

**Delhi Technological University**  
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**Department Of Applied Mathematics**



**MC-302: DATABASE MANAGEMENT SYSTEMS**  
**Lab File**

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## PRACTICAL 2

**AIM:**

1. In the database created in Assignment 1, modify the tables.
2. Alter the schema of tables using ALTER TABLE statement
  - a) drop an existing column from the table.
  - b) modify the datatype of an existing column.
  - c) add the foreign key constraint.
  - d) add two more columns to the table.
  - e) remove the NOT NULL constraint of a column
  - f) Add a UNIQUE constraint to a column
3. Modify the data of tables using the UPDATE TABLE. Try to make any incompatible changes and note the error.
4. Insert at least 15 rows in altered tables.
5. View the data using the SELECT statement.

**CODE:**

```
CREATE TABLE movies
```

```
(  
    IDm          int NOT NULL UNIQUE,  
    movie_name    VARCHAR(200),  
    movie_year    INTEGER,  
    country       VARCHAR(100) default 'India',  
    genre         TEXT NOT NULL,  
    language      TEXT,  
    PRIMARY KEY (IDm, movie_year)  
);
```

```
ALTER TABLE movies  
ADD CONSTRAINT chk  
CHECK (movie_year>2000);
```

```
CREATE TABLE actors
```

```
(  
    IDa          INTEGER NOT NULL,  
    actor_name    VARCHAR(50) UNIQUE,  
    actor_age     INTEGER,  
    born         VARCHAR(50),  
    country       TEXT NOT NULL,  
    height        float,  
    PRIMARY KEY (IDa)  
);
```

```
ALTER TABLE movies
DROP COLUMN language;
```

```
ALTER TABLE movies
MODIFY COLUMN genre VARCHAR(100);
```

```
ALTER TABLE actors
ADD IDm INTEGER;
```

```
ALTER TABLE actors
ADD FOREIGN KEY (IDm) REFERENCES movies(IDm);
```

```
ALTER TABLE movies
ADD imdb_rating float;
```

```
ALTER TABLE movies
ADD language VARCHAR(50);
```

```
ALTER TABLE movies
MODIFY genre TEXT;
```

```
ALTER TABLE actors
ADD CONSTRAINT chk UNIQUE(IDa);
```

```
INSERT INTO movies VALUES (1,'ROCKY 4', 2012, 'USA', 'Mystic, Crime', 8.9, 'English');
INSERT INTO movies VALUES (2,'INTERSTELLAR', 2014, 'USA', 'Science Fiction', 9.2, 'English');
INSERT INTO movies VALUES (3, 'CONNECT', 2001, 'USA', 'Drama', 7.2, 'English');
INSERT INTO movies VALUES (4, 'INCEPTION', 2010, 'USA', 'Science Fiction', 8.7, 'English');
INSERT INTO movies VALUES (5, 'WHIPLASH', 2014, 'USA', 'Drama', 7.9, 'English');
INSERT INTO movies VALUES (6, 'PARASITE', 2019, 'Korea', 'Drama, Thriller', 9.3, 'Korean');
INSERT INTO movies VALUES (7, 'THE PIANIST', 2002, 'USA', 'Biography', 8.8, 'English');
INSERT INTO movies VALUES (8, 'FOCUS', 2019, 'USA', 'Drama', 5.4, 'English');
INSERT INTO movies VALUES (9, 'RANG DE BASANTI', 2006, 'India', 'Drama', 7.6, 'Hindi');
INSERT INTO movies VALUES (10, 'LAGAAN', 2001, 'India', 'Drama, Sport', 8.8, 'Hindi');
INSERT INTO movies VALUES (11, 'SWADES', 2004, 'India', 'Drama', 8.8, 'Hindi');
INSERT INTO movies VALUES (12, 'BARFI!', 2012, 'India', 'Comedy', 6.8, 'Hindi');
INSERT INTO movies VALUES (13, 'DRISHYAM', 2015, 'India', 'Crime, Drama', 9.1, 'Hindi');
INSERT INTO movies VALUES (14, 'ROCK ON!!!', 2008, 'India', 'Music, Drama', 7.5, 'Hindi');
INSERT INTO movies VALUES (15, 'MASAAN', 2015, 'India', 'Drama', 7.7, 'Hindi');
```

```

INSERT INTO actors VALUES (1,'Shah Rukh Khan',50,'20 Jan 1973','India',1.74, 1);
INSERT INTO actors VALUES (2, 'Aamir Khan', 50, '31 May 1972', 'India', 1.55, 2);
INSERT INTO actors VALUES (3, 'Saif Ali Khan', 52, '4 Aug 1979', 'India', 1.77, 3);
INSERT INTO actors VALUES (4, 'John Abraham', 49, '5 May 1973', 'India', 1.82, 4);
INSERT INTO actors VALUES (5, 'Abhishek Bacchan', 49, '6 June 1974', 'India', 1.83, 5);
INSERT INTO actors VALUES (6, 'Sonu Sood', 47, '7 Aug 1976', 'India', 1.85, 6);
INSERT INTO actors VALUES (7, 'Katrina Kaif', 40, '15 June 1982', 'London', 1.67, 7);
INSERT INTO actors VALUES (8, 'Sara Ali Khan', 32, '8 March 1990', 'India', 1.57, 8);
INSERT INTO actors VALUES (9, 'Leonardo Di Caprio', 48, '11 Nov 1974', 'USA', 1.83, 9);
INSERT INTO actors VALUES (10, 'Michelle Gellar', 45, '14 April 1977', 'USA', 1.63, 10);
INSERT INTO actors VALUES (11, 'Al Pacino', 80, '25 April 1940', 'USA', 1.79, 11);
INSERT INTO actors VALUES (12, 'Anne Hathaway', 40, '12 Nov 1982', 'USA', 1.73, 12);
INSERT INTO actors VALUES (13, 'Brad Pitt', 59, '18 Dec 1983', 'USA', 1.8, 13);
INSERT INTO actors VALUES (14, 'Song Hye-kyo', 41, '22 Nov 1981', 'South Korea', 1.56, 14);
INSERT INTO actors VALUES (15, 'Seol In-ah', 27, '3 Jan 1996', 'South Korea', 1.67, 15);

```

```

update movies
set movie_name='ROCKY 5'
where IDm=1;

```

```

-- update movies
-- set movie_year=xyz
-- where IDm=1;

```

```

SELECT * FROM movies;
SELECT * FROM actors;

```

### OUTPUT:

1	ROCKY 5	2012	USA	Mystic, Crime	8.9	English
2	INTERSTELLAR	2014	USA	Science Fiction	9.2	English
3	CONNECT	2001	USA	Drama	7.2	English
4	INCEPTION	2010	USA	Science Fiction	8.7	English
5	WHIPLASH	2014	USA	Drama	7.9	English
6	PARASITE	2019	Korea	Drama, Thriller	9.3	Korean
7	THE PIANIST	2002	USA	Biography	8.8	English
8	FOCUS	2019	USA	Drama	5.4	English
9	RANG DE BASANTI		2006	India	Drama	7.6 Hindi
10	LAGAAN	2001	India	Drama, Sport	8.8	Hindi
11	SWADES	2004	India	Drama	8.8	Hindi
12	BARFI!	2012	India	Comedy	6.8	Hindi
13	DRISHYAM	2015	India	Crime, Drama	9.1	Hindi

14	ROCK ON!!	2008	India	Music, Drama	7.5	Hindi
15	MASAAN	2015	India	Drama	7.7	Hindi

1	Shah Rukh Khan	50	20 Jan 1973	India	1.74	1
2	Aamir Khan	50	31 May 1972	India	1.55	2
3	Saif Ali Khan	52	4 Aug 1979	India	1.77	3
4	John Abraham	49	5 May 1973	India	1.82	4
5	Abhishek Bacchan	49	6 June 1974	India	1.83	5
6	Sonu Sood	47	7 Aug 1976	India	1.85	6
7	Katrina Kaif	40	15 June 1982	London	1.67	7
8	Sara Ali Khan	32	8 March 1990	India	1.57	8
9	Leonardo Di Caprio	48	11 Nov 1974	USA	1.83	9
10	Michelle Gellar	45	14 April 1977	USA	1.63	10
11	Al Pacino	80	25 April 1940	USA	1.79	11
12	Anne Hathaway	40	12 Nov 1982	USA	1.73	12
13	Brad Pitt	59	18 Dec 1983	USA	1.8	13
14	Song Hye-kyo	41	22 Nov 1981	South Korea	1.56	14
15	Seol In-ah	27	3 Jan 1996	South Korea	1.67	15