

Quiz 4 Solutions

For all the questions in this quiz, please use the data from the following table:

```
bigquery-public-data.chicago_taxi_trips.taxi_trips
```

In this quiz you will practice where clauses on a **TIMESTAMP** field.

You will also practice the **extract** function to extract a feature (such as hour for example) from a **TIMESTAMP** column. In this quiz you will also be counting taxi trips. You can use the column **unique_key**, which is a unique identifier for each trip, along with **count distinct** to count the number of taxi trips in a given scenario. For example:

```
SELECT  COUNT(DISTINCT unique_key) AS num_trips
FROM    `bigquery-public-data.chicago_taxi_trips.taxi_trips`
WHERE    extract(week from trip_start_timestamp) = 52
```

1.

How many taxi trips started on 2015-12-31?

```
SELECT COUNT(DISTINCT unique_key) AS num_trips FROM `bigquery-public-data.chicago_taxi_trips.taxi_trips` WHERE
CAST(trip_start_timestamp AS date) = '2015-12-31'
```

2.

How many taxi trips started between 2015-12-23 and 2015-12-27? Include these two dates in your query.

```
SELECT COUNT(DISTINCT unique_key) AS num_trips FROM `bigquery-public-data.chicago_taxi_trips.taxi_trips` WHERE trip_start_timestamp
>= '2015-12-23' AND trip_start_timestamp <= '2015-12-27'
```

3.

How many trips started in the hours of (9,10,11,12) for all the years in the dataset except for 2016? That is, exclude any trip in the year 2016 from your answer.

```
SELECT COUNT(DISTINCT unique_key) AS num_trips FROM `bigquery-public-data.chicago_taxi_trips.taxi_trips` WHERE extract(hour from
trip_start_timestamp) in (9,10,11,12) and extract(year from trip_start_timestamp) != 2016
```

4.

How many trips started within the 9th hour of the day (i.e. hour = 9) on October 31st from all the years strictly before 2017?

```
SELECT  COUNT(DISTINCT unique_key) AS num_trips
FROM    `bigquery-public-data.chicago_taxi_trips.taxi_trips`
WHERE    extract(hour from trip_start_timestamp) = 9
          and extract(day from trip_start_timestamp) = 31
          and extract(month from trip_start_timestamp) = 10
          and extract(year from trip_start_timestamp) < 2017
```

5.

Using only the years 2014 and 2016, how many trips started in the 16th week all together from both these two years?

```
SELECT  COUNT(DISTINCT unique_key) AS num_trips
FROM    `bigquery-public-data.chicago_taxi_trips.taxi_trips`
WHERE    extract(week from trip_start_timestamp) = 16
          and extract(year from trip_start_timestamp) in (2014,2016)
```