ANUDIP FOUNDATION

A Project Report on

"ONLINE EXAMINATION SYSTEM"

By

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ONLINE EXAMINATION SYSTEM

Introducing our Java-based ONLINE EXAMINATION SYSTEM(RMS):

Efficiently manage every aspect of your educational assessments with our intuitive **Online Examination System (OES)**. From creating and scheduling exams to evaluating performance and generating insightful reports, our OES empowers educational institutions to streamline the examination process and deliver a seamless experience to both instructors and students.

Entities:

- ❖ Admin
- ❖ Student
- ❖ Instructor
- ❖ Department
- ❖ Course
- ❖ Topic
- ❖ Exam
- ❖ Question
- ❖ Answer

ATTRIBUTES OF ENTITIES:

1. Admin
- Admin_ID (Primary Key)
- Name
- Email
- Password
- Role

2. Student
- Student_ID (Primary Key)
- Name (First, Last)
- Email
- Address
- Exam_ID (foreign key)
- Course_id (foreign key)

3. Instructor
- Inst_ID (Primary Key)
- Name

- Email
- Course_ID (foreign key)
- Dept_ID (foreign key)

4. Department
- Dept_ID (Primary Key)
- Dept_Name

5. Course
- Course_ID (Primary Key)
- Course Name
- Description
- Inst_ID (Foreign key)
- Topic_ID (Foreign key)
- Student_ID (Foreign key)
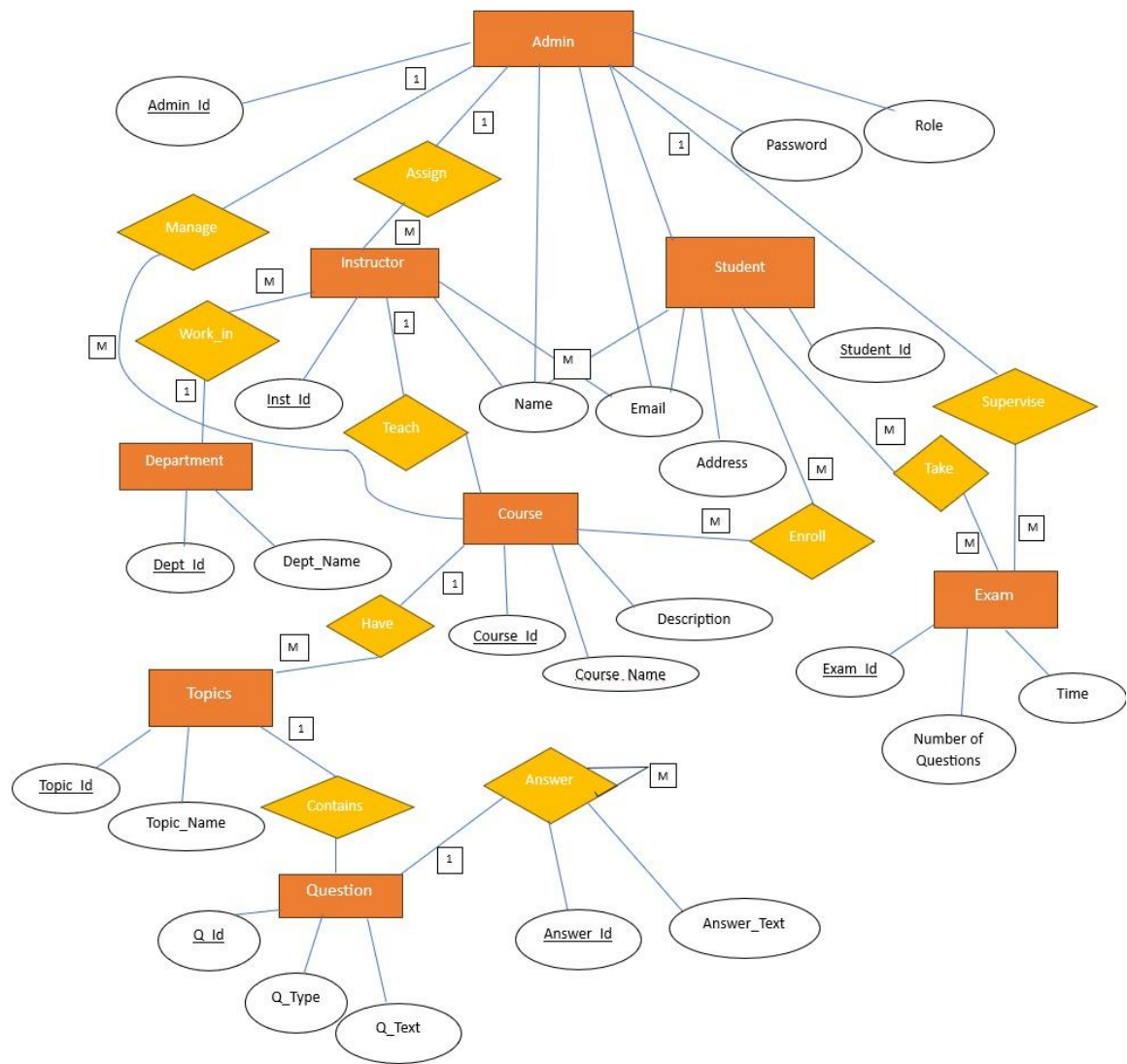
6. Topics
- Topic_ID (Primary Key)
- Topic Name

7. Exam
- Exam_ID (Primary Key)
- Time
- Number of Questions
- Admin_ID (foreign key)
- Student_ID (foreign key)

8. Question
- Q_ID (Primary Key)
- Question Text
- Question Type (MCQ, True/False)
- Associated with a Topic

9. Answer
- Answer_ID (Primary Key)
- Answer Text

CONCLUSION:

       In summary, our Java-based Online Examination System (OES) is a comprehensive solution designed to simplify and enhance the entire examination lifecycle. By integrating advanced features with a user-friendly interface, it not only improves efficiency for administrators and instructors but also ensures a smooth and accessible experience for students. With OES, institutions can confidently transition to a smarter, more organized, and reliable way of conducting assessments.

DATABASE CREATION QUERY:

mysql> use online_examination_system;

Database changed

mysql> show tables;

```
+------------------------------------+
| Tables_in_online_examination_system |
+------------------------------------+
| admins                             |
```

```
| answers              |
| courses              |
| departments          |
| exams                |
| instructors          |
| questions            |
| student_courses      |
| student_exams        |
| students             |
| topics               |
+----------------------------------+
11 rows in set (0.00 sec)


mysql> create table admins;
ERROR 4028 (HY000): A table must have at least one visible column.
mysql> desc admins;
+----------+--------------+------+-----+---------+----------------+
| Field    | Type         | Null | Key | Default | Extra          |
+----------+--------------+------+-----+---------+----------------+
| adminId  | int          | NO   | PRI | NULL    | auto_increment |
| email    | varchar (255)| NO   | UNI | NULL    |                |
| name     | varchar (255)| NO   |     | NULL    |                |
| password | varchar (255)| NO   |     | NULL    |                |
| role     | varchar (255)| NO   |     | NULL    |                |
+----------+--------------+------+-----+---------+----------------+
5 rows in set (0.00 sec)
mysql> desc answers;
+-------------+--------------+------+-----+---------+----------------+
| Field       | Type         | Null | Key | Default | Extra          |
```

```
+-------------+--------------+------+-----+---------+----------------+
| answerId    | int          | NO   | PRI | NULL    | auto_increment |
| answerText  | varchar (255)| NO   |     | NULL    |                |
| question_id | int          | YES  | MUL | NULL    |                |
| student_id  | int          | YES  | MUL | NULL    |                |
+-------------+--------------+------+-----+---------+----------------+
4 rows in set (0.00 sec)
```

mysql> desc courses;

```
+---------------+--------------+------+-----+---------+----------------+
| Field         | Type         | Null | Key | Default | Extra          |
+---------------+--------------+------+-----+---------+----------------+
| courseId      | int          | NO   | PRI | NULL    | auto_increment |
| courseName    | varchar(255) | NO   | UNI | NULL    |                |
| description   | varchar(255) | NO   |     | NULL    |                |
| instructor_id | int          | YES  | MUL | NULL    |                |
+---------------+--------------+------+-----+---------+----------------+
4 rows in set (0.00 sec)
```

mysql> desc departments;

```
+----------+--------------+------+-----+---------+----------------+
| Field    | Type         | Null | Key | Default | Extra          |
+----------+--------------+------+-----+---------+----------------+
| deptId   | int          | NO   | PRI | NULL    | auto_increment |
| deptName | varchar(255) | NO   | UNI | NULL    |                |
+----------+--------------+------+-----+---------+----------------+
2 rows in set (0.00 sec)
```

```
mysql> desc exams;

+--------------+--------------+------+-----+---------+----------------+
| Field        | Type         | Null | Key | Default | Extra          |
+--------------+--------------+------+-----+---------+----------------+
| examId       | int          | NO   | PRI | NULL    | auto_increment |
| duration     | int          | NO   |     | NULL    |                |
| numQuestions | int          | NO   |     | NULL    |                |
| title        | varchar(255) | NO   |     | NULL    |                |
| admin_id     | int          | YES  | MUL | NULL    |                |
+--------------+--------------+------+-----+---------+----------------+
5 rows in set (0.00 sec)


mysql> desc instructors;

+--------------+--------------+------+-----+---------+----------------+
| Field        | Type         | Null | Key | Default | Extra          |
+--------------+--------------+------+-----+---------+----------------+
| instructorId | int          | NO   | PRI | NULL    | auto_increment |
| email        | varchar(255) | NO   | UNI | NULL    |                |
| name         | varchar(255) | NO   |     | NULL    |                |
| dept_id      | int          | YES  | MUL | NULL    |                |
+--------------+--------------+------+-----+---------+----------------+
4 rows in set (0.00 sec)


mysql> desc questions;

+--------------+--------------+------+-----+---------+----------------+
| Field        | Type         | Null | Key | Default | Extra          |
+--------------+--------------+------+-----+---------+----------------+
| questionId   | int          | NO   | PRI | NULL    | auto_increment |
```

| questionText | varchar(255) | NO | | NULL | |

| questionType | varchar(255) | NO | | NULL | |

| exam_id | int | NO | MUL | NULL | |

| topic_id | int | YES | MUL | NULL | |

+--------------+--------------+------+-----+---------+----------------+

5 rows in set (0.00 sec)

mysql> desc student_courses;

+------------+------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+------+------+-----+---------+-------+

| student_id | int | NO | MUL | NULL | |

| course_id | int | NO | MUL | NULL | |

+------------+------+------+-----+---------+-------+

2 rows in set (0.00 sec)

mysql> desc student_exams;

+------------+------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+------+------+-----+---------+-------+

| exam_id | int | NO | MUL | NULL | |

| student_id | int | NO | MUL | NULL | |

+------------+------+------+-----+---------+-------+

2 rows in set (0.00 sec)

mysql> desc students;

+-----------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

```
+-----------+--------------+------+-----+---------+----------------+
| studentId | int          | NO   | PRI | NULL    | auto_increment |
| address   | varchar(255) | NO   |     | NULL    |                |
| email     | varchar(255) | NO   | UNI | NULL    |                |
| firstName | varchar(255) | NO   |     | NULL    |                |
| lastName  | varchar(255) | NO   |     | NULL    |                |
+-----------+--------------+------+-----+---------+----------------+
5 rows in set (0.00 sec)
```

mysql> desc topics;

```
+-----------+--------------+------+-----+---------+----------------+
| Field     | Type         | Null | Key | Default | Extra          |
+-----------+--------------+------+-----+---------+----------------+
| topicId   | int          | NO   | PRI | NULL    | auto_increment |
| topicName | varchar(255) | NO   |     | NULL    |                |
| course_id | int          | YES  | MUL | NULL    |                |
+-----------+--------------+------+-----+---------+----------------+
3 rows in set (0.00 sec)
```

mysql>