```
select * from `usa_baby_names`;


/*Find names that have been given to over 5,000 babies of either sex every year for the 101 years from 1920 through 2020;
 recall that names only show up in our dataset when at least 5,000 babies have been given that name in a year.*/

 select first_name, sum(num)
 from usa_baby_names
group by first_name
having count(year)=101
order by sum(num) desc;

 #Classify each name's popularity according to the number of years that the name appears in the dataset.#

 select first_name, sum(num),
 case when count(year)> 80 then 'Classic'
  when count(year)> 50 then 'Semi_classic'
  when count(year)> 20 then 'Semi_trendy'
 else 'Trendy' end as popularity_type
from usa_baby_names
group by first_name
order by first_name;


 select first_name, sum(num),
 case when count(year)> 80 then 'Classic'
  when count(year)> 50 then 'Semi_classic'
  when count(year)> 20 then 'Semi_trendy'
 else 'Trendy' end as popularity_type
from usa_baby_names
group by first_name
order by sum(num) desc
limit 15;


#Let's take a look at the ten highest-ranked American female names in our dataset.#

SELECT rank () over(order by sum(num) desc) as name_rank,
first_name, sum(num)
FROM usa_baby_names
where sex = 'F'
group by first_name
limit 10;
```

#Let's take a look at the ten highest-ranked American male names in our dataset.#

```
SELECT rank () over(order by sum(num) desc) as name_rank,
first_name, sum(num)
FROM usa_baby_names
where sex = 'M'
group by first_name
limit 10;
```

/* Return a list of first names which meet this friend's baby name criteria. Select only the first_name column.
Filter the data for results where sex equals 'F', the year is greater than 2015, and the first_name ends in an 'a.'
Group the data by first_name and order by the total number of babies ever given that first_name, descending.*/

```
select first_name, sum(num)
from usa_baby_names
where sex ='F'
AND YEAR > 2015
AND First_name like '%a'
group by first_name
order by sum(num) desc
limit 10;
```

/* Find the cumulative number of babies named Olivia over the years since the name first appeared in our dataset.

Select year, first_name, num of Olivias in that year, and cumulative_olivias.
Using a window function, sum the cumulative number of babies who have ever been named Olivia up to that year;
alias as cumulative_olivias. Filter the results so that only data for the name Olivia is returned.
Order the results by year from the earliest year Olivia appeared in the dataset to the most recent.*/

```
select year, first_name, num,
sum(num) over (order by year) as cumulative_olivias
from usa_baby_names
where first_name ='Olivia'
order by year;
```

/* Write a query that selects the year and the maximum num of babies given any male name in that year.

Select the year and the maximum num of babies given any one male name in that year; alias the maximum as max_num.
Filter the data to include only results where sex equals 'M'*/

```
select year, max(num) as max_num_male
from usa_baby_names
where sex = 'M'
GROUP BY YEAR
ORDER BY max_num_male desc
limit 20;
```

/* Using the previous task's code as a subquery, look up the first_name that corresponds to the maximum number of babies given a specific male name in a year.

Select year, the first_name given to the largest number of male babies, and num of babies given the first_name that year.
Join baby_names to the code in the last task as a subquery, using whatever alias you like and joining on both columns in the subquery.
Order the results by year, starting with the most recent year.*/

```
select b.year, b.first_name, b.num
from usa_baby_names as b

inner join (select year, max(num) AS max_num
from usa_baby_names
where sex ='M'
group by year) as subquery

on subquery.year = b.year
and subquery.max_num= b.num
order by year desc
limit 10;
```

```
select b.year, b.first_name, b.num
from usa_baby_names as b

inner join (select year, max(num) AS max_num
from usa_baby_names
where sex ='M'
group by year) as subquery

on subquery.year = b.year
and subquery.max_num= b.num
order by max_num desc
limit 10;
```

/* Return a list of first names that have been the top male first name in any year along with

a count of the number of years that name has been the top name.

Select first_name and a count of the number of years that the first_name appeared as a year's top name
in the last task; alias this count as count_top_name.
To do this, use the code from the previous task as a common table expression.
Group by first_name and order the results from the name with the most years at the top to the name with the fewest.*/

```
WITH top_male_names AS (
   SELECT b.year, b.first_name, b.num
   FROM usa_baby_names AS b
   INNER JOIN (
      SELECT year, MAX(num) num
      FROM usa_baby_names
      WHERE sex = 'M'
      GROUP BY year) AS subquery
   ON subquery.year = b.year
      AND subquery.num = b.num
   ORDER BY YEAR DESC
   )
SELECT first_name, COUNT(first_name) as count_top_name
FROM top_male_names
GROUP BY first_name
ORDER BY COUNT(first_name) DESC;
```