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CS130 Databases

Lab 10 Report

PART A – Updates and Deletes

Lab10 _Q1 Write an update statement which updates the healtstatus of any patient which has healthstatus unknown to healthstatus good. You are asked to answer how many rows are affected by this query.

☆ ***SQL Language:***

UPDATE labexam2_dentist
SET healthstatus = 'Good'
WHERE healthstatus = 'Unknown'

☆ ***Running result:*** *UPDATE 457*

Query Editor | Query History

```
1  UPDATE labexam2_dentist
2  SET healthstatus = 'Good'
3  WHERE healthstatus = 'Unknown'
```

Data Output | Explain | Messages | Notifications

```
UPDATE 457

Query returned successfully in 58 msec.
```

Lab10 _Q2 Write a delete statement which deletes the records corresponding to any patient where the healthstatus or the totalvisits are null. You are asked to answer how many rows are affected by this query.

☆ ***SQL Language:***

DELETE FROM labexam2_dentist
WHERE (healthstatus IS NULL) OR (totalvisits IS NULL)

☆ ***Running result:*** *DELETE 93*

Query Editor | Query History

```
1  DELETE FROM labexam2_dentist
2  WHERE (healthstatus IS NULL) OR (totalvisits IS NULL)
```

Data Output | Explain | Notifications | Messages

```
DELETE 93

Query returned successfully in 49 msec.
```

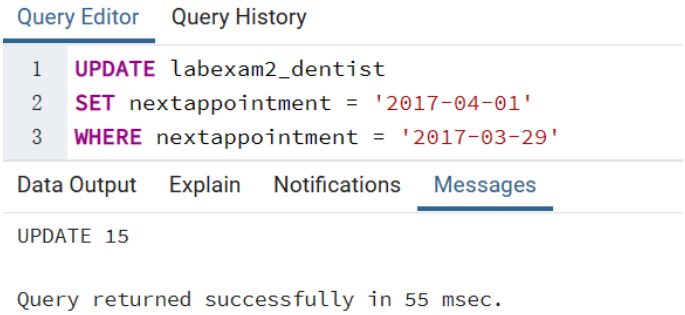
Lab10 _Q3 Write an UPDATE statement which updates the nextappointment date of any patient who has an appointment on the 29th March 2017 to the 1st of April 2017. You are asked to answer how many rows are affected by this query.

☆ ***SQL Language:***

UPDATE labexam2_dentist
SET nextappointment = '2017-04-01'

WHERE nextappointment = '2017–03–29'

☆ ***Running result:*** *UPDATE 15*



Lab10 _Q4 For patients with a nextappointment date on the 1st of February 2017 there was an error with the software managing appointments. The totalvists variable was not incremented. Write an update statement which increments the totalvisits attribute by 1 for any patient which a next appointment date on the 1st of February 2017. You are asked to indicate the number of rows affected by this query.

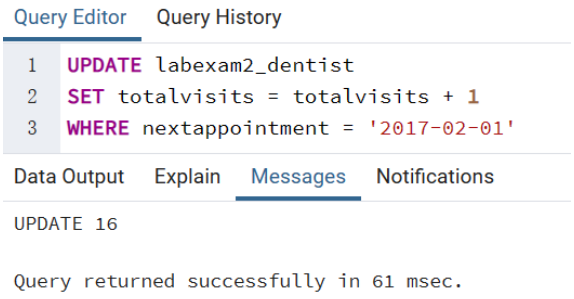
☆ ***SQL Language:***

UPDATE labexam2_dentist

SET totalvisits = totalvisits + 1

WHERE nextappointment = '2017–02–01'

☆ ***Running result:*** *UPDATE 16*



Lab10 _Q5. This dental practice is splitting into two different practices. The new practice will focus on the dental care needs of people aged 20 or under. To compute which patients move to the new practice a simple formula is devised. If the difference between the year (ignoring month and day) of their next appointment and the year (ignoring month and day) of their birth is less than or equal to 20 they must be deleted from this database. Write an SQL statement to perform this deletion. You are asked to indicate the number of rows affected by this query.

☆ ***SQL Language:***

DELETE FROM labexam2_dentist

WHERE DATE_PART('YEAR', nextappointment) – DATE_PART('YEAR', patientdob) <= 20

☆ ***Running result:*** *DELETE 322*

Query Editor Query History

```
1  DELETE FROM labexam2_dentist
2  WHERE DATE_PART('YEAR', nextappointment) - DATE_PART('YEAR', patientdob) <= 20
```

Data Output Explain Messages Notifications

```
DELETE 322

Query returned successfully in 58 msec.
```

Lab10 _Q6: Write an SQL statement which deletes any patient where the ppsumber contains 6 consecutive ODD numbers or the nextappointment is indicated as null. For example, 357195. You are asked to indicate how many rows are affected by this query.

- ☆ ***SQL Language:***

  DELETE FROM LabExam2_Dentist WHERE
  PPSNumber~'.*[1,3,5,7,9][1,3,5,7,9][1,3,5,7,9][1,3,5,7,9][1,3,5,7,9][1,3,5,7,9].*'*
  OR nextappointment IS NULL
- ☆ ***Running result:*** *DELETE 158*

Query Editor Query History

```
1  DELETE FROM LabExam2_Dentist WHERE
2  PPSNumber~*'.*[1,3,5,7,9][1,3,5,7,9][1,3,5,7,9][1,3,5,7,9][1,3,5,7,9][1,3,5,7,9].*'
3  OR nextappointment IS NULL
```

Data Output Explain Messages Notifications

```
DELETE 158

Query returned successfully in 54 msec.
```

PART B – JOINS

Lab10 _Q7 Write an SQL Join Query which lists all of the FEMALE AirB&B users who have status Professional who have stayed in cities with a population of greater than 1 million people. You are asked to specify the number of rows returned by this query.

- ☆ ***SQL Language:***

  *SELECT * FROM labexam2_visited AS t1*
  JOIN labexam2_people AS t2 ON (t1.bbid = t2.bbid)
  JOIN labexam2_cities AS t3 ON (t1.statekey = t3.statekey)
  WHERE t2.gender = 'Female'
  AND t2.status = 'Professional'
  AND t3.population > 1000000
- ☆ ***Running result:*** *9 rows affected*

Query Editor | Query History

```
SELECT * FROM labexam2_visited AS t1
JOIN labexam2_people AS t2 ON (t1.bbid = t2.bbid)
JOIN labexam2_cities AS t3 ON (t1.statekey = t3.statekey)
WHERE t2.gender = 'Female'
AND t2.status = 'Professional'
AND t3.population > 1000000
```

Messages

```
Successfully run. Total query runtime: 80 msec.
9 rows affected.
```

Data Output | Explain | Notifications

	bbid text	statekey text	bbid text	customer text	gender text	status text	statekey text	name text	population integer	state character	elev_in_m integer
1	BB469	CA87	BB469	Louise Garza	Female	Professional	CA87	Los Angeles	3792621	CA	89
2	CB416	NY121	CB416	Alice Diaz	Female	Professional	NY121	Brooklyn	2565635	NY	15
3	BB433	NY121	BB433	Frances Ellis	Female	Professional	NY121	Brooklyn	2565635	NY	15
4	BB433	NY122	BB433	Frances Ellis	Female	Professional	NY122	Queens	2272771	NY	12
5	BB834	PA16	BB834	Jacqueline ...	Female	Professional	PA16	Philadelphia	1526006	PA	14

Lab10 _Q8 Write an SQL Join Query which lists all of the MALE AirB&B users who have visited cities in the state of California (denoted in the state column as CA). You are asked to specify the number of rows returned by this query.

☆ ***SQL Language:***

```
SELECT * FROM labexam2_visited AS t1
JOIN labexam2_people AS t2 ON (t1.bbid = t2.bbid)
JOIN labexam2_cities AS t3 ON (t1.statekey = t3.statekey)
WHERE t2.gender = 'Male'
AND t3.state = 'CA'
```

☆ ***Running result:*** *11 rows affected*

Query Editor | Query History

```
SELECT * FROM labexam2_visited AS t1
JOIN labexam2_people AS t2 ON (t1.bbid = t2.bbid)
JOIN labexam2_cities AS t3 ON (t1.statekey = t3.statekey)
WHERE t2.gender = 'Male'
AND t3.state = 'CA'
```

Messages

```
Successfully run. Total query runtime: 61 msec.
11 rows affected.
```

Data Output | Explain | Notifications

	bbid text	statekey text	bbid text	customer text	gender text	status text	statekey text	name text	population integer	state character	elev_in_m integer
1	BB394	CA87	BB394	Charles Tho...	Male	Tourist	CA87	Los Angeles	3792621	CA	89
2	BB625	CA87	BB625	Russell Hun...	Male	Tourist	CA87	Los Angeles	3792621	CA	89
3	BB705	CA87	BB705	Steven Evans	Male	Professional	CA87	Los Angeles	3792621	CA	89
4	BB984	CA87	BB984	Paul Hunt	Male	Tourist	CA87	Los Angeles	3792621	CA	89
5	BB126	CA110	BB126	David Bryant	Male	Tourist	CA110	San Diego	1307402	CA	19

Lab10_Q9 Write an SQL Join Query which lists all of the AirB&B customers (with status = tourist) who have visited any of the following cities: Spokane, El Paso, Henderson or Wi chita. You are asked to specify the number of rows returned by this query.

☆ ***SQL Language:***

```
SELECT * FROM labexam2_visited AS t1
JOIN labexam2_people AS t2 ON (t1.bbid = t2.bbid)
JOIN labexam2_cities AS t3 ON (t1.statekey = t3.statekey)
WHERE t2.status = 'Tourist'
AND t3.name IN ('Spokane', 'El Paso', 'Henderson', 'Wichita')
```

☆ ***Running result:*** *8 rows affected*

Query Editor | Query History

```
SELECT * FROM labexam2_visited AS t1
JOIN labexam2_people AS t2 ON (t1.bbid = t2.bbid)
JOIN labexam2_cities AS t3 ON (t1.statekey = t3.statekey)
WHERE t2.status = 'Tourist'
AND t3.name IN ('Spokane', 'El Paso', 'Henderson', 'Wichita')
```

Messages

```
Successfully run. Total query runtime: 51 msec.
8 rows affected.
```

Data Output | Explain | Notifications

	bbid text	statekey text	bbid text	customer text	gender text	status text	statekey text	name text	population integer	state character	elev_in_m integer
1	BB625	TX96	BB625	Russell Hun...	Male	Tourist	TX96	El Paso	649121	TX	1133
2	CB257	TX96	CB257	Ruth Franklin	Female	Tourist	TX96	El Paso	649121	TX	1133
3	BB939	WA99	BB939	Paul Ruiz	Male	Tourist	WA99	Spokane	208916	WA	572
4	BB984	WA99	BB984	Paul Hunt	Male	Tourist	WA99	Spokane	208916	WA	572
5	BB765	WA99	BB765	Ryan Bowm...	Male	Tourist	WA99	Spokane	208916	WA	572

Lab10 _Q10 Considering only FEMALE AirB&B customers write an SQL Join which lists all of the cities visited by these customers. You should order the results in descending order of the elevation in meters (elev_in_m) of the cities visited. You are asked to specify the BBID of the Female AirB&B customer who visited the city with highest elevation in meters but whose BBID is alphabetically first in the list of females to visit this s pecific city.

☆ ***SQL Language:***

```
SELECT * FROM labexam2_visited AS t1
JOIN labexam2_people AS t2 ON (t1.bbid = t2.bbid)
JOIN labexam2_cities AS t3 ON (t1.statekey = t3.statekey)
WHERE t2.gender = 'Female'
ORDER BY t2.bbid, t3.elev_in_m DESC
```

☆ ***Running result:*** *73 rows affected*

Query Editor | Query History

```
SELECT * FROM labexam2_visited AS t1
JOIN labexam2_people AS t2 ON (t1.bbid = t2.bbid)
JOIN labexam2_cities AS t3 ON (t1.statekey = t3.statekey)
WHERE t2.gender = 'Female'
ORDER BY t2.bbid, t3.elev_in_m DESC
```

Messages

```
Successfully run. Total query runtime: 54 msec.
73 rows affected.
```

Data Output | Explain | Notifications

	bbid text	statekey text	bbid text	customer text	gender text	status text	statekey text	name text	population integer	state character	elev_in_m integer
1	BB005	ID115	BB005	Judith Gree...	Female	Tourist	ID115	Boise	205671	ID	823
2	BB005	KS20	BB005	Judith Gree...	Female	Tourist	KS20	Wichita	382368	KS	397
3	BB005	WA100	BB005	Judith Gree...	Female	Tourist	WA100	Seattle	608660	WA	54
4	BB010	NC50	BB010	Wanda Burt...	Female	Tourist	NC50	Charlotte	731424	NC	232
5	BB010	TX74	BB010	Wanda Burt...	Female	Tourist	TX74	Austin	790390	TX	149

Lab10 _Q11 Delete the AirB&B users called Paul Hunt and Deborah Kelley from the database. What is the total number of rows affected by this deletion? You are asked to specify the total number of rows affected.

☆ ***SQL Language:***

```
SELECT * FROM labexam2_visited AS t1
JOIN labexam2_people AS t2 ON (t1.bbid = t2.bbid)
JOIN labexam2_cities AS t3 ON (t1.statekey = t3.statekey)
WHERE t2.customer IN ('Paul Hunt', 'Deborah Kelley');
```

Running result: *7 rows affected*

Query Editor | Query History

```
SELECT * FROM labexam2_visited AS t1
JOIN labexam2_people AS t2 ON (t1.bbid = t2.bbid)
JOIN labexam2_cities AS t3 ON (t1.statekey = t3.statekey)
WHERE t2.customer IN ('Paul Hunt', 'Deborah Kelley');
```

Messages

```
Successfully run. Total query runtime: 45 msec.
7 rows affected.
```

Data Output | Explain | Notifications

	bbid text	statekey text	bbid text	customer text	gender text	status text	statekey text	name text	population integer	state character	elev_in_m integer
1	BB984	CA87	BB984	Paul Hunt	Male	Tourist	CA87	Los Angeles	3792621	CA	89
2	BB028	CA110	BB028	Deborah Kel...	Female	Professi...	CA110	San Diego	1307402	CA	19
3	BB984	NC50	BB984	Paul Hunt	Male	Tourist	NC50	Charlotte	731424	NC	232
4	BB984	MD18	BB984	Paul Hunt	Male	Tourist	MD18	Baltimore	620961	MD	10
5	BB028	MD18	BB028	Deborah Kel...	Female	Professi...	MD18	Baltimore	620961	MD	10
6	BB028	MA12	BB028	Deborah Kel...	Female	Professi...	MA12	Boston	617594	MA	14
7	BB984	WA99	BB984	Paul Hunt	Male	Tourist	WA99	Spokane	208916	WA	572

☆ ***SQL Language:***

DELETE FROM labexam2_people

WHERE customer IN ('Paul Hunt', 'Deborah Kelley');

Running result: *DELETE 2*

Query Editor | Query History

```
DELETE FROM labexam2_people
WHERE customer IN ('Paul Hunt', 'Deborah Kelley');
```

Messages

```
DELETE 2

Query returned successfully in 59 msec.
```

☆ ***Total number of rows affected:*** *7 + 2 = 9*

Lab10 _Q12 Due to a legal dispute the city of San Jose must be removed from the database. All visits to this city must also be deleted. Write an SQL statement which deletes the city of San Jose from the database. You are asked to specify the total number of rows affected.

☆ ***SQL Language:***

*SELECT * FROM labexam2_visited AS t1*

JOIN labexam2_people AS t2 ON (t1.bbid = t2.bbid)

JOIN labexam2_cities AS t3 ON (t1.statekey = t3.statekey)

WHERE t3.name = 'San Jose'

Running result: *8 rows affected*

Query Editor | Query History

```
SELECT * FROM labexam2_visited AS t1
JOIN labexam2_people AS t2 ON (t1.bbid = t2.bbid)
JOIN labexam2_cities AS t3 ON (t1.statekey = t3.statekey)
WHERE t3.name = 'San Jose'
```

Messages

```
Successfully run. Total query runtime: 69 msec.
8 rows affected.
```

Data Output | Explain | Notifications

	bbid text	statekey text	bbid text	customer text	gender text	status text	statekey text	name text	population integer	state character varying (2)
1	BB063	CA104	BB063	Stephanie ...	Female	High Sc...	CA104	San ...	945942	CA
2	BB705	CA104	BB705	Steven Evans	Male	Profess...	CA104	San ...	945942	CA
3	BB231	CA104	BB231	Randy How...	Male	Tourist	CA104	San ...	945942	CA
4	CB864	CA104	CB864	Alice Murphy	Female	Universi...	CA104	San ...	945942	CA
5	BB540	CA104	BB540	Carolyn Har...	Female	Tourist	CA104	San ...	945942	CA

☆ ***SQL Language:***

DELETE FROM labexam2_cities

WHERE name = 'San Jose'

Running result: *DELETE 1*

Query Editor | Query History

```
1  DELETE FROM labexam2_cities
2  WHERE name = 'San Jose'
```

Messages

```
DELETE 1

Query returned
successfully in 58 msec.
```

☆ ***Total number of rows affected:*** *8 + 1 = 9*