

Worksheet 7 - editing tables

Jo Hardin

2023-01-17

Your Name: _____

Names of people you worked with: _____

- Do you remember everyone's name? On which social media platform/website/TV series do you waste too much of your time?
- What are your plans for the summer? Have you started working toward figuring them out?

Consider the following fictional tables which exist in a fictional hospital database.¹

donor			doctor			organ		
dName	age	bloodType	docName	insurance	rate	donor	organ	available
Alice	53	A+	Wilhelm	HMO	15,000	Alice	Heart	2014
Peter	34	AB+	Wilhelm	PPO	20,000	Bob	Lung	2015
Bob	44	AB-	Heinz	HMO	12,000	Bob	Bladder	2015
Gert	23	A-	Pferd	PPO	14,000	Peter	Foot	2011
						Gert	Lung	2014

patient				takeCare		
pName	insurance	age	bloodType	patient	organ	doctor
Hilde	HMO	13	A-	Hilde	Lung	Wilhelm
Fritz	PPO	87	AB+	Fritz	Heart	Wilhelm

- Variables with black background are the primary keys of a table.
- The variable `donor` of table `organ` is a foreign key to table `donor`.
- The variable `patient` of table `takeCare` is a foreign key to table `patient`.

¹Example taken from <http://cs.iit.edu/~cs425/previous/14fall/>

- The variable `doctor` of table `takeCare` stores doctors. However, it is not a foreign key to table `doctor`, because the primary key of that table also includes insurance information.

Task:

Write **SQL** code to accomplish the following tasks (one **SQL** operation for each of the four tasks).

1. Delete all organs that were available before 2014.
2. Increase the rate of all doctors for HMO insurances by 1,000.
3. Insert a new organ 'Liver' for donor 'Alice' available in '2016'.
4. Update the availability of all hearts to 2016 if their current availability is 2015.

Solution:

1. Delete all organs that were available before 2014.

```
DELETE FROM organ
  WHERE available < 2014;
```

2. Increase the rate of all doctors for HMO insurances by 1,000.

```
UPDATE doctor
  SET rate = rate + 1000
  WHERE insurance = 'HMO'
```

3. Insert a new organ 'Liver' for donor 'Alice' available in '2016'.

```
INSERT INTO organ VALUES ( 'Alice', 'Liver' , 2014);
```

4. Update the availability of all hearts to 2016 if their current availability is 2015.

```
UPDATE organ
  SET available = 2016
  WHERE organ = 'Heart' AND available = 2015;
```