Connection code:
cd
cd xampp
cd mysql
cd bin
mysql –u root –p –h 127.0.0.1
Create any database and in such database create a table named employee with the following columns by considering employee_id as primary key

employee(empoyee_id,first_name,last_name, age,address, department,postion,salary)
Syntax:

Field	Type	Null	Key	Default	Extra
employee_id	int(11)	NO	PRI	NULL	
first_name	varchar(20)	YES		NULL	
last_name	varchar(20)	YES		NULL	
age	int(11)	YES		NULL	
address	varchar(30)	YES		NULL	
department	varchar(30)	YES		NULL	
position	varchar(30)	YES		NULL	
salary	decimal(10,2)	YES		NULL	

Now insert at least any 10 records of employee.
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
1	anish	sharma	26	kathmandu	finance	manager	80000.25
2	roshan	pokhrel	28	pokhara	sales	analyst	60000.45
3	aakriti	bagale	30	butwal	purchase	manager	95000.52
4	rojina	karki	25	pokhara	marketing	manager	85000.55
5	keshav	ghimire	35	kathmandu	purchase	analyst	65000.35
6	roshan	pandey	38	chitwan	operations	analyst	70000.12
7	sita	pokhrel	23	lalitpur	marketing	analyst	68000.85
8	srijana	bhattrai	29	butwal	finance	analyst	62000.65
9	niraj	acharya	40	kathmandu	sales	manager	90000.54
10	nikita	giri	15	pokhara	purchase	secretary	25000.86

Arithmetic, logical and relational operators

1. Display the first_name and last_name of employee whose deparment is finance.

Syntax:

first_name	last_name
anish	sharma
srijana	bhattrai

2. Display all the information of employee in employee table whose address is not Kathmandu

Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
2	roshan	pokhrel	28	pokhara	sales	analyst	60000.45
3	aakriti	bagale	30	butwal	purchase	manager	95000.52
4	rojina	karki	25	pokhara	marketing	manager	85000.55
6	roshan	pandey	38	chitwan	operations	analyst	70000.12
7	sita	pokhrel	23	lalitpur	marketing	analyst	68000.85
8	srijana	bhattrai	29	butwal	finance	analyst	62000.65
10	nikita	giri	15	pokhara	purchase	secretary	25000.86

3. Increment the salary of all employees by 15%

Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
1	anish	sharma	26	kathmandu	finance	manager	87400.28
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
3	aakriti	bagale	30	butwal	purchase	manager	103788.07
4	rojina	karki	25	pokhara	marketing	manager	92863.10
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
6	roshan	pandey	38	chitwan	operations	analyst	80500.14
7	sita	pokhrel	23	lalitpur	marketing	analyst	78200.98
8	srijana	bhattrai	29	butwal	finance	analyst	71300.75
9	niraj	acharya	40	kathmandu	sales	manager	98325.59
10	nikita	giri	15	pokhara	purchase	secretary	28750.99

4. Decrease the salary of manager by 5%

Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
1	anish	sharma	26	kathmandu	finance	manager	87400.28
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
3	aakriti	bagale	30	butwal	purchase	manager	103788.07
4	rojina	karki	25	pokhara	marketing	manager	92863.10
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
6	roshan	pandey	38	chitwan	operations	analyst	80500.14
7	sita	pokhrel	23	lalitpur	marketing	analyst	78200.98
8	srijana	bhattrai	29	butwal	finance	analyst	71300.75
9	niraj	acharya	40	kathmandu	sales	manager	98325.59
10	nikita	giri	15	pokhara	purchase	secretary	28750.99

5. Delete information of employee whose age is less than 18
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
1	anish	sharma	26	kathmandu	finance	manager	87400.28
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
3	aakriti	bagale	30	butwal	purchase	manager	103788.07
4	rojina	karki	25	pokhara	marketing	manager	92863.10
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
6	roshan	pandey	38	chitwan	operations	analyst	80500.14
7	sita	pokhrel	23	lalitpur	marketing	analyst	78200.98
8	srijana	bhattrai	29	butwal	finance	analyst	71300.75
9	niraj	acharya	40	kathmandu	sales	manager	98325.59

6. Display the position of employee whose salary is greater than or equals to 50000
Syntax:

position
manager
analyst

7. Display information of employee whose position is manager and address is Kathmandu
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
1	anish	sharma	26	kathmandu	finance	manager	87400.28
9	niraj	acharya	40	kathmandu	sales	manager	98325.59

8. Display information of employee whose positon is manager or address is Kathmandu
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
1	anish	sharma	26	kathmandu	finance	manager	87400.28
3	aakriti	bagale	30	butwal	purchase	manager	103788.07
4	rojina	karki	25	pokhara	marketing	manager	92863.10
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
9	niraj	acharya	40	kathmandu	sales	manager	98325.59

9. Display information of employee who either live in pokhara or kathmandu but age is greater than 25
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
1	anish	sharma	26	kathmandu	finance	manager	87400.28
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
9	niraj	acharya	40	kathmandu	sales	manager	98325.59

10. Display first_name,last_name and position of employee whose salary is in the range of 70000 to 80000
Syntax:

first_name	last_name	position
keshav	ghimire	analyst
sita	pokhrel	analyst
srijana	bhattrai	analyst

11. Display first_name,last_name and position of employee whose salary is not in the range of 70000 to 80000
Syntax:

first_name	last_name	position
anish	sharma	manager
roshan	pokhrel	analyst
aakriti	bagale	manager
rojina	karki	manager
roshan	pandey	analyst
niraj	acharya	manager

12. Display the information of employee whose salary is equal to 69000, 30000, and 35000, 40000, 71300, 80500
Syntax:

```
Empty set (0.001 sec)
```

13. Display information of employee whose department is (sales, purchase) but not salary equal to (69000,71300,80500)
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
3	aakriti	bagale	30	butwal	purchase	manager	103788.07
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
9	niraj	acharya	40	kathmandu	sales	manager	98325.59

Like operator with wildcard characters

14. Display information of employees whose first_name starts with letter 'a'
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
1	anish	sharma	26	kathmandu	finance	manager	87400.28
3	aakriti	bagale	30	butwal	purchase	manager	103788.07

15. Display information of employees whose first_name starts with letter 'ro'
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
4	rojina	karki	25	pokhara	marketing	manager	92863.10
6	roshan	pandey	38	chitwan	operations	analyst	80500.14

16. Display information of employees whose last_name ends with letter 'el'
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
7	sita	pokhrel	23	lalitpur	marketing	analyst	78200.98

17. Display information of employees whose first_name has exactly six characters
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
4	rojina	karki	25	pokhara	marketing	manager	92863.10
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
6	roshan	pandey	38	chitwan	operations	analyst	80500.14

18. Display information of employees whose first_name starts with r and has exactly six characters
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
4	rojina	karki	25	pokhara	marketing	manager	92863.10
6	roshan	pandey	38	chitwan	operations	analyst	80500.14

19. Display the information of employees which contains substring of first_name as 'sha'
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
6	roshan	pandey	38	chitwan	operations	analyst	80500.14

20. Display information of employees whose second position of first_name contains letter 'o'
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
4	rojina	karki	25	pokhara	marketing	manager	92863.10
6	roshan	pandey	38	chitwan	operations	analyst	80500.14

21. Display the information of employees whose third postion of first_name contains the letter ‘s’

Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
6	roshan	pandey	38	chitwan	operations	analyst	80500.14

22. Display information of employees which have first_name of at least six characters

Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
3	aakriti	bagale	30	butwal	purchase	manager	103788.07
4	rojina	karki	25	pokhara	marketing	manager	92863.10
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
6	roshan	pandey	38	chitwan	operations	analyst	80500.14
8	srijana	bhattrai	29	butwal	finance	analyst	71300.75

23. Display the information of employees whose first_name begins with a,k,m,s,r .

Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
1	anish	sharma	26	kathmandu	finance	manager	87400.28
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
3	aakriti	bagale	30	butwal	purchase	manager	103788.07
4	rojina	karki	25	pokhara	marketing	manager	92863.10
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
6	roshan	pandey	38	chitwan	operations	analyst	80500.14
7	sita	pokhrel	23	lalitpur	marketing	analyst	78200.98
8	srijana	bhattrai	29	butwal	finance	analyst	71300.75

24. Display information of employees whose first_name begins with [a-s] and ends with l

Syntax:

```
Empty set (0.001 sec)
```

25.Display information of employees whose first_name does not start with d but ends with h

Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
1	anish	sharma	26	kathmandu	finance	manager	87400.28

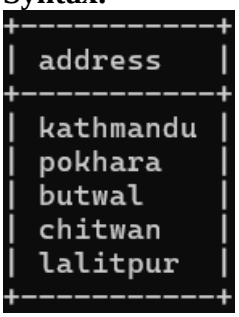
DISTINCT

26. Display the different position available for employee

Syntax:

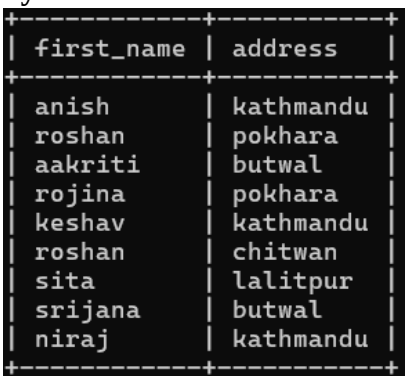
position
manager
analyst

27. List out the unique address available for employee table
Syntax:



address
kathmandu
pokhara
butwal
chitwan
lalitpur

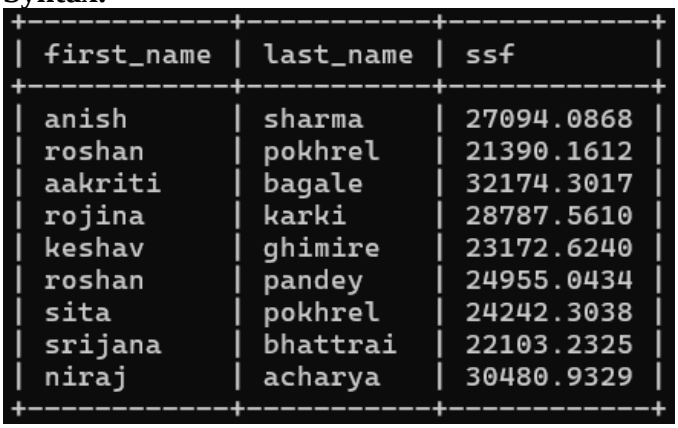
28. List out the employee who have unique first_name and address
Syntax:



first_name	address
anish	kathmandu
roshan	pokhara
aakriti	butwal
rojina	pokhara
keshav	kathmandu
roshan	chitwan
sita	lalitpur
srijana	butwal
niraj	kathmandu

AS

29. Write a query to get first_name,last_name , ssf of all employees .ssf is calculated as 31% of salary
Syntax:



first_name	last_name	ssf
anish	sharma	27094.0868
roshan	pokhrel	21390.1612
aakriti	bagale	32174.3017
rojina	karki	28787.5610
keshav	ghimire	23172.6240
roshan	pandey	24955.0434
sita	pokhrel	24242.3038
srijana	bhattrai	22103.2325
niraj	acharya	30480.9329

30. Write a query to get the employee _id, name (first_name, last_name), location (address) from employee

Syntax:

employee_id	name	location
1	anish sharma	kathmandu
2	roshan pokhrel	pokhara
3	aakriti bagale	butwal
4	rojina karki	pokhara
5	keshav ghimire	kathmandu
6	roshan pandey	chitwan
7	sita pokhrel	lalitpur
8	srijana bhattrai	butwal
9	niraj acharya	kathmandu

ORDER BY

31. Display the information of employees in ascending order by address

Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
3	aakriti	bagale	30	butwal	purchase	manager	103788.07
8	srijana	bhattrai	29	butwal	finance	analyst	71300.75
6	roshan	pandey	38	chitwan	operations	analyst	80500.14
1	anish	sharma	26	kathmandu	finance	manager	87400.28
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
9	niraj	acharya	40	kathmandu	sales	manager	98325.59
7	sita	pokhrel	23	lalitpur	marketing	analyst	78200.98
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
4	rojina	karki	25	pokhara	marketing	manager	92863.10

32. Display the information of employees in descending order by address

Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
4	rojina	karki	25	pokhara	marketing	manager	92863.10
7	sita	pokhrel	23	lalitpur	marketing	analyst	78200.98
1	anish	sharma	26	kathmandu	finance	manager	87400.28
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
9	niraj	acharya	40	kathmandu	sales	manager	98325.59
6	roshan	pandey	38	chitwan	operations	analyst	80500.14
3	aakriti	bagale	30	butwal	purchase	manager	103788.07
8	srijana	bhattrai	29	butwal	finance	analyst	71300.75

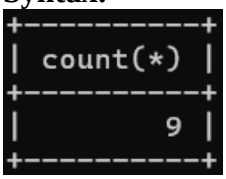
33. Display the information of employees in ascending order by address and department

Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
8	srijana	bhattrai	29	butwal	finance	analyst	71300.75
3	aakriti	bagale	30	butwal	purchase	manager	103788.07
6	roshan	pandey	38	chitwan	operations	analyst	80500.14
1	anish	sharma	26	kathmandu	finance	manager	87400.28
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
9	niraj	acharya	40	kathmandu	sales	manager	98325.59
7	sita	pokhrel	23	lalitpur	marketing	analyst	78200.98
4	rojina	karki	25	pokhara	marketing	manager	92863.10
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52

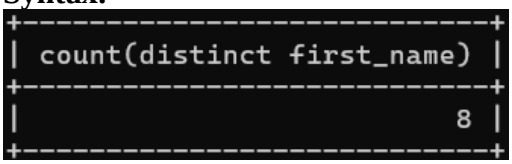
Aggregate functions

34. Count the number of employees
Syntax:



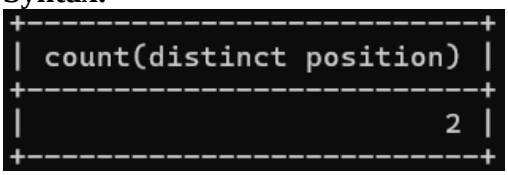
```
+----------+
| count(*) |
+----------+
|        9 |
+----------+
```

35. Count the number of unique first_name of employees
Syntax:



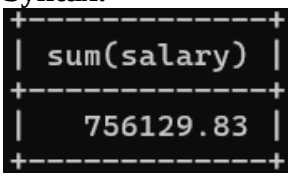
```
+---------------------------+
| count(distinct first_name) |
+---------------------------+
|                         8 |
+---------------------------+
```

36. To get the number of different number of positions available for employees table
Syntax:



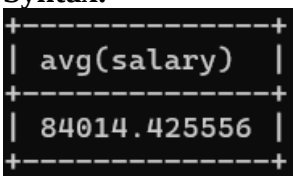
```
+--------------------------+
| count(distinct position) |
+--------------------------+
|                        2 |
+--------------------------+
```

37. To get the total salaries payable to employees.
Syntax:



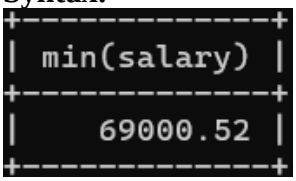
```
+-------------+
| sum(salary) |
+-------------+
|   756129.83 |
+-------------+
```

38. Find the average salary of employess
Syntax:



```
+--------------+
| avg(salary)  |
+--------------+
| 84014.425556 |
+--------------+
```

39. Find the minimum salary of employess
Syntax:



```
+-------------+
| min(salary) |
+-------------+
|    69000.52 |
+-------------+
```

40. Display first_name, last_name of employees with highest salary
Syntax:

first_name	last_name
aakriti	bagale

41. Display first_name,last_name whose salary is less than average salary of all employees
Syntax:

first_name	last_name
roshan	pokhrel
keshav	ghimire
roshan	pandey
sita	pokhrel
srijana	bhattrai

GROUP BY and HAVING clause

42. Find the average salary of employees in each department
Syntax:

department	average_salary
finance	79350.515000
marketing	85532.040000
operations	80500.140000
purchase	89269.235000
sales	83663.055000

43.Find the average salary of employees for each position
Syntax:

position	average_salary
analyst	74750.558000
manager	95594.260000

44.Find the department with their average salary is greater than 60000
Syntax:

department	average_salary
finance	79350.515000
marketing	85532.040000
operations	80500.140000
purchase	89269.235000
sales	83663.055000

45. Find the position of the employee in which average salary of position is greater than 60000
Syntax:

position
analyst
manager

Subquery

46. Display information of employee whose salary is greater than average salary of all employees
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
1	anish	sharma	26	kathmandu	finance	manager	87400.28
3	aakriti	bagale	30	butwal	purchase	manager	103788.07
4	rojina	karki	25	pokhara	marketing	manager	92863.10
9	niraj	acharya	40	kathmandu	sales	manager	98325.59

47. Display information of employee whose salary is greater than at least one employee of finance department.

Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
1	anish	sharma	26	kathmandu	finance	manager	87400.28
3	aakriti	bagale	30	butwal	purchase	manager	103788.07
4	rojina	karki	25	pokhara	marketing	manager	92863.10
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
6	roshan	pandey	38	chitwan	operations	analyst	80500.14
7	sita	pokhrel	23	lalitpur	marketing	analyst	78200.98
9	niraj	acharya	40	kathmandu	sales	manager	98325.59

48. Display information of employee whose salary is greater than that of all employees of finance department.
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
3	aakriti	bagale	30	butwal	purchase	manager	103788.07
4	rojina	karki	25	pokhara	marketing	manager	92863.10
9	niraj	acharya	40	kathmandu	sales	manager	98325.59

49. Increase the salary of employees by 10% whose salary is greater than the average salary of all employees.
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
1	anish	sharma	26	kathmandu	finance	manager	96140.31
2	roshan	pokhrel	28	pokhara	sales	analyst	69000.52
3	aakriti	bagale	30	butwal	purchase	manager	114166.88
4	rojina	karki	25	pokhara	marketing	manager	102149.41
5	keshav	ghimire	35	kathmandu	purchase	analyst	74750.40
6	roshan	pandey	38	chitwan	operations	analyst	80500.14
7	sita	pokhrel	23	lalitpur	marketing	analyst	78200.98
8	srijana	bhattrai	29	butwal	finance	analyst	71300.75
9	niraj	acharya	40	kathmandu	sales	manager	108158.15

50. Delete the information of employees whose salary is less than average salary of all employees.
Syntax:

employee_id	first_name	last_name	age	address	department	position	salary
1	anish	sharma	26	kathmandu	finance	manager	96140.31
3	aakriti	bagale	30	butwal	purchase	manager	114166.88
4	rojina	karki	25	pokhara	marketing	manager	102149.41
9	niraj	acharya	40	kathmandu	sales	manager	108158.15

Discussion:

Conclusion: