

## 1. Find the number of rows in the table?

The screenshot shows a SQL IDE with a script editor and a results pane. The script editor contains several SQL queries for joining tables and a final query to count rows in the `project.payroll_csv` table. The results pane shows the output of the count query.

```
--Join ratings_small and links_small table on column movieid
--select * from lecture.ratings_small join lecture.links_small on lecture.ratings_small.movieid=lecture.links_small.movieid

--Inner Join ratings_small and links_small table on column movieid
--select * from lecture.ratings_small inner join lecture.links_small on lecture.ratings_small.movieid=lecture.links_small.movieid

--Left Join ratings_small and links_small table on column movieid\
--select * from lecture.ratings_small left join lecture.links_small on lecture.ratings_small.movieid=lecture.links_small.movieid

--Right Join ratings_small and links_small table on column movieid
--select * from lecture.ratings_small right join lecture.links_small on lecture.ratings_small.movieid=lecture.links_small.movieid

--Full Join ratings_small and links_small table on column movieid
--select * from lecture.ratings_small full join lecture.links_small on lecture.ratings_small.movieid=lecture.links_small.movieid

--***** PROJECT
select count(*) from project.payroll_csv
```

Results 1 x

count
1161078

## 2. What are the columns that are there in the table?

Columns	Column Name	#	Data type	Identity	Collation	Not Null	Default	Comment
123	year	1	int4			[ ]		
123	agency_co...	2	int4			[ ]		
npc	employee_...	3	varchar(32)		default	[ ]		
npc	agency_na...	4	varchar(32)		default	[ ]		
npc	title_code	5	varchar(8)		default	[ ]		
npc	pay_class	6	varchar(8)		default	[ ]		
npc	salary_rate...	7	varchar(16)		default	[ ]		
123	salary_rate	8	int4			[ ]		

## 3. What are the data types of columns in the table?

Columns	Column Name	#	Data type	Iden
123	year	1	int4	
123	agency_co...	2	int4	
npc	employee_...	3	varchar(32)	
npc	agency_na...	4	varchar(32)	
npc	title_code	5	varchar(8)	
npc	pay_class	6	varchar(8)	
npc	salary_rate...	7	varchar(16)	
123	salary_rate	8	int4	

## 4. Find the employee that got paid the highest in each of the calendar year?(i.e.. 2014,2015 and so on)

```
select project.payroll_csv."year", max(project.payroll_csv.salary_rate) from project.payroll_csv group by project.payroll_csv."year"
```

```
select project.payroll_csv."year", max(project.payroll_csv.salary_rate) from project.payroll_csv group by project.payroll_csv."year"
```

	year	max
1	2,014	300,000
2	2,015	350,000
3	2,016	350,000
4	2,017	350,000

5. What is the average salary rate in each calendar year?

```
select project.payroll_csv."year", avg(project.payroll_csv.salary_rate) as AVG_Salary from
project.payroll_csv where project.payroll_csv."year" in(2014,2015,2016,2017) group by
project.payroll_csv."year"
```

```
----->
--TO find the distinct years
--select distinct(project.payroll_csv."year") from project.payroll_csv

--To find the average of each year
select project.payroll_csv."year", avg(project.payroll_csv.salary_rate) as AVG_Salary from project.payroll_csv where project.payroll_csv."y"
```

	year	avg_salary
1	2,014	54,143.6491969256
2	2,015	52,384.2557466581
3	2,016	56,299.9700791411
4	2,017	55,708.2475474628

6. What is the max salary rate in each calendar year?(i.e.. 2014, 2015 and so on)

```
select project.payroll_csv."year", max(project.payroll_csv.salary_rate) as max_Salary from
project.payroll_csv where project.payroll_csv."year" in(2014,2015,2016,2017) group by
project.payroll_csv."year"
```

```
----->
--TO find the distinct years
--select distinct(project.payroll_csv."year") from project.payroll_csv

--To find the average of each year
--select project.payroll_csv."year", avg(project.payroll_csv.salary_rate) as AVG_Salary from project.payroll_csv where project.payroll_csv."y"

--TO find the max salary of each year
select project.payroll_csv."year", max(project.payroll_csv.salary_rate) as max_Salary from project.payroll_csv where project.payroll_csv."y"
```

	year	max_salary
	2,014	300,000
	2,015	350,000
	2,016	350,000
	2,017	350,000

7. What is the max salary rate among all calendar years?

```
--MAX Salary among all years
select max(project.payroll_csv.salary_rate) from project.payroll_csv
```

Results 1 x

```
select max(project.payroll_csv.salary_rate) from
```

	max
1	350,000

Value x  
350000

8. Find the max salary paid by agency 56 in any of the calendar years?

```
select project.payroll_csv."year", max(project.payroll_csv.salary_rate) from project.payroll_csv where
project.payroll_csv.agency_code=56 group by project.payroll_csv."year"
```

```
--Find the max salary paid by agency 56 in any of the calendar years?
select project.payroll_csv."year", max(project.payroll_csv.salary_rate) from project.payroll_csv where project.payroll_csv.agency_code=56
```

payroll\_csv 1 x

```
select project.payroll_csv."year", max(project.p
```

	year	max
1	2,014	205,180
2	2,015	219,773
3	2,016	226,366
4	2,017	226,366

Value x  
2014

9. Find the max salary paid by agency 868 in any of the calendar years?

```
select project.payroll_csv."year", project.payroll_csv.agency_code,
max(project.payroll_csv.salary_rate) from project.payroll_csv where
project.payroll_csv.agency_code=868 group by project.payroll_csv."year",
project.payroll_csv.agency_code
```

```
--Find the max salary paid by agency 868 in any of the calendar years?
select project.payroll_csv."year", project.payroll_csv.agency_code, max(project.payroll_csv.salary_rate) from project.payroll_csv where
```

payroll\_csv 1 payroll\_csv 2 payroll\_csv 3 x

```
select project.payroll_csv."year", project.payroll_csv.agency_code, max(project.payroll_csv.salary_rate) from project.payroll_csv where
```

	year	agency_code	max
1	2,014	868	205,180
2	2,015	868	219,773
3	2,016	868	226,366
4	2,017	868	226,366

Value x  
2014

10. Which title code has max average salary in any of the calendar years?

```
select project.payroll_csv.title_code, avg(project.payroll_csv.salary_rate) from
project.payroll_csv group by project.payroll_csv.title_code order by
avg(project.payroll_csv.salary_rate) desc
```

--Find the max salary paid by agency 868 in any of the calendar years?  
--select project.payroll\_csv."year", project.payroll\_csv.agency\_code, max(project.payroll\_csv.salary\_rate) from project.payroll\_csv where p

--Which title code has max average salary in any of the calendar years?  
--select project.payroll\_csv."year", project.payroll\_csv.title\_code, avg(project.payroll\_csv.salary\_rate) from project.payroll\_csv group by

--select \* from project.payroll\_csv where project.payroll\_csv.title\_code=12707::varchar

--select project.payroll\_csv.title\_code, avg(project.payroll\_csv.salary\_rate) from project.payroll\_csv where project.payroll\_csv.title\_code

**select project.payroll\_csv.title\_code, avg(project.payroll\_csv.salary\_rate) from project.payroll\_csv group by project.payroll\_csv.title\_code**

title_code	avg
12707	318,644.5
40735	287,512.3333333333
12942	262,817.75
95612	250,960
166	235,000
94450	234,282.3333333333
383	234,000
12995	233,437.5
10192	231,522.5714285714
12940	227,925.8461538462
94465	226,882
94488	224,576
95450	224,168.3333333333

Save Cancel Script 200 200+ Rows: 1 200 row(s) fetched - 422ms, on Mar 31, 15:11:24

11. Count the number of records that are present for each agency code

```
select project.payroll_csv.agency_code, count(project.payroll_csv.agency_code) from
project.payroll_csv group by project.payroll_csv.agency_code
```

--Count the number of records that are present for each agency code

**select project.payroll\_csv.agency\_code, count(project.payroll\_csv.agency\_code) from project.payroll\_csv group by project.payroll\_csv.agency\_code**

agency_code	count
2	2,030
3	3,317
4	440
8	150
9	1,813
10	215
11	231
12	278
13	243
14	182

## 12. Count the number of records that are present for each agency name

```
select project.payroll_csv.agency_name, count(project.payroll_csv.agency_name) from
project.payroll_csv group by project.payroll_csv.agency_name
```

--Count the number of records that are present for each agency name

```
select project.payroll_csv.agency_name, count(project.payroll_csv.agency_name) from project.payroll_csv group by project.payroll_csv.agency_name
```

Results 12 | payroll\_csv 13 | payroll\_csv 14 | payroll\_csv 15 | payroll\_csv 16 | payroll\_csv 17 | payroll\_csv 18 | payroll\_csv 19 | payroll\_csv 20

select project.payroll\_csv.agency\_name, count(project.payroll\_csv.agency\_name) from project.payroll\_csv group by project.payroll\_csv.agency\_name

	agency_name	count
1	ADMINISTRATION FOR CHILDRE	25,917
2	BOARD OF CORRECTIONS	90
3	BOARD OF ELECTIONS	3,317
4	BOROUGH PRESIDENT-BRONX	231
5	BOROUGH PRESIDENT-BROOKLYN	278
6	BOROUGH PRESIDENT-MANHATTA	215
7	BOROUGH PRESIDENT-QUEENS	243
8	BOROUGH PRESIDENT-RICHMOND	182
9	BUSINESS INTEGRITY COMMISS	338
10	CAMPAIGN FINANCE BOARD	440
11	CITY CLERK	301
12	CITY COUNCIL	3,162
13	CIVILIAN COMPLAINT REVIEW	748

## 13. Count the number of records that are present for each pay class

```
select project.payroll_csv.pay_class, count(project.payroll_csv.pay_class) from project.payroll_csv
group by project.payroll_csv.pay_class
```

--Count the number of records that are present for each pay class

```
select project.payroll_csv.pay_class, count(project.payroll_csv.pay_class) from project.payroll_csv group by project.payroll_csv.pay_class
```

Results 12 | payroll\_csv 13 | payroll\_csv 14 | payroll\_csv 15 | payroll\_csv 16 | payroll\_csv 17 | payroll\_csv 18 | payroll\_csv 19 | payroll\_csv 20

select project.payroll\_csv.pay\_class, count(project.payroll\_csv.pay\_class) from project.payroll\_csv group by project.payroll\_csv.pay\_class

	pay_class	count
1	0	6
2	1	50,583
3	2	2,895
4	3	76,115
5	4	90,222
6	A	436,066
7	B	13,336
8	BW	6,727
9	D	235,175
10	E	5,372
11	F	26,144
12	G	4,422
13	I	4,243