

DBMS Lab Assignment

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Topic: Online tutorial site

Important functions of Online Tutorial Site:

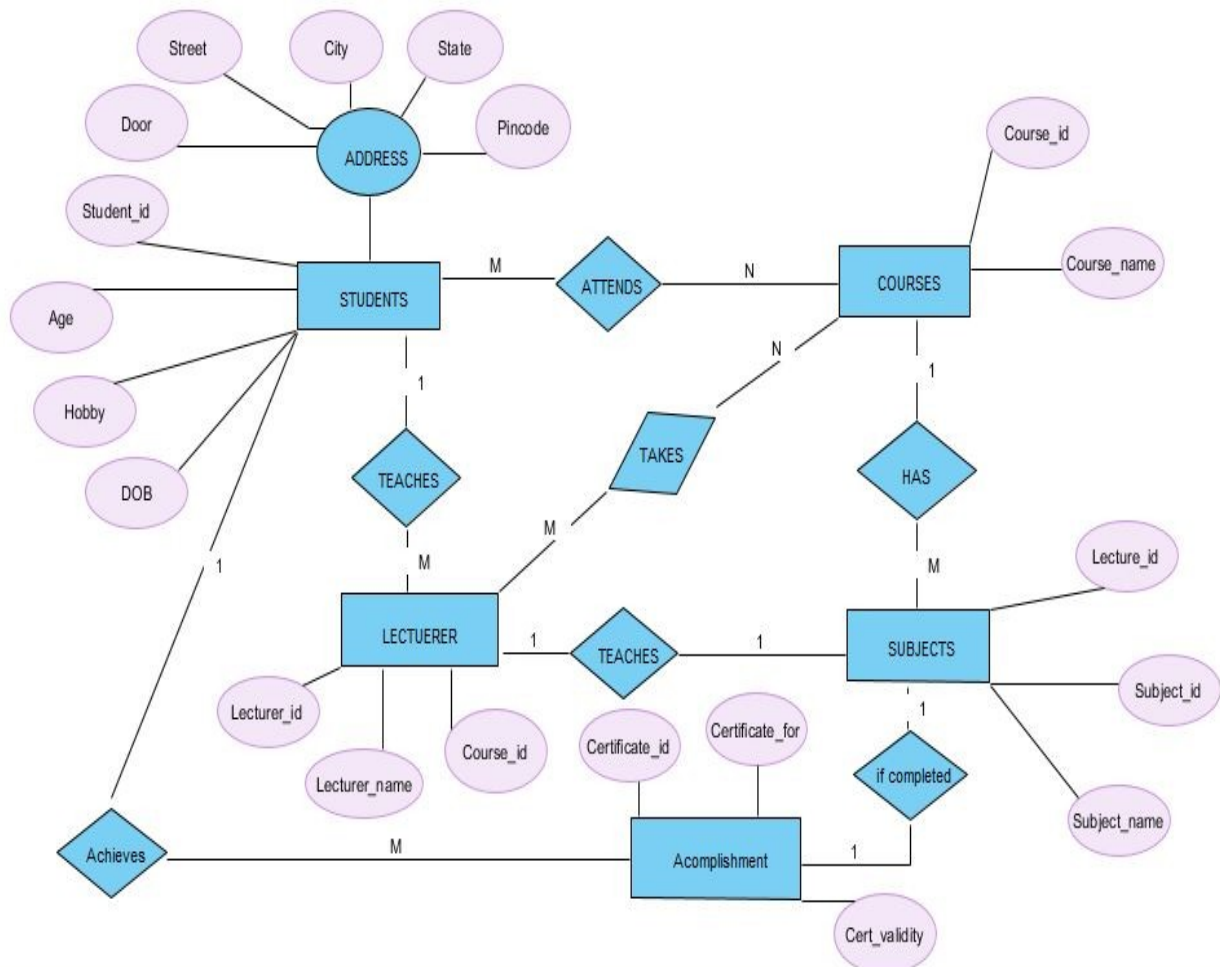
1. An online tutorial website requires user *registration* to access the website content.
2. User has to *login* every time to get into website portal and avail its facilities.
3. User, as a student has to provide all his/her *personal information* along with his *permanent address*.
4. Student (M) can *attend* many courses (N).
5. A course (1) can *have* several subjects (M).
6. Lecturer (M) *teaches* students (1).
7. Lecturers (M) can *take* multiple courses (N)
8. Lecturer (1) *teaches* specific subject (1).
9. On completing a subject (1) student gets *Accomplishment* (1).
10. Students (1) accomplishment (M) gets reflected in his/her profile as *achieves*.

Relational Database Schema:

- ➔ **STUDENTS:** (Student_id: INTEGER, NOT NULL, PRIMARY KEY, AUTO INCREMENT; Student_name: CHAR(150), NOT NULL; Age: INTEGER, NOT NULL; Hobby: STRING; DOB: DATE, NOT NULL)
- ➔ **LECTURERS:** (Lecture_id: INTEGER, NOT NULL; Lecturer_name: STRING, NOT NULL; Course_id: INTEGER, NOT NULL, FOREIGN KEY)
- ➔ **COURSES:** (Course_id: INTEGER, NOT NULL, PRIMARY KEY, AUTO INCREMENT; Course_name: STRING, NOT NULL)

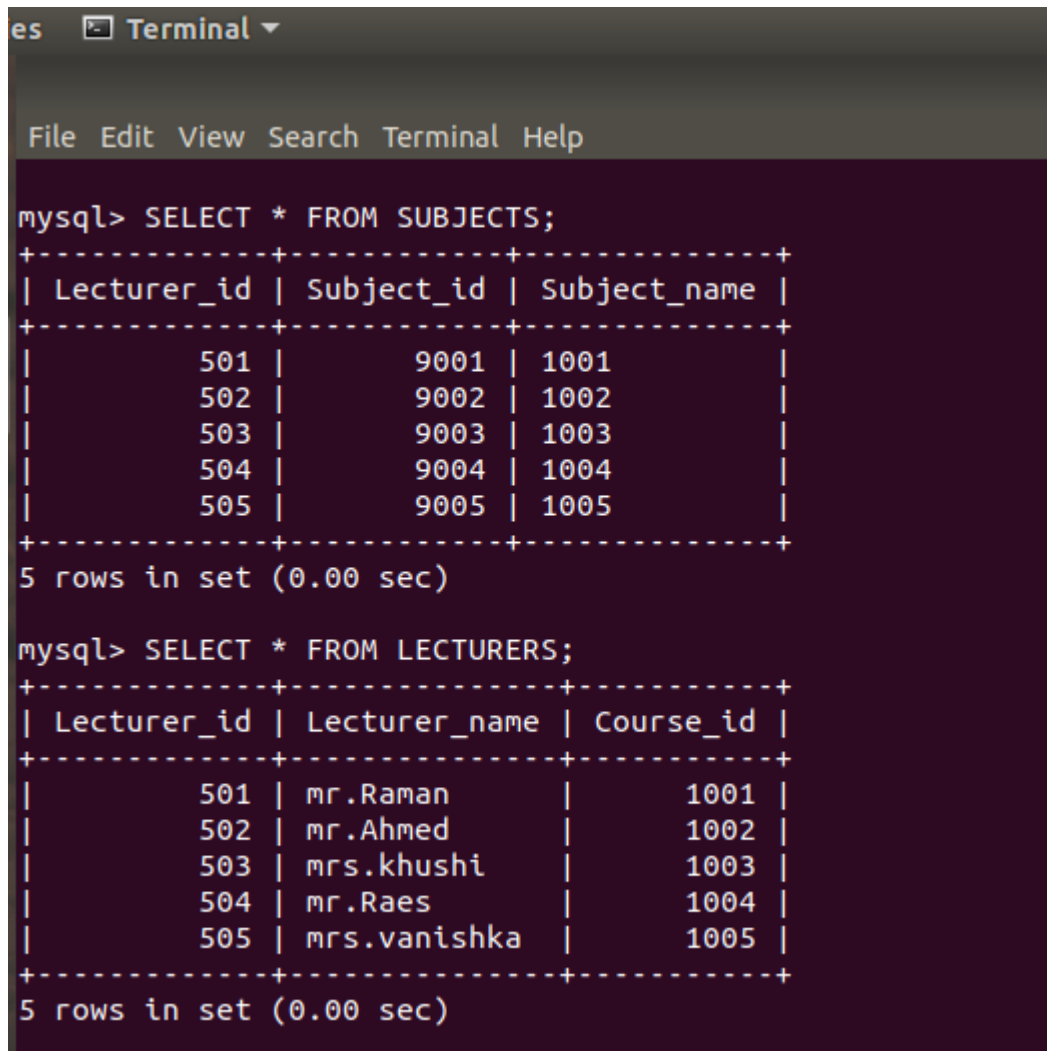
- **SUBJECTS:**(Lecture_id:INTEGER,FOREIGN KEY,NOT NULL; Subject_id:INTEGER,PRIMARY KEY,NOT NULL; Subject_name:STRING,NOT NULL)
- **ACCOMPLISHMENTS:**(Certificate_id:INTEGER,PRIMARY KEY,AUTO INCREMENT; Certificate_for:STRING,NOT NULL; Cert_validity:DATE,NOT NULL)

→ Entity-Relation Diagram(For online tutorial site):



→ Screenshots for Different databases of the system:

- ◆ Databases for tables 'SUBJECTS' and 'LECTURERS'



```
es Terminal
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mysql> SELECT * FROM SUBJECTS;
+-----+-----+-----+
| Lecturer_id | Subject_id | Subject_name |
+-----+-----+-----+
|          501 |         9001 | 1001         |
|          502 |         9002 | 1002         |
|          503 |         9003 | 1003         |
|          504 |         9004 | 1004         |
|          505 |         9005 | 1005         |
+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> SELECT * FROM LECTURERS;
+-----+-----+-----+
| Lecturer_id | Lecturer_name | Course_id |
+-----+-----+-----+
|          501 | mr.Raman      | 1001      |
|          502 | mr.Ahmed      | 1002      |
|          503 | mrs.khushi    | 1003      |
|          504 | mr.Raes       | 1004      |
|          505 | mrs.vanishka  | 1005      |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

◆ Databases for Tables 'STUDENTS', 'COURSES', and 'ACCOMPLISHMENTS'

```
ies  Terminal  Wed 13:06 ●
kapil@Kapil: ~
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mysql> SELECT * FROM STUDENTS;
+-----+-----+-----+-----+-----+
| Student_id | Student_name | Age | Hobby      | DOB      |
+-----+-----+-----+-----+-----+
| 101 | kapil      | 21 | sql_coding | 1998-08-18 |
| 102 | akshay    | 21 | play      | 1998-04-22 |
| 103 | dhiru     | 20 | dance     | 1998-01-05 |
| 104 | tarun     | 20 | singing   | 1998-09-13 |
| 105 | derik     | 20 | timepass  | 1998-09-15 |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> SELECT * FROM COURSES;
+-----+-----+
| Course_id | Course_name |
+-----+-----+
| 1001 | English literature |
| 1002 | Science |
| 1003 | History |
| 1004 | GK |
| 1005 | Hindi literature |
+-----+-----+
5 rows in set (0.00 sec)

mysql> SELECT * FROM ACCOMPLISHMENT;
+-----+-----+-----+
| Certificate_id | certificate_for | Cert_validity |
+-----+-----+-----+
| 51 | English_literature | 2020-06-20 |
| 52 | Hindi__literature | 2022-06-26 |
| 53 | Science | 2025-09-05 |
| 54 | History | 2021-01-31 |
| 55 | GK | 2024-10-19 |
+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> mysql> 
```