0/10 Questions Answered

Vitamin 1

STUDENT NAME

Search students by name or email...

Q1 All Distinct Continents

4 Points

NOTE: For all questions follow SQL conventions as they were presented in class. For the entire vitamin, assume that cities.name is unique.

In this Vitamin you will create some simple SQL queries to exercise what you have learned so far after the first 2 modules.

We also encourage you to write your queries in SQLFiddle and then transcribe those solutions into Gradescope.

Some clarifications: The "wrong number of duplicates" and "out of order" options refer specifically to the case where we have all of the correct rows and none of the wrong rows.

For the first question complete the SQL Query questions below.

Do the following queries achieve the goal of finding all of the continents (without duplicates)?

The tables being used in these queries follow the schemas:

```
countries : (country_id, name, continent, gdp, primary key (countr

cities : (city_id, name, country_id, primary key (city_id),
foreign key (country_id) references countries)

travelers : (tid, name, arrived, dest_id, primary key (tid, arrive
foreign key (dest_id) references cities)
```

For a more interactive experience, use these fully built SQLFiddle Tables (or DBFiddle Tables if SQLFiddle is unresponsive). Then, transcribe your answer from SQLFiddle into the Gradescope questions below.

Q1.1

```
SELECT DISTINCT continent
FROM countries;
```

Does this query achieve the goal of finding all of the continents (without duplicates)?

- ○ Correct query
- ○ Incorrect output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q1.2

```
SELECT continent
FROM countries;
```

Does this query achieve the goal of finding all of the continents (without duplicates)?

- Correct query
- Incorrect output schema
- Output may be missing rows from the correct answer (false negatives)
- Output may contain incorrect rows (false positives)
- Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q1.3

```
SELECT continent
FROM countries
GROUP BY continent;
```

Does this query achieve the goal of finding all of the continents (without duplicates)?

- Correct query
- Incorrect output schema
- Output may be missing rows from the correct answer (false negatives)
- Output may contain incorrect rows (false positives)
- Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- Output may not be ordered properly (the output contains all of

the correct rows and none of the incorrect rows).

Q1.4

```
SELECT continent
FROM countries
GROUP BY continent
HAVING count(*) > 1;
```

Does this query achieve the goal of finding all of the continents (without duplicates)?

- ○ Correct query
- ○ Incorrect output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Save Answer

Q2 Travelers and Their Destinations

4 Points

Complete the SQL Query questions below.

Do the following queries achieve the goal of finding all the travelers and the names of the cities they traveled to?

The tables being used in these queries follow the schemas:

```
countries : (country_id, name, continent, gdp, primary key (countr

cities : (city_id, name, country_id, primary key (city_id),
foreign key (country_id) references countries)

travelers : (tid, name, arrived, dest_id, primary key (tid, arrive
foreign key (dest_id) references cities)
```

For a more interactive experience, use these fully built SQLFiddle Tables. Then, transcribe your answer from SQLFiddle into the Gradescope question below.

Q2.1

```
SELECT travelers
FROM cities, travelers
WHERE city_id = dest_id;
```

Does this query achieve the goal of finding all the travelers and the names of the cities they traveled to?

- ○ Correct query
- ○ Incorrect output schema/Query Errors
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q2.2

```
SELECT name, name
FROM cities, travelers
WHERE city_id = dest_id;
```

Does this query achieve the goal of finding all the travelers and the names of the cities they traveled to?

- ○ Correct query
- ○ Incorrect output schema/Query Errors
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q2.3

```
SELECT travelers.name, cities.name
FROM cities, travelers
WHERE city_id = dest_id;
```

Does this query achieve the goal of finding all the travelers and the names of the cities they traveled to?

- ○ Correct query
- ○ Incorrect output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates.

- ○ Output may not be ordered properly.

Q2.4

```
SELECT travelers.name, cities.name
FROM cities, travelers, countries
WHERE city_id = dest_id and cities.country_id = countries.country_
```

Does this query achieve the goal of finding all the travelers and the names of the cities they traveled to?

- ○ Correct query
- ○ Incorrect output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Save Answer

Q3 Highest GDP

4 Points

Complete the SQL Query questions below.

Do the following queries achieve the goal of finding the name(s) of the country(ies) with the highest GDP?

The tables being used in these queries follow the schemas:

```
countries : (country_id, name, continent, gdp, primary key (countr

cities : (city_id, name, country_id, primary key (city_id),
foreign key (country_id) references countries)

travelers : (tid, name, arrived, dest_id, primary key (tid, arrive
foreign key (dest_id) references cities)
```

For a more interactive experience, use these fully built SQLFiddle Tables. Then, transcribe your answer from SQLFiddle into the Gradescope question below.

Q3.1

```
SELECT name
FROM countries
ORDER BY gdp
LIMIT 1;
```

Does this query achieve the goal of finding the name(s) of the country(ies) with the highest GDP?

- ○ Correct query
- ○ Output may have both false negatives and false positives
- ○ Output may be missing rows from the correct answer (false negatives), but does not have false positives
- ○ Output may contain incorrect rows (false positives), but does not have false negatives
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q3.2

```
SELECT name
FROM countries
ORDER BY gdp desc
LIMIT 1;
```

Does this query achieve the goal of finding the name(s) of the country(ies) with the highest GDP?

- ○ Correct query
- ○ Incorrect output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q3.3

```
SELECT name
FROM countries
WHERE NOT EXISTS
    (SELECT gdp
    FROM countries as countries2
    WHERE countries2.gdp > countries.gdp);
```

Does this query achieve the goal of finding the name(s) of the country(ies) with the highest GDP?

- ○ Correct query
- ○ Incorrect output schema
- ○ Output may be missing rows from the correct answer (false

negatives)

- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q3.4

```
SELECT name
FROM countries
WHERE gdp >= ALL
    (SELECT max(gdp)
    FROM countries);
```

Does this query achieve the goal of finding the name(s) of the country(ies) with the highest GDP?

- ○ Correct query
- ○ Incorrect output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Save Answer

Q4 Average GDP of Europe

4 Points

Complete the SQL Query questions below.

Do the following queries achieve the goal of finding the average GDP of Europe?

The tables being used in these queries follow the schemas:

```
countries : (country_id, name, continent, gdp, primary key (countr

cities : (city_id, name, country_id, primary key (city_id),
foreign key (country_id) references countries)

travelers : (tid, name, arrived, dest_id, primary key (tid, arrive
foreign key (dest_id) references cities)
```

For a more interactive experience, use these fully built SQLFiddle Tables. Then, transcribe your answer from SQLFiddle into the Gradescope question below.

Q4.1

```
SELECT AVG(gdp)
FROM countries;
```

Does this query achieve the goal of finding the average GDP of Europe?

- ○ Correct query
- ○ Incorrect output/output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows)

contains all of the correct rows and none of the incorrect rows).

- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q4.2

```
SELECT AVG(gdp)
FROM countries
WHERE continent = 'Europe';
```

Does this query achieve the goal of finding the average GDP of Europe?

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q4.3

```
SELECT gdp
FROM countries
GROUP BY continent
HAVING name = 'Europe';
```

Does this query achieve the goal of finding the average GDP of Europe?

- ○ Correct query

- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q4.4

```
SELECT gdp
FROM
    (SELECT AVG(gdp) as gdp, continent
        FROM countries
        GROUP BY continent) as averages
WHERE continent = 'Europe';
```

Does this query achieve the goal of finding the average GDP of Europe?

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Save Answer

Q5 Number of Times Visited

4 Points

Complete the SQL Query questions below.

Do the following queries achieve the goal of finding how many times each city has been traveled to?

The tables being used in these queries follow the schemas:

```
countries : (country_id, name, continent, gdp, primary key (countr

cities : (city_id, name, country_id, primary key (city_id),
foreign key (country_id) references countries)

travelers : (tid, name, arrived, dest_id, primary key (tid, arrive
foreign key (dest_id) references cities)
```

For a more interactive experience, use these fully built SQLFiddle Tables. Then, transcribe your answer from SQLFiddle into the Gradescope question below.

Q5.1

```
SELECT c.name, count(dest_id)
FROM cities c, travelers t
WHERE city_id = dest_id
GROUP BY city_id;
```

Does this query achieve the goal of finding how many times each city has been traveled to?

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false

- Output may be missing rows from the correct answer (false negatives)
- Output may contain incorrect rows (false positives)
- Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q5.2

```
SELECT c.name, count(dest_id)
FROM cities c, travelers t
GROUP BY c.name;
```

Does this query achieve the goal of finding how many times each city has been traveled to?

- Correct query
- Incorrect output/ output schema
- Output may be missing rows from the correct answer (false negatives)
- Output may contain incorrect rows (false positives)
- Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q5.3

```
SELECT c.name,  SUM(incr)
FROM
cities c,
  (SELECT c.name city_name, dest_id, 1 as incr
```

```
  FROM cities c, travelers
  WHERE city_id = dest_id) as counts
WHERE c.name = counts.city_name
GROUP BY c.name;
```

Does this query achieve the goal of finding how many times each city has been traveled to?

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q5.4

```
SELECT SUM(incr), c.name
FROM
cities c,
  (SELECT dest_id as name, 1 as incr
  FROM travelers
  ) as counts
WHERE counts.name = c.name
GROUP BY c.name;
```

Does this query achieve the goal of finding how many times each city has been traveled to?

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)

negatives)

- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Save Answer

Q6 Visited More Than Once

6 Points

Complete the SQL Query questions below.

Do the following queries achieve the goal of finding the name(s) of each city that's been traveled to more than once?

The tables being used in these queries follow the schemas:

```
countries : (country_id, name, continent, gdp, primary key (countr

cities : (city_id, name, country_id, primary key (city_id),
foreign key (country_id) references countries)

travelers : (tid, name, arrived, dest_id, primary key (tid, arrive
foreign key (dest_id) references cities)
```

For a more interactive experience, use these fully built SQLFiddle Tables. Then, transcribe your answer from SQLFiddle into the Gradescope question below.

6.1

```
SELECT cities.name
```

```
FROM cities, travelers
WHERE city_id = dest_id
GROUP BY cities.name, city_id
HAVING COUNT(*) > 1;
```

Does this query achieve the goal of finding the name(s) of each city that's been traveled to more than once?

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

6.2

```
SELECT cities.name
FROM cities, travelers
WHERE city_id = dest_id
GROUP BY cities.name, city_id
HAVING count(*) >=
    ( SELECT count(*)
    FROM cities, travelers
    WHERE city_id = dest_id
    GROUP BY city_id
    ORDER BY count(*) Desc limit 1);
```

Does this query achieve the goal of finding the names of cities traveled to more than once? (Assume the top city/cities are visited > 1 time.)

- ○ Correct query

- Incorrect output/ output schema
- Output may be missing rows from the correct answer (false negatives)
- Output may contain incorrect rows (false positives)
- Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

6.3

```
SELECT cities.name
FROM cities, travelers
WHERE city_id = dest_id
GROUP BY cities.name, city_id
ORDER BY count(*) desc
LIMIT 1;
```

Does this query achieve the goal of finding the names of cities traveled to more than once? (Assume the top city/cities are visited > 1 time.)

- Correct query
- Incorrect output schema
- Output may be missing rows from the correct answer (false negatives)
- Output may contain incorrect rows (false positives)
- Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

6.4

```
SELECT DISTINCT cities.name
FROM cities, travelers
WHERE city_id = dest_id
GROUP BY cities.name, city_id
HAVING count(*) > 1;
```

Does this query achieve the goal of finding the name(s) of each city that's been traveled to more than once?

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

6.5

```
Select DISTINCT cities.name
FROM cities

EXCEPT

SELECT cities.name
FROM cities LEFT OUTER JOIN travelers ON dest_id=city_id
GROUP BY cities.name, city_id
having count(*) = 1 or count(*) = 0;
```

Does this query achieve the goal of finding the name(s) of each city that's been traveled to more than once?

- ○ Correct query

- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

6.6

```
Select DISTINCT cities.name
FROM cities

EXCEPT

SELECT cities.name
FROM cities, travelers
WHERE city_id = dest_id
GROUP BY cities.name, city_id
having count(*) = 1 or count(*) = 0;
```

Does this query achieve the goal of finding the name(s) of each city that's been traveled to more than once?

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Save Answer

Q7 Most Traveled to City

4 Points

Complete the SQL Query questions below.

Do the following queries achieve the goal of finding the name(s) of the most traveled to city(s)?

The tables being used in these queries follow the schemas:

```
countries : (country_id, name, continent, gdp, primary key (countr

cities : (city_id, name, country_id, primary key (city_id),
foreign key (country_id) references countries)

travelers : (tid, name, arrived, dest_id, primary key (tid, arrive
foreign key (dest_id) references cities)
```

For a more interactive experience, use these fully built SQLFiddle Tables. Then, transcribe your answer from SQLFiddle into the Gradescope question below.

Q7.1

```
SELECT cities.name
FROM cities, travelers
WHERE city_id = dest_id
GROUP BY cities.name
HAVING count(*) >=
    ( SELECT count(*)
    FROM cities, travelers
    WHERE city_id = dest_id
    GROUP BY city_id
```

```
    ORDER BY count(*) Desc limit 1);
```

Does this query achieve the goal of finding the name(s) of the most traveled to city(s)?

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q7.2

```
SELECT cities.name
FROM cities, travelers
WHERE city_id = dest_id
GROUP BY cities.name
ORDER BY count(*) desc
LIMIT 1;
```

Does this query achieve the goal of finding the name(s) of the most traveled to city(s)?

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows)

contains all of the correct rows and none of the incorrect rows).

- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q7.3

```
SELECT DISTINCT cities.name
FROM cities, travelers
WHERE city_id = dest_id
GROUP BY cities.name
HAVING count(*) > 1;
```

Does this query achieve the goal of finding the name(s) of the most traveled to city(s)?

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q7.4

```
SELECT cities.name, count(*)
FROM cities, travelers
WHERE city_id = dest_id
GROUP BY dest_id
ORDER BY count(*) desc
LIMIT 1;
```

Does this query achieve the goal of finding the name(s) of the most

Does this query achieve the goal of finding the name(s) of the most traveled to city(s)?

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Save Answer

Q8 Travelers and their Destinations WITH NULL VALUES

4 Points

Complete the SQL Query questions below.

Do the following queries achieve the goal of finding the name of all travelers and the city they traveled to? Note that we want all of the travelers no matter what, but we don't need all of the cities.

The tables being used in these queries follow the schemas:

```
countries : (country_id, name, continent, gdp, primary key (countr

cities : (city_id, name, country_id, primary key (city_id),
foreign key (country_id) references countries)

travelers : (tid, name, arrived, dest_id, primary key (tid, arrive
foreign key (dest_id) references cities)
```

For a more interactive experience, use these fully built SQLFiddle Tables. Then, transcribe your answer from SQLFiddle into the Gradescope question below.

Q8.1

```
SELECT travelers.name, cities.name
FROM travelers left outer join cities on city_id = dest_id;
```

Does this query achieve the goal of finding the name of all travelers and the city they traveled to? Note that we want all of the travelers no matter what, but we don't need all of the cities.

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect or extra rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q8.2

```
SELECT travelers.name, cities.name
FROM travelers right outer join cities on city_id = dest_id;
```

Does this query achieve the goal of finding the name of all travelers and the city they traveled to? Note that we want all of the travelers no matter what, but we don't need all of the cities.

- ○ Correct query

- Correct query
- Output may only be missing rows from the correct answer (false negatives)
- Output may only contain incorrect or extra rows (false positives)
- Output may have both false negatives and false positives
- Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q8.3

```
SELECT travelers.name, cities.name
FROM travelers right outer join cities on city_id = dest_id

EXCEPT

SELECT travelers.name, cities.name
FROM travelers right outer join cities on city_id = dest_id
WHERE travelers.name IS NULL;
```

Does this query achieve the goal of finding the name of all travelers and the city they traveled to? Note that we want all of the travelers no matter what, but we don't need all of the cities.

- Correct query
- Incorrect output/ output schema
- Output may be missing rows from the correct answer (false negatives)
- Output may contain incorrect rows (false positives)
- Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows)

the correct rows and none of the incorrect rows).

Q8.4

```
SELECT travelers.name, cities.name
FROM travelers full outer join cities on city_id = dest_id

EXCEPT

SELECT travelers.name, cities.name
FROM travelers right outer join cities on city_id = dest_id
WHERE travelers.name IS NULL;
```

Does this query achieve the goal of finding the name of all travelers and the city they traveled to? Note that we want all of the travelers no matter what, but we don't need all of the cities.

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- ○ Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Save Answer

Q9 Unvisited Cities

3 Points

Complete the SQL Query questions below.

Do the following queries achieve the goal of finding the names of the cities to which nobody has traveled?

The tables being used in these queries follow the schemas:

```
countries : (country_id, name, continent, gdp, primary key (countr

cities : (city_id, name, country_id, primary key (city_id),
foreign key (country_id) references countries)

travelers : (tid, name, arrived, dest_id, primary key (tid, arrive
foreign key (dest_id) references cities)
```

For a more interactive experience, use these fully built SQLFiddle Tables. Then, transcribe your answer from SQLFiddle into the Gradescope question below.

Q9.1

```
SELECT cities.name
FROM cities
WHERE NOT EXISTS

  (SELECT dest_id
  FROM travelers t
  WHERE dest_id = city_id);
```

Does this query achieve the goal of finding the names of the cities to which nobody has traveled?

- ○ Correct query
- ○ Incorrect output/ output schema
- ○ Output may be missing rows from the correct answer (false negatives)
- ○ Output may contain incorrect rows (false positives)
- ○ Output may have the wrong number of duplicates (the output

contains all of the correct rows and none of the incorrect rows).

- Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q9.2

```
SELECT cities.name
FROM cities, travelers
WHERE city_id = dest_id and dest_id IS NULL;
```

Does this query achieve the goal of finding the names of the cities to which nobody has traveled?

- Correct query
- Incorrect output/ output schema
- Output may be missing rows from the correct answer (false negatives)
- Output may contain incorrect rows (false positives)
- Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Q9.3

```
SELECT cities.name
FROM cities LEFT OUTER JOIN travelers ON dest_id = city_id
WHERE dest_id IS NULL;
```

Does this query achieve the goal of finding the names of the cities to which nobody has traveled?

- Correct query

- Incorrect output/ output schema
- Output may be missing rows from the correct answer (false negatives)
- Output may contain incorrect rows (false positives)
- Output may have the wrong number of duplicates (the output contains all of the correct rows and none of the incorrect rows).
- Output may not be ordered properly (the output contains all of the correct rows and none of the incorrect rows).

Save Answer

Q10 Wrap Up

1 Point

Check all answers that are true.

- [ ] A natural join attempts to join two tables on their columns that have the same name
- [ ] aggregates can be used in a WHERE clause (ie where count(*) = 4)
- [ ] Aggregates require a GROUP BY clause
- [ ] HAVING is like a WHERE clause however it only applies to the groups created in the GROUP BY clause
- [ ] X left outer join Y is equal to Y right outer join X for queries that explicitly SELECT columns
- [ ] Tables must be referenced by their full names rather than aliases

Save Answer

Save All Answers

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