# Employee management





NAME - VIVEK NAYAK

**BATCH - T406** 

**FACULTY INCHARGE – SANDIP JAISWAR** 

#### **ABSTRACT:**

Employee management system is an application based system, having two applications developed, one for employers to manage employee details and another for employees to mark their attendance. Every organization whether government or private uses an information system to store data of their staff. However, in India it is found that many small scale industries use pen and paper to keep a record. However, there are many advanced technology systems available that can do this work but they all are costly for these low level industries. This paper discusses making a system for solving problems for them at a cheaper cost. This system will mark attendance of each employee and calculate the salary of them at the end of month. It also calculates overtime and total working hours of each employee. As in small scale each company has their own holiday's preference and variable week off for employees, so all this power is given to the employer to manage holidays and week days of each employee separately. It saves lots of time and has no error in pay calculation hence preventing clashes between HR Team and employees. So that both employer and employee can focus on their work to develop their company.

#### **AIM OF PROJECT:**

THE MAIN GOAL OF PROJECT OF THE EMPLOYEE MANAGEMENT SYSTEM IS TO ENSURE THAT MANAGE EMPLOYEE INFORMATION, SUCH AS PERSONS DETAILS, JOB TITLES, SALARIES, LEAVES AND PAYROLL USING SQL.

#### **INTRODUCTION:**

An HR management system streamlines the HR functions by managing business operations by the department.

Employee management systems are designed to monitor, assess, and control the working hours of employees in order to utilize their resources efficiently. The payrolls are also done on time with the help of payroll software.

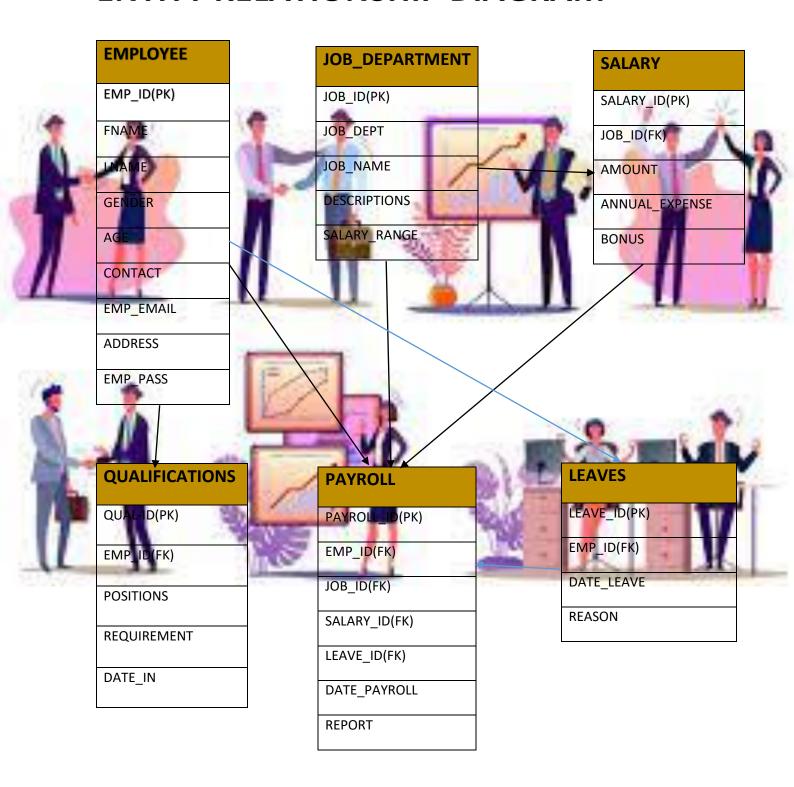
Employee Management Software or labour management is an organizational process that meets the productivity, social, and practical requirements of employees. Also, it helps recruit employees, on board, and enhance their performance up to mark.

Employee management provides many direct and indirect responsibilities to human resources. Have a look at some of them:

- Investment
- Engagement and Retention
- Productivity Management
- Benefits and Payroll



# **ENTITY RELATIONSHIP DIAGRAM**





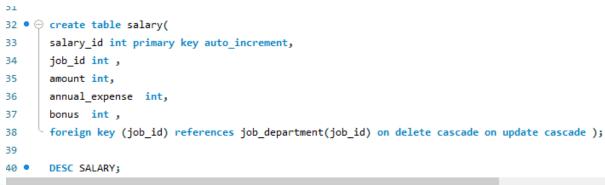
#### **STRUCTURE OF TABLE:**

#### **❖** EMPLOYEE

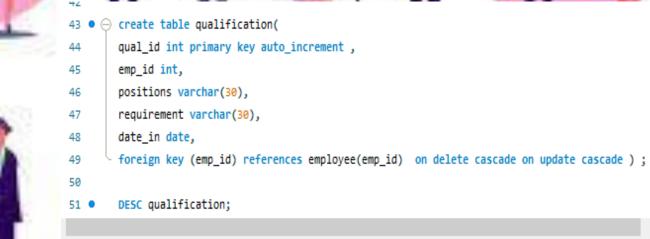


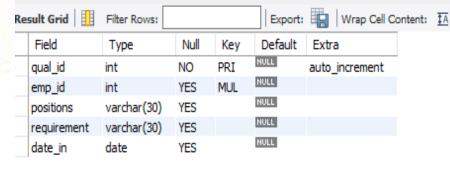


#### **❖ SALARY**

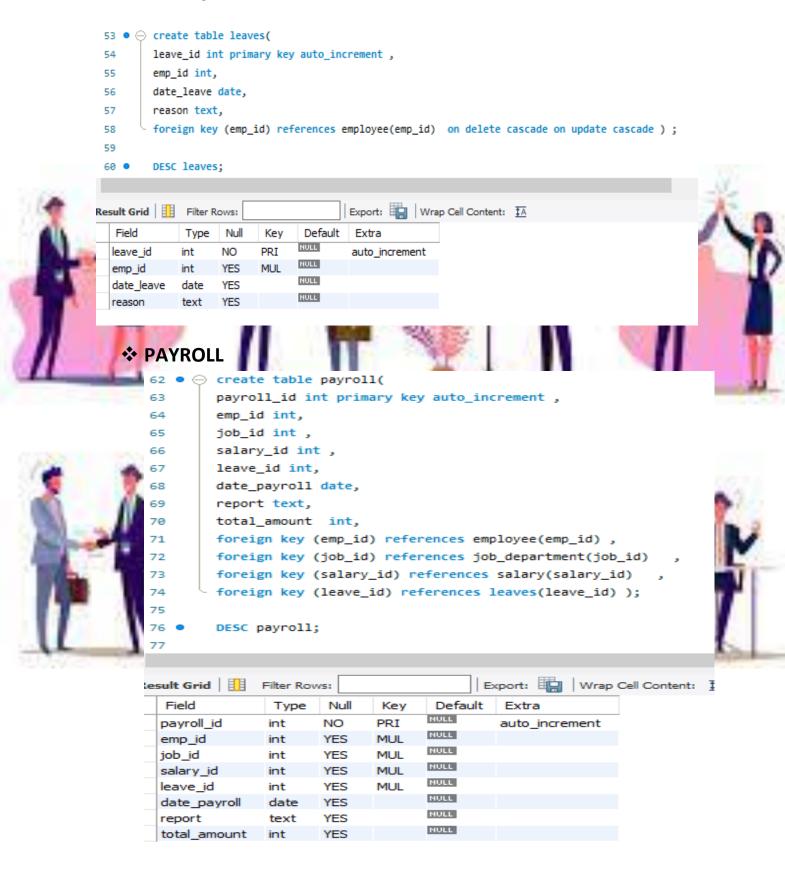








#### **❖ LEAVES**



#### **INSERT VALUES INTO TABLE:**

#### **❖** EMPLOYEE

```
insert into employee (fname,lname,gender,age,contact,emp_email,address,emp_pass)
values ('vivek','nayak','m',24 ,8324882348,'vivek@gmail.com','thane','ewt242'),
('john','smith','m',22 ,5632335325,'john@gmail.com','usa','retgew34'),
('jane','doe','m',27 ,9343534523,'jane@gmail.com','usa','sfgrfw43'),
('michael','john','m',29 ,9454523423,'michae@gmail.com','nyc','dsgfsf34'),
('emily','william','f',24 ,9324435345,'emily34@gmail.com','ca','gfdge32'),
('david','brown','m',28 ,967563454,'david3@gmail.com','nyc','erwr344'),
('michael','william','m',39 ,956344432,'michael@gmail.com','aus','dsgf342'),
('ajay','rao','m',28 ,89967553,'ajay4@gmail.com','mum','sef342'),
('archana','archarya','f',24 ,97563234,'archana@gmail.com','uk','dfr2123'),
('prashant','ranjan','m',34 ,809685746,'prashant4@gmail.com','goa','aefdqe21'),
('dilip','sharma','m',32 ,9677523423,'dilip3@gmail.com','delhi','erfwer11'),
('vineet','ashish','m',18 ,97674542,'ashish3@gmail.com','mum','q3e313'),
('indira','singh','f',19 ,978389767,'indira@gmail.com','haryana','tete13'),
('mahesh','singh','m',21 ,968634312,'mahesh3@gmail.com','punjab','tyh3453');
```



# **❖ JOB\_DEPARTMENT**



```
insert into job_department (job_dept,job_name,descriptions, salary_range)
values ('human resources','manager','finance','aroud 300000'),
    ('data analyst','analyst','analysis','aroud 234300'),
    ('banking','clerk','office work','aroud 500000'),
    ('data science','manager','anaysis','aroud 240000'),
    ('marketing','manager','sales','aroud 6600000'),
    ('banking','manager','audit','aroud 500000'),
    ('machine learning ','technical','analyst','aroud 6000000'),
    ('civil engineer','technical','construction','aroud 3000000'),
    ('customer service','technical','call center','aroud 2500000'),
    ('java developer','manager','developer','aroud 7000000'),
    ('business analyst','techical','analysis','aroud 4400000'),
    ('mechanical engineer','design ','designing','aroud 2000000'),
    ('civil engineer','production','quality control','aroud 7500000'),
    ('mechanical engineer','automation','machine','aroud 850000');
```

#### **❖ SALARY**

```
insert into salary (job_id,amount,annual_expense, bonus)
values (3,500000,2000000,200000),
(5,700000,3000000,400000),
(9,300000,100000,130000),
(14,900000,400000,340000),
(10,750000,3500000,300000),
(8,400000,2000000,150000),
(13,800000,5000000,450000),
(7,600000,400000,300000),
(4,300000,200000,140000),
(12,2000000,1500000,100000),
(1,300000,1500000,120000),
(6,550000,5000000,200000),
```



# **\*** QUALIFICATION

(2,250000,200000,10000), (11,450000,400000,30000);



```
insert into qualification (emp_id,positions,requirement, date_in)
values(8,'analyst','analysis','2020-04-13'),
(3,'clerk','ofc work','2019-07-30'),
(11,'design','design','2023-04-20'),
(14,'automation','auto machine','2021-05-17'),
(10,'developer','develop','2018-09-19'),
(5,'manager','sales','2018-04-1'),
(13,'technical','customer','2022-09-30'),
(7,'analyst','analysis','2022-05-25'),
(4,'manager','analysis','2022-02-13'),
(1,'manager','finance','2023-02-12'),
(6,'manager','banking','2021-08-13'),
(12,'production','quality control','2020-04-25'),
(9,'technical','construction','2022-12-27');
```

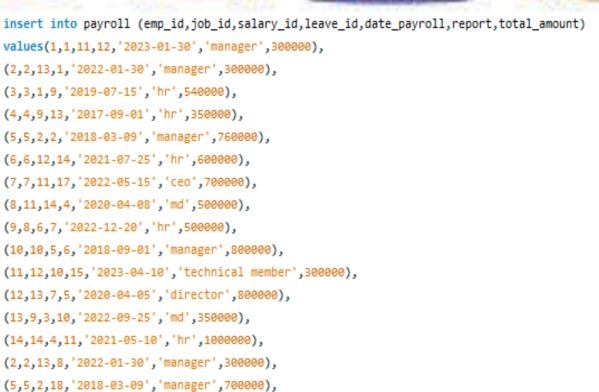


(7,7,11,3,'2022-05-15','ceo',700000), (13,9,3,16,'2022-09-25','md',350000);

#### **❖** EMPLOYEE MANAGEMENT SYSTEM

#### **❖ LEAVES**

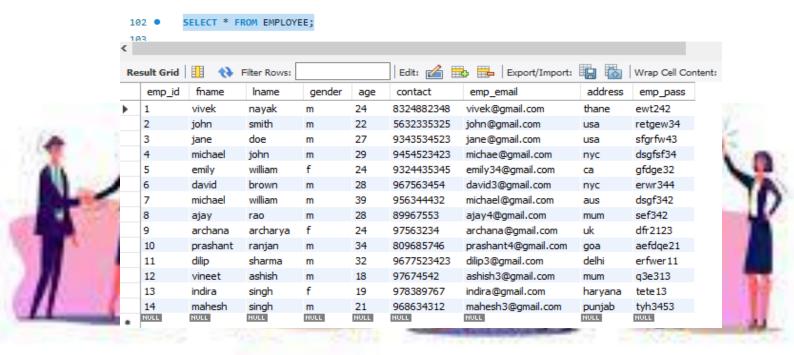
```
insert into leaves (emp_id,date_leave,reason)
values(2,'2022-07-21','fever'),
(5,'2022-07-21','personal'),
(7,'2022-07-16','emergency'),
(8,'2021-04-21','health issue'),
(12,'2020-04-21','body pain'),
(10,'2019-02-21','personal'),
(9,'2023-02-02','emergency'),
(2,'2023-01-12','family problem'),
(3,'2020-03-18','fever'),
(13,'2023-5-21','personal leave'),
(14,'2022-03-21','fever'),
(1,'2023-05-21','emergency '),
(4,'2018-05-21','personal'),
(6,'2023-01-21','fever'),
(11,'2023-05-20','not well'),
(13,'2023-08-21','emergency '),
(7,'2022-12-13','personal'),
(5,'2019-09-21','fever');
```



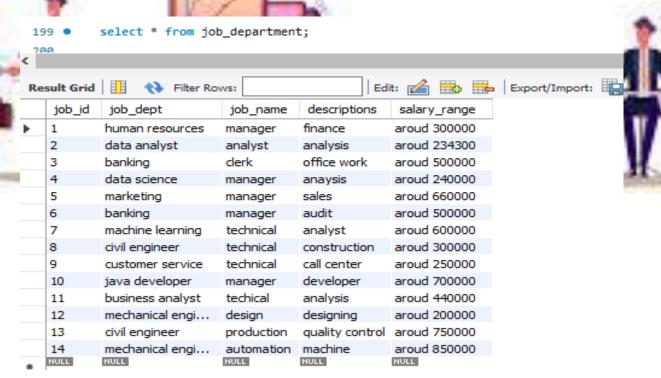


#### **CONTENTS OF TABLES:**

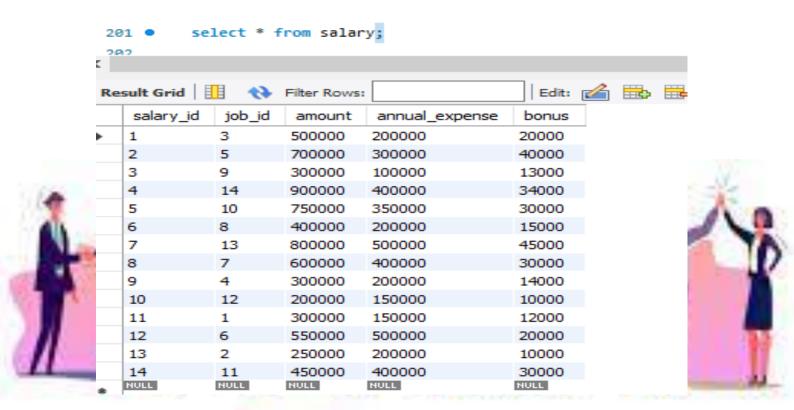
#### ❖ EMPLOYEE



# **❖** JOB DEPARTMENT



#### SALARY



# **\*** QUALIFICATION

14

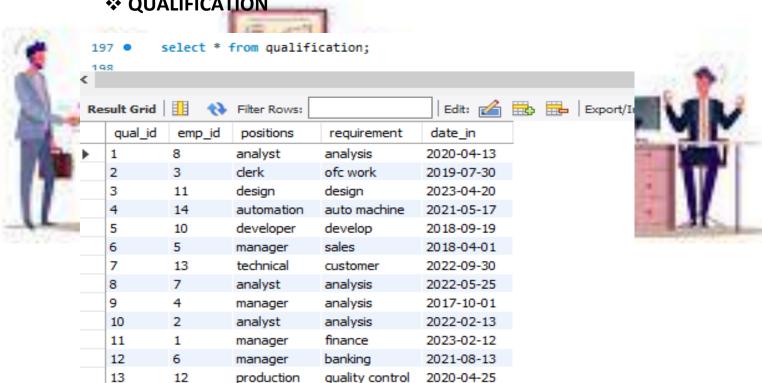
NULL

9

NULL

technical

NULL



construction

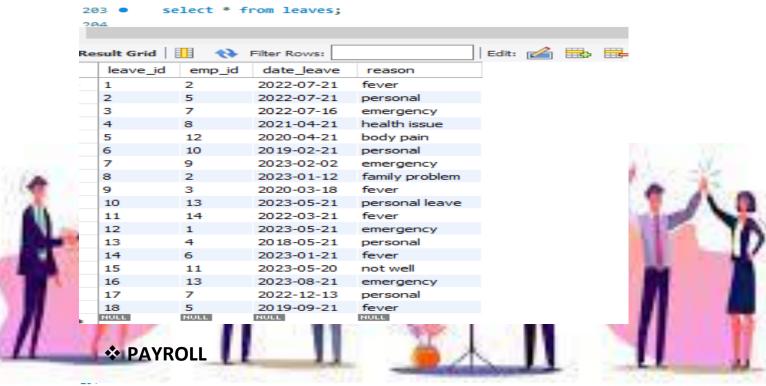
NULL

2022-12-27

NULL



#### LEAVES





206

16

17

18

NULL

5

7

13

NULL

5

7

9

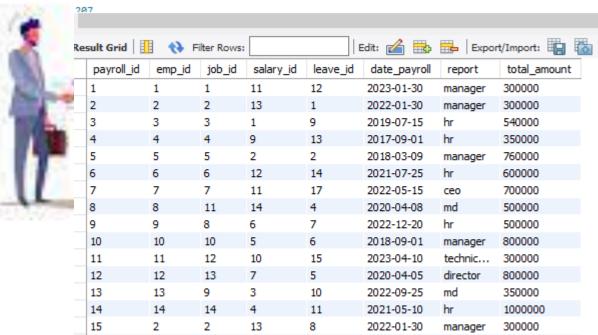
NULL

2

11

3

NULL



18

3

16

NULL

2018-03-09

2022-05-15

2022-09-25

NULL

700000

700000

350000

NULL

manager

ceo

md

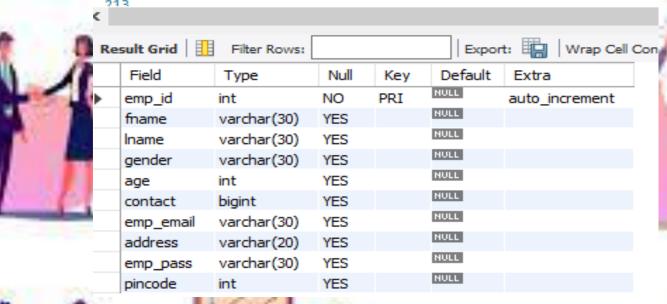
NULL



# **ALTER TABLE**

#### **❖** ADD COLUMN

209 • alter table employee
210 add column pincode int;
211
212 • DESC EMPLOYEE;



#### **\*** DROP COLUMN

217 • alter table employee 218 drop column pincode;

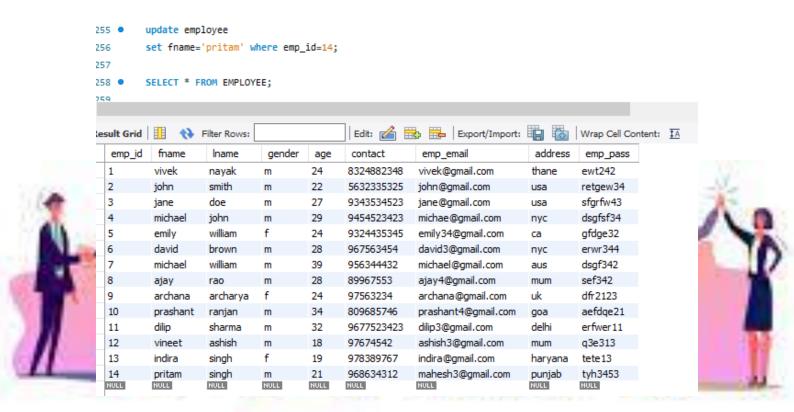
219

220 • DESC EMPLOYEE;

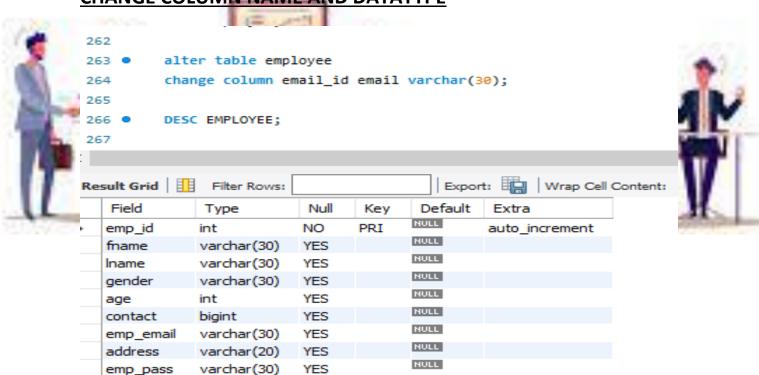
Export: Wrap Cell Cor Result Grid Filter Rows: Field Null Default Extra Type Key NULL emp\_id NO PRI int auto\_increment NULL fname varchar(30) YES NULL Iname varchar(30) YES NULL varchar(30) gender YES NULL int YES age NULL contact biaint YES NULL emp\_email varchar(30) YES NULL varchar(20) YES address NULL emp\_pass varchar(30) YES



#### **UPDATE COLUMN**

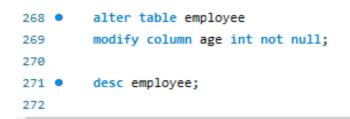


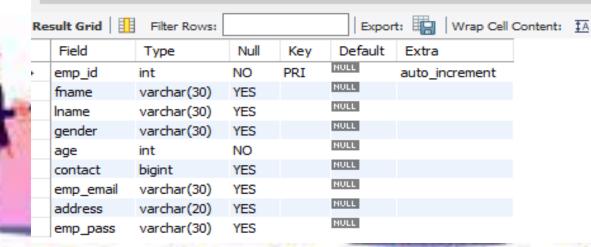
# **CHANGE COLUMN NAME AND DATATYPE**





#### MODIFY DATATYPE CONSTRAINT OF EXISTING COLUMN

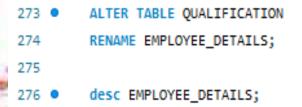






#### **RENAME TABLE**

277



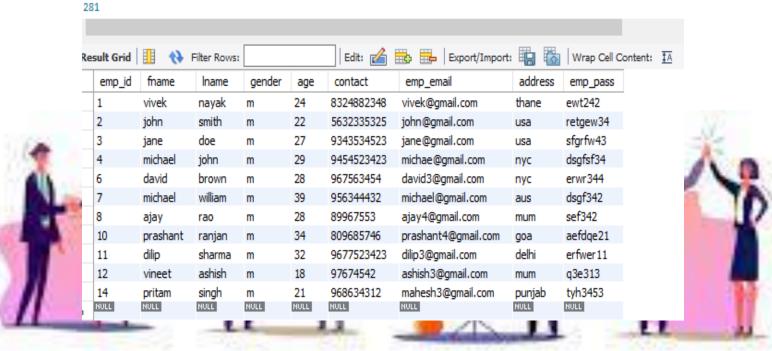
Result Grid Filter Rows: Export: Wrap Cell Content:

	Field	Туре	Null	Key	Default	Extra
•	qual_id	int	NO	PRI	NULL	auto_increment
	emp_id	int	YES	MUL	NULL	
	positions	varchar(30)	YES		NULL	
	requirement	varchar(30)	YES		NULL	
	date_in	date	YES		NULL	



#### WHERE CONDITION

280 • select \* from employee where gender = 'm';



282 • select \* from employee where AGE > 25;

283

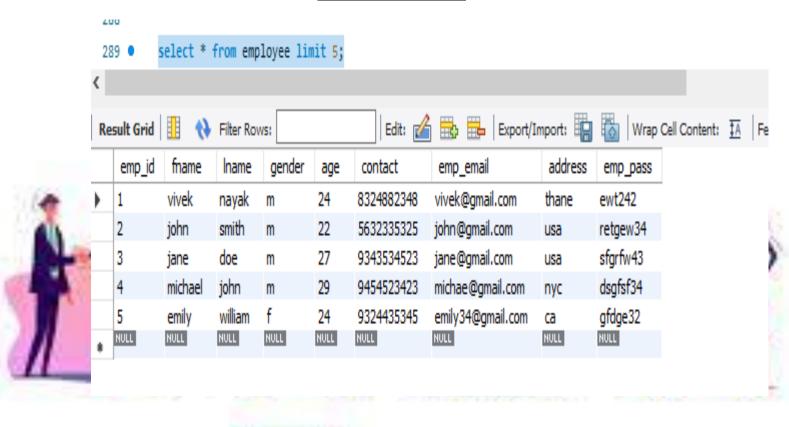
Edit: 🔏 🖶 🖶 | Export/Import: 📳 🍒 Wrap Cell Content: Result Grid Filter Rows: emp\_id gender fname Iname contact emp\_email address emp\_pass age 9343534523 jane@gmail.com sfgrfw43 3 doe 27 iane m usa 4 michael 29 9454523423 michae@gmail.com dsgfsf34 john m nyc 6 david3@gmail.com david brown 28 967563454 erwr344 m nyc michael william michael@gmail.com dsqf342 39 956344432 m aus 8 89967553 ajay4@gmail.com sef342 ajay 28 rao m mum aefdge21 10 prashant 34 809685746 prashant4@gmail.com ranjan m goa dilip 32 dilip3@gmail.com delhi erfwer11 11 sharma m 9677523423 NULL NULL NULL NULL NULL NULL NULL NULL NULL



#### **BETWEEN OPERATOR**



#### **LIMIT FUNCTION**



290
291 • select \* from employee limit 5,4;

292

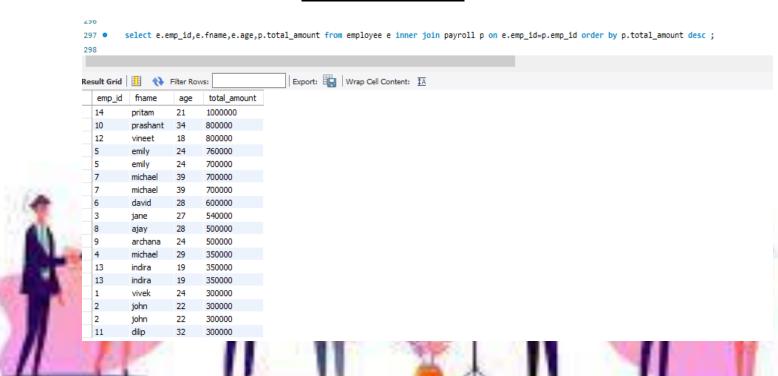
Edit: 🔏 🖶 🖶 | Export/Import: 🗓 Result Grid Wrap Cell Content: \$\overline{A}\$ Filter Rows: emp\_id address fname Iname gender contact emp\_email age emp\_pass 28 david3@gmail.com david 967563454 erwr344 6 brown m nyc michael@gmail.com michael dsqf342 7 william 39 956344432 m aus ajay4@gmail.com sef342 8 28 89967553 ajay rao m mum archarya archana@gmail.com uk dfr2123 9 archana 24 97563234 NULL NULL NULL NULL NULL NULL NULL NULL NULL

#### **LIKE OPERATOR**



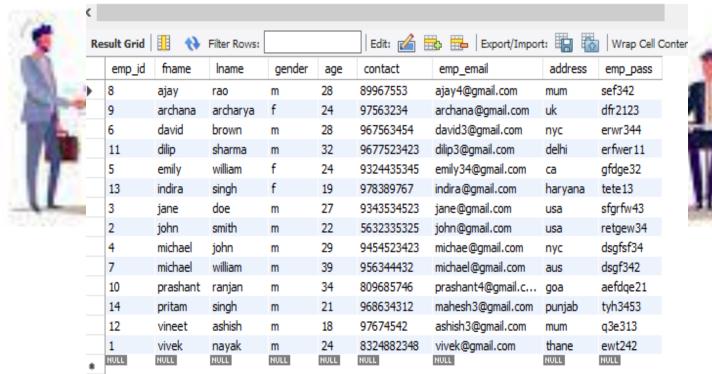


#### **ORDER BY CLAUSE**



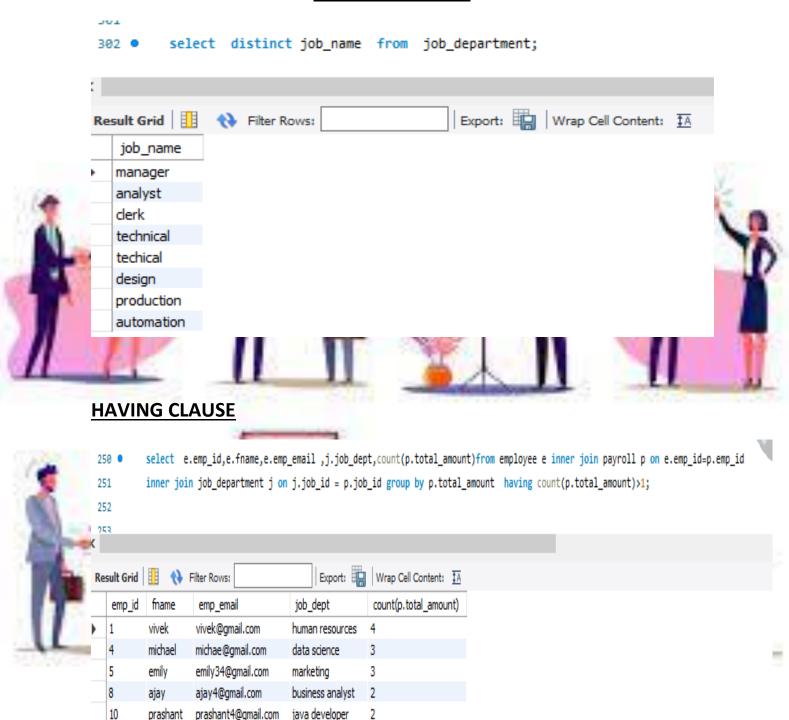
299 • SELECT \* FROM EMPLOYEE ORDER BY FNAME ASC;

300



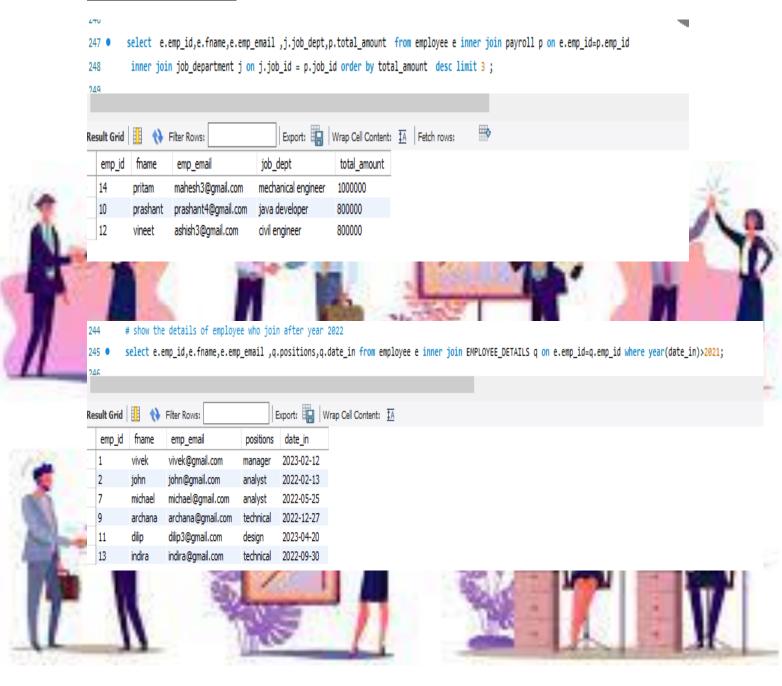


#### **DISTINCT SYNTAX**





# **JOIN WITH LIMIT**





#### JOIN:

5

13

7

4

2

1

6

12

9

emily

indira

michael

michael

john

vivek

david

vineet

emily34@gmail.com

indira@gmail.com

michael@gmail.com

michae@gmail.com

john@gmail.com

vivek@gmail.com

david3@gmail.com

ashish3@gmail.com

archana @gmail.com

manager

technical

analyst

manager

analyst

manager

manager

production

technical

2018-04-01

2022-09-30

2022-05-25

2017-10-01

2022-02-13

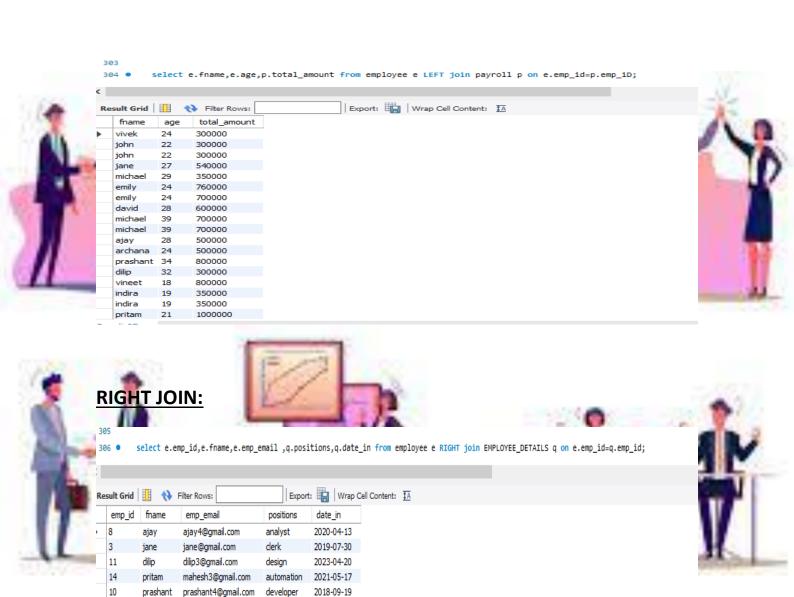
2023-02-12

2021-08-13

2020-04-25

2022-12-27

#### **LEFT JOIN:**





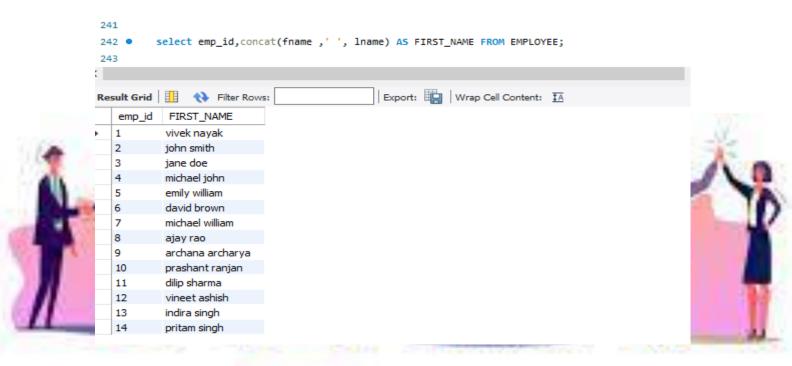
# **NON-EQUI JOIN:**

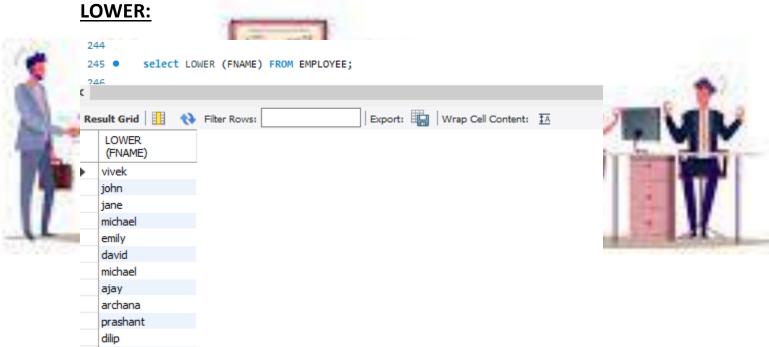
306 • select e.emp\_id,e.fname,e.emp\_email ,q.positions,q.date\_in from employee e INNER join EMPLOYEE\_DETAILS q on e.emp\_id!=q.emp\_id;

Result G	rid 🔢 🙌	Filter Rows:	E	oport: 📳   Wrap	Cell Content: TA		
emp	_id fname	emp_email	positions	date_in			
14	pritam	mahesh3@gmail.com	analyst	2020-04-13			
13	indira	indira@gmail.com	analyst	2020-04-13			
12	vineet	ashish3@gmail.com	analyst	2020-04-13			
11	dilip	dilip3@gmail.com	analyst	2020-04-13			
10 9	prashant archana	prashant4@gmail.com archana@gmail.com	analyst analyst	2020-04-13 2020-04-13			
7	michael	michael@gmail.com	analyst	2020-04-13			
6	david	david3@gmail.com	analyst	2020-04-13			
5	emily	emily34@gmail.com	analyst	2020-04-13			
4	michael	michae@gmail.com	analyst	2020-04-13			
3	jane	jane@gmail.com	analyst	2020-04-13			
2	john	john@gmail.com	analyst	2020-04-13			
1	vivek pritam	vivek@gmail.com mahesh3@gmail.com	analyst derk	2020-04-13 2019-07-30			
13	indira	indira@gmail.com	derk	2019-07-30			
12	vineet	ashish3@gmail.com	derk	2019-07-30			
11	dilip	dilip3@gmail.com	derk	2019-07-30			
10	prashant	prashant4@gmail.com	derk	2019-07-30			
9	archana	archana@gmail.com	derk	2019-07-30			
8	ajay	ajay4@gmail.com	derk	2019-07-30		-	
	_	-	-	100		/ \	
	6	david			gmail.com	derk	2019-07-30
	5	emily			gmail.com	derk	2019-07-30
	4	michael	- 1	michae@	gmail.com	clerk	2019-07-30
	2	john	j	john@gm	nail.com	clerk	2019-07-30
	1	vivek	,	vivek@gr	mail.com	clerk	2019-07-30
	14	pritam	1	mahesh3	@gmail.com	design	2023-04-20
	13	indira	i	ndira@gı	mail.com	design	2023-04-20
	12	vineet	ě	ashish3@	gmail.com	design	2023-04-20
	10	prashant		prashant4@gmail.com		design	2023-04-20
	9	archana	a a	archana (	⊕gmail.com	design	2023-04-20
	8	ajay	ě	ajay4@g	mail.com	design	2023-04-20
	7	michael		michael@	gmail.com	design	2023-04-20
	6	david		david3@g	gmail.com	design	2023-04-20
	5	emily		emily34@	gmail.com	design	2023-04-20
	4	michael	1	michae@	gmail.com	design	2023-04-20
	3	jane	j	jane@gm	nail.com	design	2023-04-20
	2	john	j	john@gm	nail.com	design	2023-04-20
	1	vivek	1	vivek@gr	mail.com	design	2023-04-20
	13	indira	i	ndira@gi	mail.com	automa	2021-05-17
	12			ashish3@			

# **CONCAT:**

vineet indira pritam

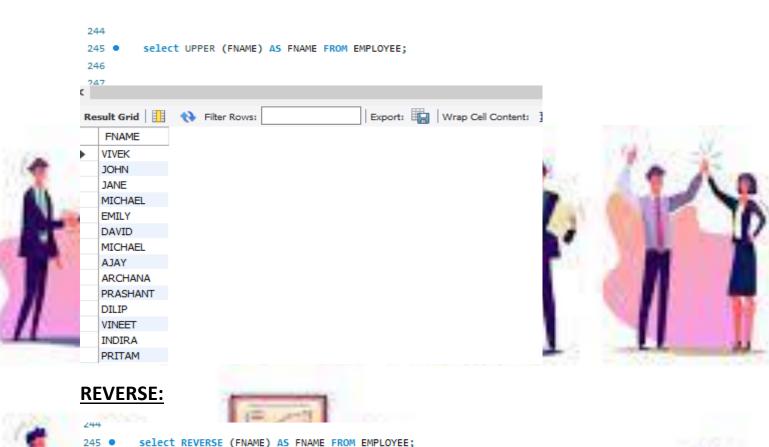






### **UPPER:**

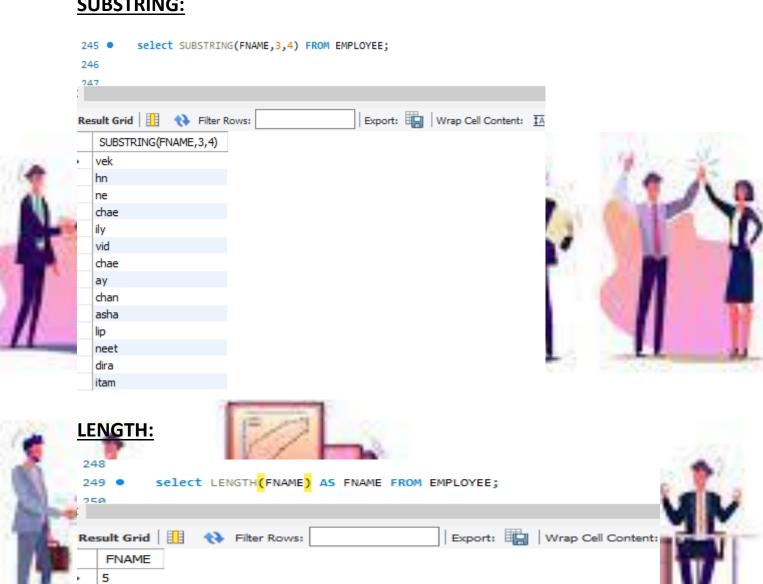
teeniv aridni matirp







# **SUBSTRING:**



MAX

39

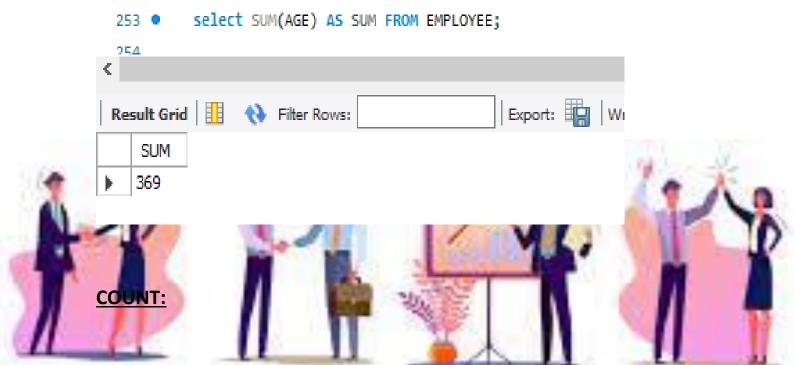
# **❖** EMPLOYEE MANAGEMENT SYSTEM

# **AGGREGATE FUNCTION**



# SUM:

**Z3Z** 



253 • select COUNT(AGE) AS SUM FROM EMPLOYEE;

