## **Updating Data**

This lesson discusses how to use the Update clause in MySQL.

## **Updating Data**

We can use the **UPDATE** statement to change the value of a column for a row or multiple rows.

Example Syntax #

```
UPDATE table
```

SET col1 = val1, col2 = val2, ... coln = valn

WHERE < condition>

ORDER BY col5

LIMIT 5;

Connect to the terminal below by clicking in the widget. Once connected, the command line prompt will show up. Enter or copy-paste the command ./DataJek/Lessons/15lesson.sh and wait for the mysql prompt to start-up.

```
-- The lesson queries are reproduced below for convenient copy/paste into the terminal.
-- Query 1
UPDATE Actors SET NetWorthInMillions=1;
-- Query 2
UPDATE Actors SET NetWorthInMillions=5 ORDER BY FirstName LIMIT 3;
```

UPDATE Actors SET NetWorthInMillions=1;

11 roes in sci (0.00 sec)

Terminal



1. Say Bernie Sanders wins the US Presidential elections and caps the maximum net worth for any individual to be no more than a million dollars. We'd want to update our Actors table in response because all the actors are now worth just one million dollars. The following query modifies the NetWorthInMillions column for all the rows in the table.

## rysel > SFLECT \* FROM Actions; Firsthone | SecondName | DoB Gender | MarstalStatus | NetWorthInWhilinons | 1 1968 12 18 | Male Brad Single 24% 1 1989 11 22 Single Jennife\* 248 Aniston Female: Single Angelina Julie 1 1975 95 24 terale | 122 Single 1 1963 96 89 Male 222 .. onnny Hepp: 1 1981-86-89 Matalic Portnon Male Marrice 1.8 Male lom: Cruise 1 1962-07-23 Utvarced. 3/8 1 1997-88-18 Kylie. Jennen Female | Marrice 1022 | Kanadahian | 1980-12-21 Female | Marrica 372 Amitobh | Bachchan | 1942-18-11 | Male | Married 422 18 Shahrukh Khon 1965-11-82 Male Marrice 622 priyonka | Chepra | 1982-07-18 | Famale | Married 1 11 28 11 rows in set (0.00 sec) mysel> UPDATE Actors SET MetWorthInMillions=1; Query OK, 11 rows affected (3.80 sec) Rows noticed: 11 Changed: 11 Wormings: 0 mysel> SELECT \* FROM Actors; Firstkone | SecondMone | DoB Gender | MaritalStatus | NetWorthIrMillions | | 1965-12-18 | Male | Single Bred Pitt Jennifer | Aniston | 1969-11-82 Female | Single 1 1975-88-84 Female | Single Angelina | Jolie 1 1965-85-85 Note | Single Johnny Верр 1981-98-89 Natalie | Portner Male. Married 1967-87-83 Toot: Eruise Note Kylle: 1 1997-48-10 Female | Married Jennes | Kancashi an | 1989-18-21 Ferale | Rachchan | 1942-18-11 Amil abh Male | Narried Spahrukh | Khan 1 1965-11-87 | Nate Married priyanka | Thepro 1 1962 97 18 | Female | Married

2. We can use **LIMIT** and **ORDER BY** in conjunction to restrict the effects of the update statement. Say, we want to increase the net worth of the first three actors, sorted by first name, to five million dollars. We could achieve that as follows:

```
UPDATE Actors SET NetWorthInMillions=5 ORDER BY FirstName LIMIT 3
;
```

```
mysql> SELECT * FROM Actors ORDER BY FirstNome;
                                                         | Gender | MaritalStatus | NetWorthDeWilliams |
  Id | FirstName | SecondName | DoB
    9 | Anitabh | | Bachchan | | 1942-18-11 | Male | | Married
   3 | Angelina | Jalie | 1975-06-04 | Female | Single | 1 | Brad | Pitt | 1963-12-18 | Male | Single | 2 | Jennifer | Aniston | 1969-11-02 | Female | Single | 4 | Johnny | Depp | 1963-06-09 | Male | Single | 8 | Kin | Kandashian | 1980-12-21 | Female | Married
                                                                                                                                    11
  7 | Kylie | Jenner | 1997-88-18 | Female | Marched
5 | Natalie | Portman | 1981-86-09 | Male | Marched
11 | Priyanka | Chapna | 1982-87-18 | Female | Marched
18 | Shahrukh | Khan | 1985-11-92 | Male | Marched
6 | Ton | Cruise | 1982-87-03 | Male | Divorced
11 rows in set (0.00 sec)
mysql> UPDATE Actors SET NetWorthInMillions=5 ORDER BY FirstName LDMIT 3;
Query OK, 3 rows offected (0.01 sec)
Rows hallched: 3 (hanged: 3 Warmings: 8)
mysql> SELECT * FROM Actors ORDER BY FirstName;
                                                          | Gender | MaritalStatus | NetWorthShMillions |
   Id | FirstName | SecondName | DoR
    9 | Amitabh | Bachonam | 1942-12-11 | Male | Married
    3.1 Angelina | Jolie | 1925-06-04 | Female | Single
1 | Snud | Pitt | 1963-12-18 | Male | Single
    2 | Jennifer | Aniston | 1969-11-02 | Female | Single
4 | Johnny | Depp | 1963-06-09 | Nole | Single
    8 | Kin
7 | Kylie
                         | Kardashian | 1986-18-21 | Fenale | Married
                         | Jenner | | 1937-08-10 | Female | Morried
    5 | Notalie | Portnor | 1981-06-09 | Male | Married
  11 | priyanko | Chopha | 1982-82-18 | Female | Mandied
18 | Shiphrukh | Khon | 1985-11-92 | Male | Mandied
6 | Tan | Cruise | 1982-87-83 | Male | Divorced
                                                                              Divorced
    nows in set (0.00 sec)
```

3. The **UPDATE** statement has two parts. The matching phase and then the modification phase. In the first phase the row/rows that match the query are determined and in the second phase the changes are applied. If we re-execute the update query from the previous step, the count of the number of rows matched will be three but the row count for changes will be zero.

		+		+		ř		+		ļ	-+
9	Arritobh		Sachchan	1	1942-10-11		Nole	1	Married	1 5	1
3	Angelina		Julie	1	1975-86-84		Female	1	Single	1) 5	1
1	Enad		Pill	1	1963-12 18 1		Nale	1	Single	5	1
2	Jenniter		Aniston	1	1969-11-97		Fenale	1	Strigte	1	-1
4	Johnny		Оерр	1	1963-86-03		Mole	1	Single	1. 1	1
8	Kim		Kardastion	.1	1988-10-21		Female	1	Married	1	1
7	Kylic.		Jenner	1	1997-88-18		Female	1	Married	1	1
	Natalie		Portnan	1	1981-86-83 1		Nalo	1	Married	1	1
71	pri yanka		Choppa	1	1982-87-18		Fencie	1	Married	0 1	1
.0	Shahrukh		Knon	1	1965-11-92		Mole	1	Married	1	1
6	Torr		Cruise	1	1952-07-03		Male	1	Divorced	1	1

4. Lastly, we can update multiple columns in an **UPDATE** statement. Say we want to give all the actors fifty million dollars and make them single, we can do so in a single **UPDATE** statement.

```
UPDATE Actors SET NetWorthInMillions=50, MaritalStatus="Single";
```

```
mysgl> SELECT * FROM Actors;
| Id | FirstName | SecondName | DoB | | Gender | MaritalStatus | NetWorthInMillions |
          1 | Brod | Pitt | 1963-12-18 | Male | Single |
2 | Jennifer | Aniston | 1969-11-02 | Female | Single |
3 | Angelina | Jolie | 1975-06-04 | Female | Single |
4 | Johnny | Depp | 1963-06-09 | Male | Single |
5 | Natalie | Portman | 1981-06-09 | Male | Married |
6 | Tom | Cruise | 1962-07-03 | Male | Divorced |
7 | Kylie | Jenner | 1997-08-10 | Female | Married |
8 | Kim | Kardashian | 1980-18-11 | Female | Married |
9 | Amitable | Backsham | 1907-11 | Male | Married |
       9 | Amitabh | Bachchan | 1942-18-11 | Male | Married
10 | Shahrukh | Khan | 1965-11-02 | Male | Married
11 | priyanka | Chopra | 1982-07-18 | Female | Married
11 rows in set (0.00 sec)
mysql> UPDATE Actors SET NetWorthInMillions-50, MaritalStatus="Single";
Query OK, 11 rows affected (0.00 sec)
Rows matched: 11 Changed: 11 Warnings: 0
mysql> SELECT * FROM Actors;
 | Id | FirstName | SecondName | DoB | | Gender | MaritalStatus | NetWorthInMillions |
      1 | 8rad | Pitt | 1963-12-18 | Male | Single | Jennifer | Aniston | 1969-11-02 | Female | Single | 3 | Angelina | Jolie | 1975-06-04 | Female | Single | 4 | Johnny | Depp | 1963-06-09 | Male | Single | Single | Portman | 1981-06-09 | Male | Single | Tom | Cruise | 1962-07-03 | Male | Single | Fixed | Single 
                                                                                                                                                                                                                                                                                                                                                                                                                      50 |
                                                                                                                                                                                                                                                                                                                                                                                                                     50
                                                                                                                                                                                                                                                                                                                                                                                                                      50
                                                                                                                                                                                                                                                                                                                                                                                                                      50
                                                                                                                                                                                                                                                                                                                                                                                                                      50
                                                                                                                                                                                                                                                                                                                                                                                                                      50
                                                                                                                                                                                                                                                                                                                                                                                                                     50
                                                                                                                                                                                                                                                                                                                                                                                                                     50
                                                                                                                                                                                                                                                                                                                                                                                                                      50
                                                                                                                                                                                                                                                                                                                                                                                                                      50
11 rows in set (0.00 sec)
```

