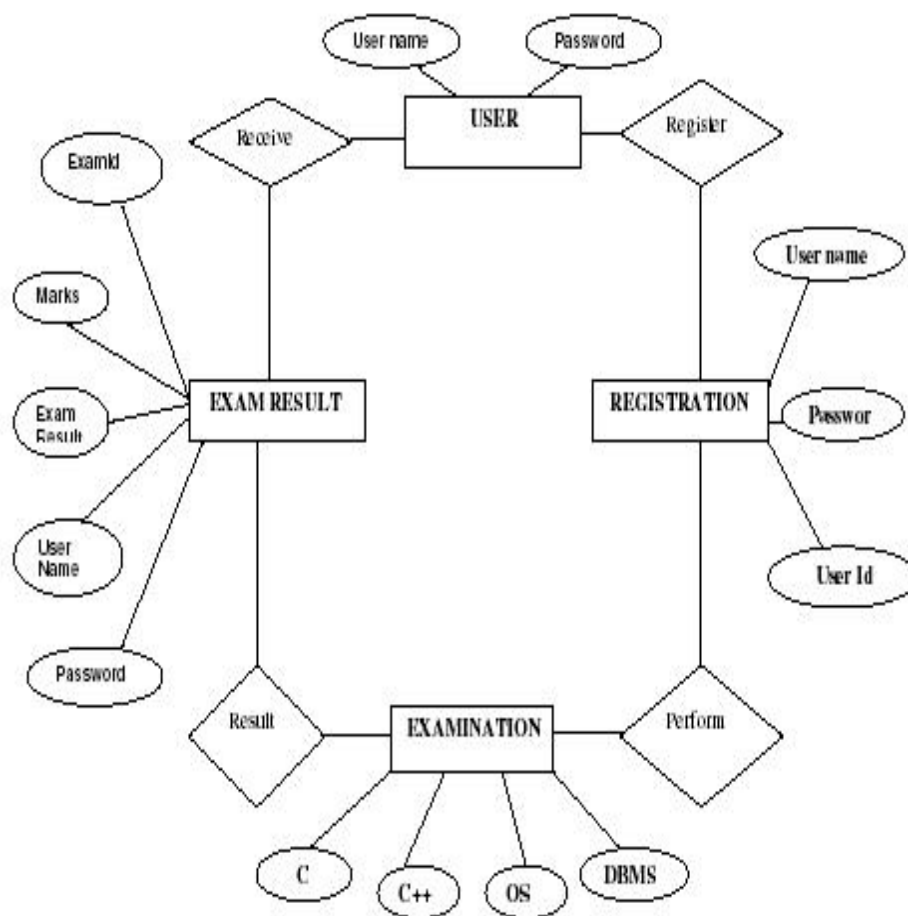


Figure: E-R Diagram

Database Designed

STUDENTDETAIL TABLE

Columns of STUDENTDETAIL

| | Name | Type | Nullable | Default | Comments |
|---|----------|---------------|----------|---------|----------|
| 1 | STUDID | VARCHAR2(70) | | | |
| 2 | STUDNAME | VARCHAR2(100) | Y | | |
| 3 | STUDADD | VARCHAR2(200) | Y | | |

QUESTIONGROUP TABLE

Columns of QUESTIONGRP

| | Name | Type | Nullable | Default | Comments |
|---|-------------|---------------|----------|---------|----------|
| 1 | GROUPID | CHAR(1) | | | |
| 2 | GROUPNAME | VARCHAR2(100) | | | |
| 3 | GROUPSTATUS | CHAR(1) | Y | | |
| 4 | ENTRYID | VARCHAR2(4) | Y | | |
| 5 | ENTRYDATE | DATE | Y | | |

QUESTIONMASTER TABLE

Columns of QUESMASTER

| | Name | Type | Nullable | Default | Comments |
|---|-----------|---------------|----------|---------|----------|
| 1 | GROUPID | CHAR(1) | | | |
| 2 | QUESID | NUMBER(2) | | | |
| 3 | QUESDESC | VARCHAR2(100) | Y | | |
| 4 | QUESMARKS | NUMBER(2) | Y | | |
| 5 | STATUS | CHAR(1) | Y | | |
| 6 | ENTRYID | VARCHAR2(4) | Y | | |
| 7 | ENTRYDATE | DATE | Y | | |
| 8 | GROUPNAME | VARCHAR2(100) | | | |

USERLOGIN TABLE

Columns of USERLOGIN

| | Name | Type | Nullable | Default | Comments |
|---|-----------|---------------|----------|---------|----------|
| 1 | USERID | VARCHAR2(70) | | | |
| 2 | USERNAME | VARCHAR2(100) | Y | | |
| 3 | PASSWORD | VARCHAR2(50) | Y | | |
| 4 | STATUS | CHAR(1) | Y | | |
| 5 | ENTRYID | VARCHAR2(4) | Y | | |
| 6 | ENTRYDATE | DATE | Y | | |

ANSWERMATER TABLE

Columns of ANSMATER

| | Name | Type | Nullable | Default | Comments |
|----|-----------|---------------|----------|---------|----------|
| 1▶ | GROUPID | CHAR(1) | | | |
| 2 | QUESID | NUMBER(2) | | | |
| 3 | ANSWER | VARCHAR2(100) | Y | | |
| 4 | STATUS | CHAR(1) | Y | | |
| 5 | ENTRYID | VARCHAR2(4) | Y | | |
| 6 | ENTRYDATE | DATE | Y | | |
| 7 | GROUPNAME | VARCHAR2(100) | | | |

STUDENTEXAM TABLE

Columns of STUDENTEXAM

| | Name | Type | Nullable | Default | Comments |
|----|-----------|---------------|----------|---------|----------|
| 1▶ | EXAMYEAR | VARCHAR2(7) | | | |
| 2 | EXAMDATE | DATE | Y | | |
| 3 | STUDID | VARCHAR2(70) | | | |
| 4 | GROUPID | CHAR(1) | | | |
| 5 | QUESID | NUMBER(2) | | | |
| 6 | ANSWER | VARCHAR2(50) | Y | | |
| 7 | STATUS | CHAR(1) | Y | | |
| 8 | ENTRYID | VARCHAR2(20) | Y | | |
| 9 | ENTRYDATE | DATE | Y | | |
| 10 | QUESSET | VARCHAR2(100) | Y | | |

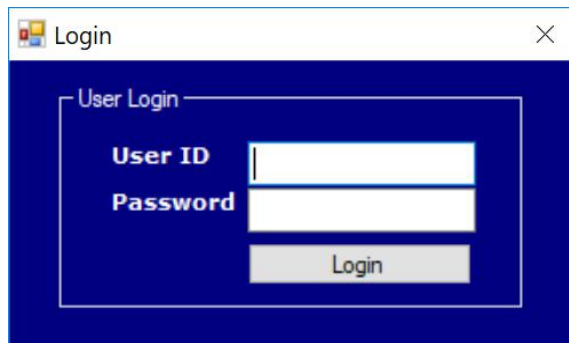
STUDENTSCORE TABLE

Columns of STUDENTSCORE

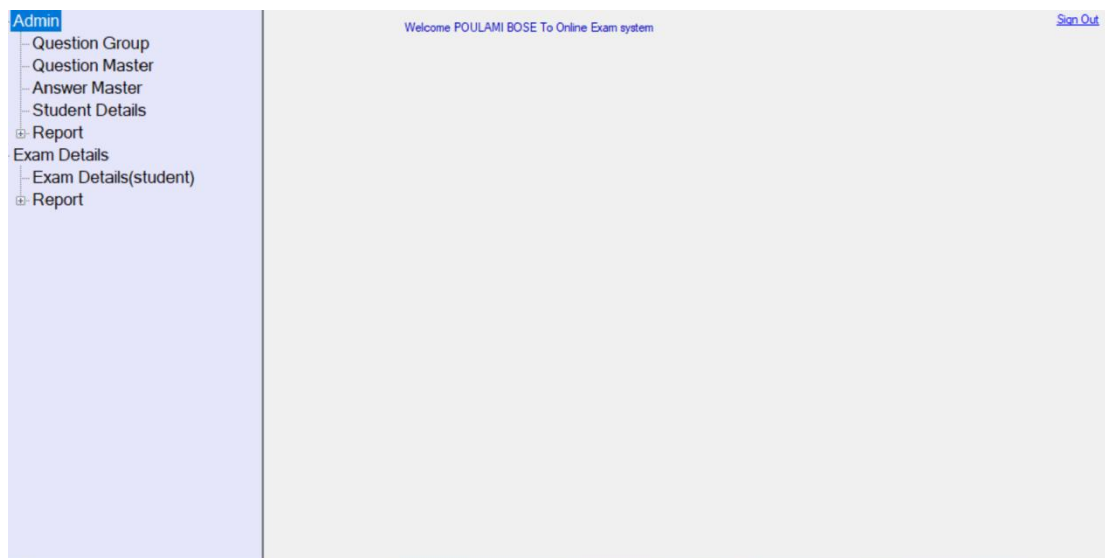
| | Name | Type | Nullable | Default | Comments |
|----|------------|---------------|----------|---------|----------|
| 1▶ | EXAMYEAR | VARCHAR2(7) | | | |
| 2 | EXAMDATE | DATE | Y | | |
| 3 | STUDID | VARCHAR2(70) | Y | | |
| 4 | GROUPID | CHAR(1) | Y | | |
| 5 | QUESSET | VARCHAR2(100) | Y | | |
| 6 | QUESID | NUMBER(2) | Y | | |
| 7 | ANSWER | VARCHAR2(50) | Y | | |
| 8 | CORRECTANS | VARCHAR2(50) | Y | | |
| 9 | SCORE | NUMBER(3) | Y | | |

USER INTERFACE

Various userInterface are involved in the following development of this System



- The Screen is the main screen,which provides the user with different submenus to perform their desired operations.



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Welcome POULAMI BOSE To Online Exam system [Sign Out](#)

Question Group

GroupID:

Group Name:

Status:

| Group ID | Group Name | Status | Entered By | Entered Date |
|----------|------------|--------|------------|------------------|
| A | SET-3 | Active | 1001 | 13-06-2019 12:42 |
| B | SET-1 | Active | 1001 | 13-06-2019 12:42 |
| B | SET-2 | Active | 1001 | 13-06-2019 12:42 |
| B | SET-3 | Active | 1001 | 13-06-2019 12:43 |
| C | SET-1 | Active | 1001 | 13-06-2019 12:43 |
| C | SET-2 | Active | 1001 | 13-06-2019 12:43 |
| C | SET-3 | Active | 1001 | 13-06-2019 12:44 |
| D | SET-1 | Active | 1001 | 13-06-2019 12:44 |

●The above Screen is the Question Group,which provides the Admin to provide different group name or question sets for the students appearing the exam .

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Question Master

GroupID: Ques Marks:

Group Name: Status:

Ques Desc:

| GroupID | Group Name | QuesID | Ques Desc | Ques Marks | Status | Entered By | Entry Date |
|---------|------------|--------|--------------------|------------|--------|------------|------------------|
| A | SET-1 | 3 | IS BERLIN CAPI... | 20 | Active | 1001 | 13-06-2019 12:49 |
| A | SET-1 | 4 | DO SUN RISES ... | 20 | Active | 1001 | 13-06-2019 12:49 |
| A | SET-1 | 5 | DO YOU BELIEV... | 20 | Active | 1001 | 13-06-2019 12:50 |
| A | SET-2 | 1 | IS MAN AN OM... | 20 | Active | 1001 | 13-06-2019 12:50 |
| A | SET-2 | 2 | IS ADAM THE C... | 20 | Active | 1001 | 13-06-2019 12:51 |
| A | SET-2 | 3 | DO HUMANS H... | 20 | Active | 1001 | 13-06-2019 12:51 |
| A | SET-2 | 4 | IS JAVA IS CAS... | 20 | Active | 1001 | 13-06-2019 12:52 |
| A | SET-2 | 5 | IS C++ IS AN OO... | 20 | Active | 1001 | 13-06-2019 12:53 |

●The above screen is the Question Master,where the admin can set different questions for the respective group with it's selected set of questions.

Welcome POULAMI BOSE To Online Exam system [Sign Out](#)

Admin

- Question Group
- Question Master
- Answer Master**
- Student Details
- Report
- Exam Details
 - Exam Details(student)
 - Report

Answer Master

GroupID: Status:

Group Name: Answer:

QuesID:

| GroupID | Group Name | QuesID | Answer | Status | Entered by | Entry date |
|---------|------------|--------|--------|--------|------------|------------------|
| A | SET-1 | 4 | yes | Active | 1001 | 13-06-2019 14:57 |
| A | SET-1 | 5 | no | Active | 1001 | 13-06-2019 14:58 |
| A | SET-1 | 2 | yes | Active | 1001 | 13-06-2019 14:57 |
| A | SET-1 | 1 | yes | Active | 1001 | 13-06-2019 14:24 |
| A | SET-1 | 3 | no | Active | 1001 | 13-06-2019 14:57 |
| A | SET-2 | 1 | no | Active | 1001 | 13-06-2019 14:58 |
| A | SET-2 | 2 | yes | Active | 1001 | 13-06-2019 14:58 |
| A | SET-2 | 3 | yes | Active | 1001 | 13-06-2019 14:59 |
| A | SET-3 | 4 | no | Active | 1001 | 13-06-2019 14:59 |

- The above screen is the Answer Master,where the admin can set different questions for the respective group with it's selected set of questions.

Form1

Welcome POULAMI BOSE To Online Exam system [Sign Out](#)

Admin

- Question Group
- Question Master
- Answer Master
- Student Details**
- Report
- Exam Details
 - Exam Details(student)
 - Report

Student Details

StudentID:

Name:

Address:

| StudentID | Student Name | Student's Address |
|--------------------|------------------|-------------------|
| TSIL/STD/2019-20/1 | POULAMI BOSE | Jamshedpur |
| TSIL/STD/2019-20/4 | SOMRAJ | JSR |
| TSIL/STD/2019-20/2 | DASHARATHA MUNDA | JODA |
| TSIL/STD/2019-20/3 | SUBRATH KARA | CHAMPUA |

- The following screen explains the details of the student for the registration so the adsmin can generation the userid which is the studentID and Password in thge UserLogin table .

Form1

Welcome POULAMI BOSE To Online Exam system [Sign Out](#)

Exam Details

StudentID: TSIL/STD/2019-20/1 [Welcome : POULAMI BOSE](#)

Name: POULAMI BOSE

Group: D

Question Set: SET-3

Question: IS C++ IS AN OOPS PROGRAMMING LANGUAGE?

Answer:

- The above screen leads the student as the user for appearing the exam by selecting the exam details where by the student will get a random group with it's respective question sets which is a random set

Form1

Welcome POULAMI BOSE To Online Exam system [Sign Out](#)

My Score

| YEAR | DATE | STUDENT ID | NAME | Q.NO | DESC | MY ANS | CORR ANS | MY SCORE |
|---------|------------|-----------------|--------------|------|-----------------|--------|----------|----------|
| 2019-20 | 14/06/2019 | TSIL/STD/201... | POULAMI BOSE | 1 | IS BERLIN CA... | yes | no | 0 |
| 2019-20 | 14/06/2019 | TSIL/STD/201... | POULAMI BOSE | 2 | IS ADAM THE ... | no | yes | 0 |
| 2019-20 | 14/06/2019 | TSIL/STD/201... | POULAMI BOSE | 3 | DO SUN RISE... | yes | no | 0 |
| 2019-20 | 14/06/2019 | TSIL/STD/201... | POULAMI BOSE | 4 | IS MAN AN O... | no | yes | 0 |
| 2019-20 | 14/06/2019 | TSIL/STD/201... | POULAMI BOSE | 5 | DO GHOSTS ... | yes | no | 0 |
| 2019-20 | | TSIL/STD/201... | POULAMI BOSE | 6 | Total Score | | | 0 |

- The above screen is for the user as the student can see the correct answers which will check whether it matches with the answer in the answer master and if it matches it will generate the score and at last the overall score will be shown at the end.

Form1

Welcome POULAMI BOSE To Online Exam system [Sign Out](#)

Exam Details

| | | |
|--------------|--------------------------------|------------------------|
| StudentID | TSIL/STD/2019-20/1 | Welcome : POULAMI BOSE |
| Name | POULAMI BOSE | |
| Group | C | |
| Question Set | SET-2 | |
| Question | DO HUMANS HAVE 5 SENSE ORGANS? | |
| Answer | <input type="text"/> | |

Admin

- Question Group
- Question Master
- Answer Master
- Student Details
- Report
- Exam Details
 - Exam Details(student)**
 - Report
 - My Score

- The screen displayed above will be shown if the same student wants to appear for the test then the system will restrict him or her for appearing the exam as he/she can only appear for the exam once in the year.

CONCLUSION

This Web Application 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.

REVIEW OF TRAINING

I would firstly like to thank all the dignitaries and higher authorities of TATA SPONGE IRON LTD. For giving me the privilege for doing one month of training from 13th May 2019 to 12th June 2019 in such a respected & reputed Organization. During this one month course , I was being guided through each and every moment by my respected mentor Mr Kalandi Acharya who made my basics and concepts regarding programming language very clear & simple. I have ever known before about such a versatile technology or tool named visual basic studio 2010 Professional which contains more than 72 different programming languages so that the user can start it's own applictaion by designing it in his/her suitable proگرامing language as well as it will be automatically converted into other languages according to the requirements of the clients. Firstly I learnt about the concepts of oops and then UI/UX designing and

finally about the database. It was a great pleasure for me to learn such an interesting programming language c# which has such a wide use in the corporate world for designing website ,desktop and various mobile applications. Beyond whatever I learnt from my college was something theoretical as it was a teaching and learning process but here in one month I actually learnt the implentation of my theoretical knowledge into the real world field. I learnt how to put my concepts and knowledge in designing a new application by keeping all the compliexities as time-space mangement and saving human resources. I ended up my one month course by concluding a project based on online -Exam for the students .