



Project Report

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|---------------|------------------------------------|---------------------|------------------------------|
| Title: | Online Exam Management System | | |
| Group Name: | Gliders | Date of Submission: | 24 March 2022 |
| Course Title: | Advance Database Management System | | |
| Course Code: | CSC4181 | Section: | C |
| Semester: | Spring | 2022-23 | Course Teacher: Rezwan Ahmed |

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Faculty use only

| | | |
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| FACULTY COMMENTS | Marks Obtained | |
| | | |
| | | |
| | Total Marks | |
| | | |

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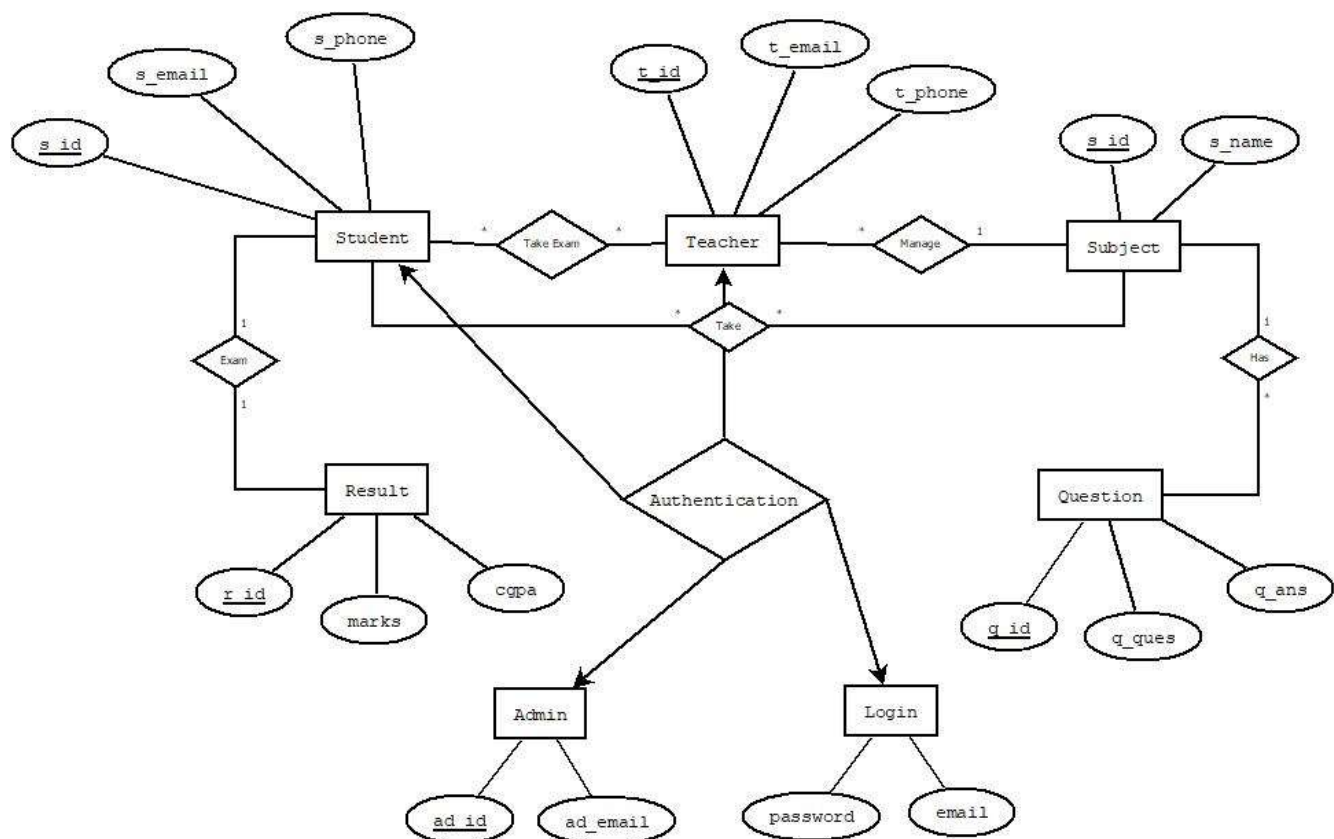
System Summary

This System is about an Online Exam Management System. Where there are mainly three types of users (Admin, Teacher & Student). In this system these users will be able to manage all the events regarding online examinations. The main two users (Teachers and Students) will be able to register to the system using a registration form but they won't be able to login to the system unless an admin approves the regarding user. After getting the approval from an admin the users will be able to login as the user type they were permitted to. After login the teachers will be able to schedule an exam, create/delete/edit questions and answers and also check results. The student users will be able to give the exam and also check their marks after finishing the exam. Admins will have the authority to check marks/ schedules/user information and also approve or delete any user. This whole project is online based.

ERD Diagram

Scenario:

1. Each admin has a unique admin id.
2. Each teacher has a unique teacher id, teacher name, email, and phone number.
3. Each student has a unique student id, student name, email, and phone number.
4. Teacher manages subject & takes exam of students. And student takes subject. Each Subject has a name and unique subject id. A student can take more than one subjects.
5. A question can have many answers. Question is identified by question id & it has question value also.
6. Teacher takes exams & students take part in exam. Different exam happens for different subjects. For each student, exam has different results. Each result has unique string id and value.

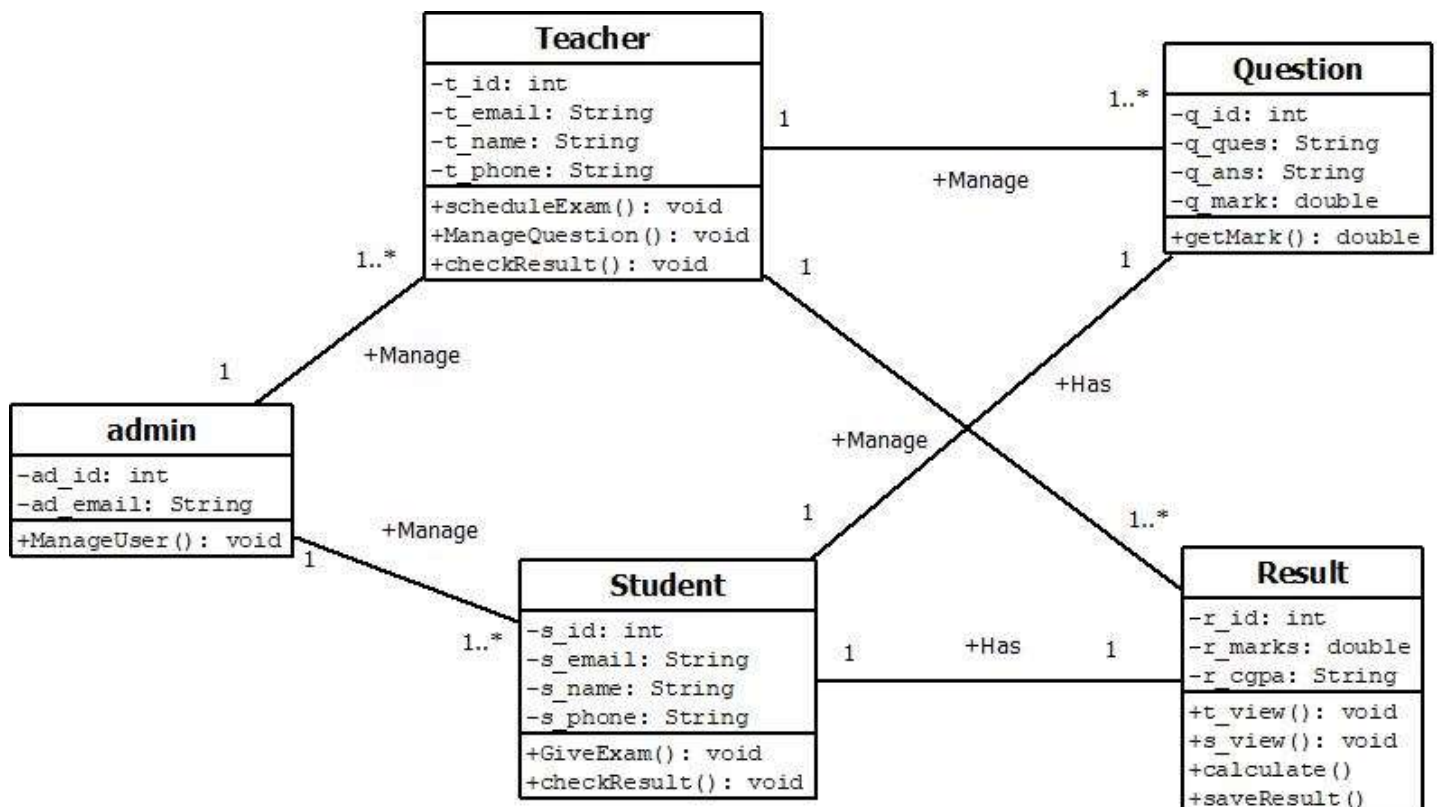


Class Diagram

Scenario:

There are five classes in our system which are Admin, Student, Teacher, Question and Result.

1. Admin has their id which is integer and their name which is string both of them are private. In admin class admin id is the primary key. In the admin class there are only one operation which is manage user which return type is void. Admins can approve and modify users if necessary through this function.
2. Student class has their own student id, email, and name and phone number. A student has two operations which are give exam, and check result.
3. Teacher class has their own teacher id, email, and name and phone number. A teacher has three operations which are schedule exam, manage question and manage result.
4. Question class has its own question id, questions, answers and marks related to the questions. It has only one operation to return marks which return type is double.
5. Result class has result id, marks and cgpa where there are four functions for teacher and student separate result view, calculate result and save result.



Sample Data

Admin Table:

| AD_ID | AD_EMAIL | AD_PASSWORD |
|-------|-----------------|-------------|
| 1000 | admin@system.in | password |

Student Table:

| S_ID | S_NAME | S_EMAIL | S_PHONE | S_PASSWORD |
|------|--------------------------|-------------------|-------------|------------|
| 1000 | Md. Mohibor Rahman Rahat | mohibor@gmail.com | 01760761659 | password |
| 1010 | Khuko Moni | khuko0@gmail.com | 01360761659 | password |
| 1020 | Md. Tanvir Alam Niloy | tniloy0@gmail.com | 01533995600 | password |
| 1030 | Rubayed Noor Shahriar | rubayed@gmail.com | 01999944600 | password |
| 1040 | Munem Al Shahriar | munem26@gmail.com | 01533107746 | password |

Teacher Table:

| T_ID | T_NAME | T_EMAIL | T_PHONE | T_PASSWORD |
|------|----------------------|-----------------------|-------------|------------|
| 1050 | Rezwan Ahmed | a.rezwan@aiub.edu | 01312479154 | password |
| 1060 | Razib Hayat Khan | razib.hayat@aiub.edu | 01845613549 | password |
| 1070 | Rifat Tasnim Anannya | rifat.tasnim@aiub.edu | 01456128795 | password |
| 1080 | Abir Ahmed | abir.ahmed@aiub.edu | 01521432942 | password |
| 1090 | Dr. Md. Mehedi Hasan | mmhasan@aiub.edu | 01933340635 | password |

Result Table:

| R_ID | R_MARKS | R_CGPA |
|------|---------|--------|
| 101 | 90 | 4 |
| 102 | 85 | 3.75 |
| 103 | 80 | 3.5 |
| 104 | 75 | 3.25 |
| 105 | 70 | 3 |
| 106 | 65 | 2.75 |
| 107 | 60 | 2.5 |
| 108 | 50 | 2.25 |
| 109 | 72 | 3 |
| 110 | 77 | 3.25 |

Question Table

| Q_ID | Q_QUES | Q_ANS | Q_MARKS |
|--|--|---------------------------------------|---------|
| 3000 | What's the full form of DBMS? | Database Management System | 10 |
| 3001 | What's the full form of RDBMS? | Relational Database Management System | 10 |
| 3002 | What are the types of normalization in database? | 1NF, 2NF, 3NF | 10 |
| 3003 | What's the full form of DDL? | Data Definition Language | 10 |
| 3004 | What's the full form of DML? | Data Manipulation Language | 10 |
| 3005 | The correct relation between the radius of curvature R and focal length f of a spherical mirror is - ? | $R = 2f$ | 20 |
| 3006 | The instrument used for detecting the presence of electric current in a circuit is - ? | Galvanometer | 20 |
| 3007 | Which one of the following was the first mineral acid discovered? | Sulphuric acid | 20 |
| 3008 | What types of radiations has the smallest wavelength? | X-rays | 20 |
| 3009 | In an incandescent electric bulb, the filament of the bulb is made up of which metal? | Tungsten | 20 |
| More than 10 rows available. Increase rows selector to view more rows. | | | |

Questions for Query and Solve

Questions:

1. Display all the students name and phone number only.
2. Write a query using join to find the teacher's id and the questions they created on it; group by subject.
3. Make teacher id unique.
4. Make student email unique.
5. Show all the results obtained by a student.