



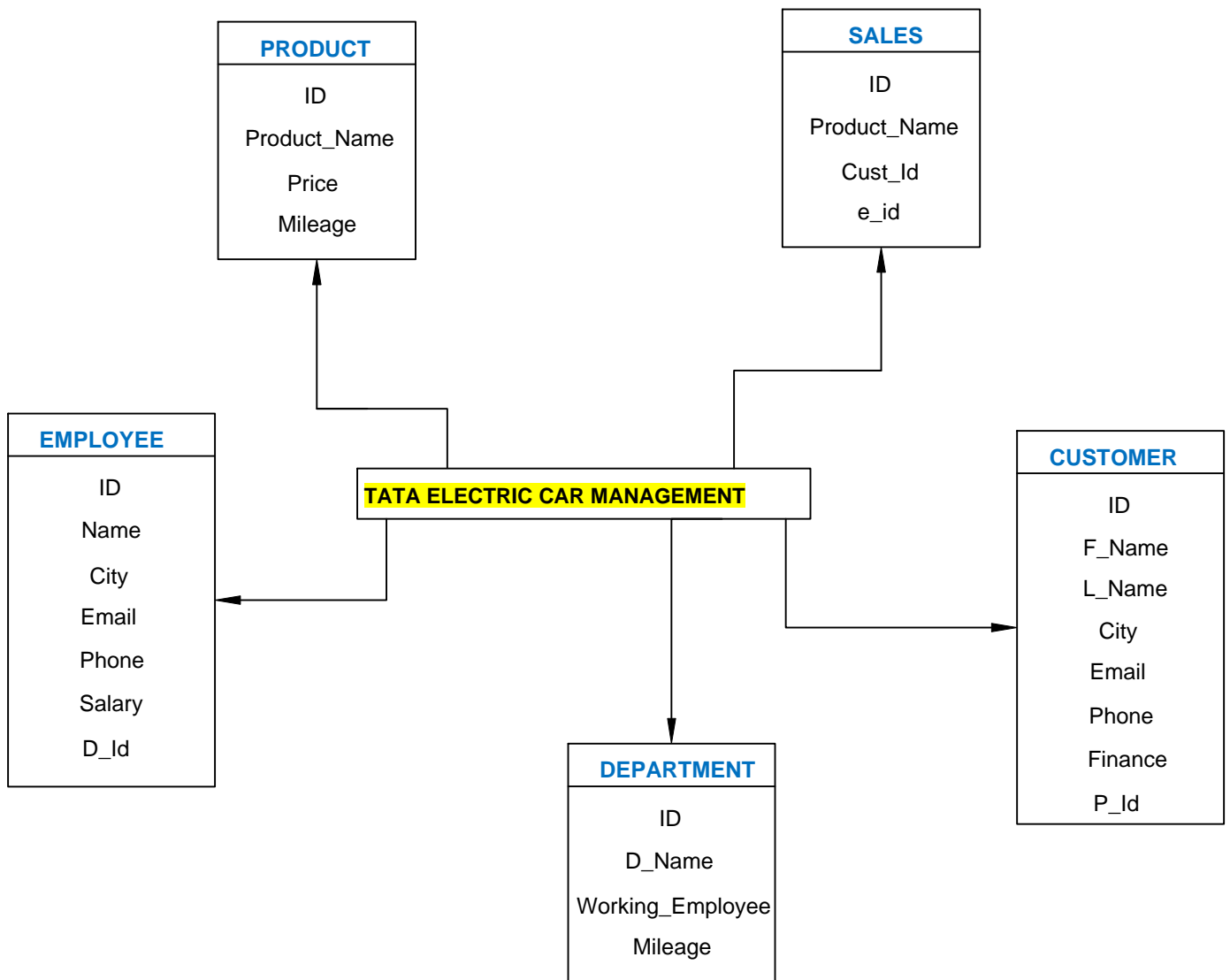
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# TATA ELECTRIC CAR MANAGEMENT SYSTEM

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## ER-DIAGRAM OF TATA ELECTRIC CAR MANAGEMENT SYSTEM



## **ABSTRACT**

Electric vehicles (EV), as a promising way to reduce the greenhouse effect, have been researched extensively. With improvements in the areas of power electronics, energy storage and support, the plug-in hybrid electric vehicle (PHEV) provides competitive driving range and fuel economy compared to the internal combustion engine vehicle (ICEV).

Operating with optimised control strategies or utilising the concept of the energy management system (EMS), the efficiency of the PHEV could be significantly improved. In this review paper, the operating process of the various types of EVs will be explained. Battery technology and supercapacitor technology will also be discussed as a possibility to increase the energy capacity of PHEV.

## **INTRODUCTION**

Electric carIntroduction:Both commercially and in terms of research and development, automobiles are one of the world'smost important industries. Automakers are progressively adopting cutting-edge safety technologies to better safeguard passengers and pedestrians. Now that there are more vehicles onthe road, we can travel faster and more pleasantly. As a result of this surge, urban air pollution has significantly increased (i.e., pollutants such as PM, NOX, CO, SO2, etc.). Data from the European Union shows that road transportation accounts for more than 70 percent of industry emissions. Most developed countries' governments are promoting the use of electric vehicles (EVs) as a means of reducing air pollution, carbon dioxide (CO2), and other greenhouse gas emissions. The promotion of environmentally friendly and energy-efficient transportation may take the form of tax incentives, financial assistance with purchases, or other unique initiatives such as the provision of free public parking or roads (Gelmanova et al 2018).

## Products

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### **Tigor EV :-**

In October 2019, Tata Motors has launched the Tigor EV for taxi owners. It has an extended the range from 142 km to 213 km on a single charge according to ARAI certification. It is reported that the Tigor EV will be the cheapest electric car available for commercial buyers. In 2021 the Tata Tigor EV was renamed as XPRES-T.<sup>[10][11]</sup> On 31st August 2021, Tata Motors has launched the new Tigor EV in India with 4 variants XE, XM, XZ+ and XZ+ (O), with ARAI claimed range of 306 km in a single charge, which adopts the brand's ZipTron powertrain shared with the Nexon EV.<sup>[12]</sup> On 23 November 2022, Tata Motors has launched the new Tigor.ev with an extended ARAI claim range of 315 km. This updated version gets some new tech and features to the car



### **Nexon EV:-**

In May 2022, Tata launched the long range version of the Nexon EV's the Nexon EV Max. The electric motor produces 106.64 kW (143 hp; 145 PS) and 250 N·m (184 lbf·ft) of torque and 0–100 under 9 seconds. It has a 40.5 kWh battery with an ARAI rated range of up to 437 km (272 mi).



## Tata Tiago EV:-

The Tata Tiago.ev was launched in 2022. The LR version has a range of 315 km with battery capacity of 24 kWh while the MR version has a certified range of 250 km with a battery capacity of 19.2 kWh. The battery can be charged in 3.6 hours with a normal charger and in 57 min with fast charger. It can go from 0-60 km/h in just 5.7 seconds. It can generate torque up to 114 Nm and power up to 73.75 Bhp



# STRUCTURE OF TABLES

## PRODUCT:

This table contains the details of all the student. Id, Product Name, Price, Mileage etc.

```
mysql> desc product;
```

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	
product_name	varchar(30)	YES		NULL	
price	varchar(30)	YES		NULL	
mileage	varchar(30)	YES		NULL	

```
4 rows in set (0.01 sec)
```



## DEPARTMENT:

This table contains the details of all the Department such as their ID, D\_Name and Working\_employee

```
mysql> desc department;
```

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	
d_name	varchar(30)	YES		NULL	
working_employee	varchar(30)	YES		NULL	

```
3 rows in set (0.00 sec)
```

## EMPLOYEE:

This table contains the details of all the Employee. Id, name, city, email, phone, salary and d\_id

```
mysql> desc employee;
```

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	
name	varchar(30)	YES		NULL	
city	varchar(30)	YES		NULL	
email	varchar(30)	YES		NULL	
phone	varchar(30)	YES		NULL	
salary	int	YES		NULL	
d_id	int	YES	MUL	NULL	

```
7 rows in set (0.00 sec)
```

## CUSTOMER:

This table contains the details of all the Employee. Id, name, city, email, phone, salary and d\_id

```
mysql> desc customer;
```

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	
f_name	varchar(30)	YES		NULL	
l_name	varchar(30)	YES		NULL	
city	varchar(30)	YES		NULL	
email	varchar(30)	YES	UNI	NULL	
phone	varchar(20)	YES		NULL	
finance	varchar(30)	YES		NULL	
p_id	int	YES	MUL	NULL	

```
8 rows in set (0.00 sec)
```

## SALES:

This table contains the details of all the Employee. Id, name, city, email, phone, salary and d\_id

```
mysql> desc sales;
```

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	
Product_name	varchar(30)	YES	MUL	NULL	
cust_id	int	YES	MUL	NULL	
e_id	int	YES	MUL	NULL	

```
4 rows in set (0.00 sec)
```

## CONTENTS OF TABLES

### PRODUCT:

```
mysql> select * from product;
```

id	product_name	price	mileage
1	tata_tigor	6.10l	142km
2	tata_nexon_ev	17.19l	312km
3	tata_tiago	8.53l	315km

```
3 rows in set (0.00 sec)
```

## DEPARTMENT:

```
mysql> select * from department;
```

id	d_name	working_employee
1	marketing	10
2	opration	12
3	finance	7
4	HR	4
5	purchases	5
6	sales	10

```
6 rows in set (0.00 sec)
```

## EMPLOYEE:

```
mysql> select * from employee;
```

id	name	city	email	phone	salary	d_id
1	ajit_kumar	kolhapur	ajit@123	8564741221	25000	1
2	rajiv_sharma	mumbai	rs@1232	8564009293	28000	3
3	mohan_ravat	mumbai	mr@007	8007937274	30000	5
4	alok_mitra	mumbai	alkm@007	8830358543	30000	5
5	pramita_pal	sangli	pr007@gmail.com	8830354243	26700	4
6	pintu_ram	panvel	pntr@gmail.com	8454890092	35000	6
7	swarup_bose	uttar_pradesh	srbb@gmail.com	8454891256	35000	4
8	rohit_yadav	aitawade_kh	rby@gmail.com	9158355423	45000	4
9	vyenakatesh_patil	bhedasgav	vp@gmail.com	9152638911	45850	4
10	manoj_lakra	bhedasgav	mjl@gmail.com	914572169	289000	2
11	deepak_sharma	thane	nmk556@gmail.com	885676169	289000	2
12	rahul_patil	sangli	rp476@gmail.com	8605860865	19000	5
13	ajay_patil	pune	ap211@gmail.com	9011427002	22000	5
14	goutam_ghosh	pune	gg583@gmail.com	9045123536	22500	3
15	pranita_gaikwad	mankhurd	pgl2@gmail.com	7383401045	30000	6
16	rutuja_chavan	mankhurd	rc912@gmail.com	7383895214	30000	6
17	ratnaprabha_aadhav	malvan	rba@gmail.com	8830364546	30000	6
18	akshay_mane	islampur	akm@gmail.com	9158302628	35000	1
19	pradeep_ram	kalva	bks@gmail.com	8008727476	35900	1
20	nand_gond	thane	kk@gmail.com	9930353832	35900	1
21	somnath_sarkar	thane	gh56@gmail.com	9930424850	38500	1
22	pradeep_sharma	borivali	jk6@gmail.com	7990000545	29000	2
23	avjit_shaha	malad	tr69@gmail.com	9218171652	29900	2
24	aditya_dhara	malad	er59@gmail.com	9225788896	23000	2
25	ranjit_roy	vashi	ranjit59@gmail.com	9254261232	25000	6
26	asish_ram	vashi	ar59@gmail.com	9254551232	30000	6
27	monika_bhattacharya	nerul	monu59@gmail.com	8825551232	32000	3
28	nirupama_haldar	sanpada	niru59@gmail.com	8868411232	35000	3
29	gautam_das	mansarovar	gautam21@gmail.com	8181411232	25000	2
30	raghunath_bhaskar	juinagar	bhaskar44@gmail.com	8888881232	40000	1
31	sameer_shukla	ulhas_nagar	mba@gmail.com	8856231456	41250	1
32	rohit_aanand	goregav	ba45@gmail.com	9922171516	41000	2
33	prasad_rane	wadala	bkc45@gmail.com	8456167474	38000	3
34	vikas_valive	kolhapur	vm545@gmail.com	9168113003	38500	2
35	ankita_shete	kolhapur	kl545@gmail.com	8845454342	38500	3
36	rohan_kadam	goregav	rk25@gmail.com	9922171551	40000	2
37	rohit_lohar	borivali	rohit25@gmail.com	8710171551	35000	1
38	rohan_ghatage	kandivali	rg25@gmail.com	8710170025	37000	1
39	atish_patil	pune	atish25@gmail.com	7500170025	42000	1
40	sayali_dinde	kolhapur	sayli03@gmail.com	7500452025	41000	6
41	ankita_shirke	kolhapur	ankita03@gmail.com	8768452025	40000	6
42	rutuja_patil	vashi	rutu28@gmail.com	8768685400	45000	3
43	avantika_patil	airoli	avp02@gmail.com	8768456202	45000	6
44	nisha_patil	airoli	nisha04@gmail.com	7404456202	40000	6
45	ankita_bomble	ghatkopar	anku24@gmail.com	8745961235	35000	5
46	rajaram_shewale	kolhapur	rajaram24@gmail.com	8745962525	30000	2
47	gajanan_lohar	kolhapur	gajanan02@gmail.com	8888962525	34000	2
48	vishal_tambe	panvel	vishu24@gmail.com	7785461234	35000	2

```
48 rows in set (0.00 sec)
```

## CUSTOMER:

```
mysql> select * from customer;
```

id	f_name	l_name	city	email	phone	finance	p_id
1	rohit	yadav	sangli	ry95@gmail.com	8007937274	no	1
2	ajay	patil	islampur	bkc58@gmail.com	8007935652	no	2
3	akshay	mane	kplhapur	ak468@gmail.com	8830352543	yes	3
4	mohan	shukla	thane	bd12@gmail.com	9158355423	yes	2
5	kunal	sharma	mumbai	kr5@gmail.com	9158565245	no	1
6	karan	sharma	mumbai	hjj5@gmail.com	8605924562	no	3
7	raahul	patil	sangli	rp56@gmail.com	9657900506	no	2
8	vikram	sing	borivali	ajp@gmail.com	9011427002	yes	1
9	swpnil	chavan	aitawade	swp@gmail.com	9158302692	yes	3
10	suraj	khan	andheri	kl@gmail.com	9156231478	no	1
11	pranita	rane	mankhurd	pg@gmail.com	7387404145	no	1
12	rutuja	gaikwad	kolhapur	rk@gmail.com	8747355851	yes	3
13	rushi	lohar	satara	uo@gmail.com	8956421523	yes	2
14	aaradhna	sathe	diva	as@gmail.com	9922181232	yes	1
15	priti	sharma	malad	akp@gmail.com	9922171819	no	2
16	bhakti	kamble	goregav	su58@gmail.com	8545226389	no	3
17	nikita	jadhav	bandra	priya58@gmail.com	7875103610	yes	2
18	rehana	mulla	mahim	lg98@gmail.com	8454830092	yes	1
19	sid	malhotra	matunga	klm23@gmail.com	8455008992	no	1
20	akshay	kumar	dadar	mla89@gmail.com	9292453003	yes	2
21	rohit	pawar	parel	kpo2@gmail.com	8082835658	no	1
22	vaibhav	patil	charkop	gk5@gmail.com	8956231478	yes	3
23	khushal	chavan	kalyan	ert4@gmail.com	8745129623	no	1
24	swpnil	joshi	mumbra	8vb@gmail.com	8574562314	no	2
25	sushant	yadav	ghatkopar	sy90@gmail.com	8605860865	yes	1
26	parth	patil	pune	parth99@gmail.com	9905860865	yes	2
27	atul	naik	kolhapur	atul97@gmail.com	9905860245	no	3
28	anish	bhaldar	pune	anish97@gmail.com	9587860245	no	3
29	pramod	shikhare	kolhpur	pramod07@gmail.com	9587864545	yes	2
30	shredhar	naik	wakad	naik85@gmail.com	9999864545	yes	3
31	ankita	shirke	pune	shirke20@gmail.com	8475124545	no	1
32	sayali	dinde	kolhapur	sayali03@gmail.com	8546712644	no	2
33	prajwal	jadhav	vashi	jadhav97@gmail.com	8854712644	yes	1
34	sandip	patil	pune	sandip45@gmail.com	8854712546	yes	3
35	prashant	chougule	panvel	prashant94@gmail.com	9565712546	no	3
36	pramod	chougule	kharghar	pramod92@gmail.com	8546712546	no	2
37	rohan	kadam	airoli	rohan99@gmail.com	9457712546	yes	1
38	rohit	lohar	thane	rohit98@gmail.com	9457712020	yes	3
39	rohan	ghatage	ghansoli	rohan2002@gmail.com	8564712020	yes	3
40	atish	patil	nerul	atish97@gmail.com	8864712020	no	1
41	vishal	tambe	panvel	vishu97@gmail.com	8864717576	no	1
42	pradip	katake	ghatkopar	pradip25@gmail.com	8585746123	yes	2
43	suraj	tambe	ghatkopar	suraj21@gmail.com	8574632147	yes	2
44	ruturaj	patil	pune	rutu@gmail.com	7564632147	yes	3
45	shreedhar	patil	pune	shree@gmail.com	8574632147	no	3
46	shubham	patil	mankhurd	sp2002@gmail.com	9854632147	no	2
47	abhiijeet	shelake	kolhapur	abhi97@gmail.com	9854632525	yes	1
48	shubhash	mohite	pune	mohite23@gmail.com	8854632525	yes	2
49	santosh	patl	pune	santya99@gmail.com	8585632525	yes	3
50	vyankatesh	patl	airoli	vyanky97@gmail.com	9960685194	yes	3



## SALES:

```
mysql> select * from sales;
```

id	product_name	cust_id	e_id
1	tata_trigger_ev	1	6
2	tata_nexon_ev	2	15
3	tata_tiago	3	16
4	tata_nexon_ev	4	17
5	tata_trigger_ev	5	25
6	tata_tiago	6	26
7	tata_nexon_ev	7	40
8	tata_trigger_ev	8	41
9	tata_tiago	9	43
10	tata_trigger_ev	10	44
11	tata_trigger	11	44
12	tata_tiago	12	43
13	tata_nexon_ev	13	41
14	tata_trigger_ev	14	40
15	tata_nexon_ev	15	26
16	tata_tiago	16	25
17	tata_nexon_ev	17	17
18	tata_trigger_ev	18	16
19	tata_trigger_ev	19	15
20	tata_nexon_ev	20	6
21	tata_trigger_ev	21	25
22	tata_tiago	22	44
23	tata_trigger_ev	23	17
24	tata_nexon_ev	24	6
25	tata_trigger_ev	25	15
26	tata_nexon_ev	26	15
27	tata_tiago	27	44
28	tata_tiago	28	40
29	tata_nexon_ev	29	41
30	tata_tiago	30	6
31	tata_trigger_ev	31	43
32	tata_nexon_ev	32	44
33	tata_trigger_ev	33	16
34	tata_tiago	34	15
35	tata_tiago	35	17
36	tata_nexon_ev	36	25
37	tata_trigger_ev	37	26
38	tata_tiago	38	40
39	tata_tiago	39	41
40	tata_trigger	40	6
41	tata_trigger_ev	41	43
42	tata_nexon_ev	42	43
43	tata_nexon_ev	43	44
44	tata_tiago	44	43
45	tata_tiago	45	41
46	tata_nexon_ev	46	15
47	tata_trigger_ev	47	6
48	tata_nexon_ev	48	16
49	tata_tiago	49	43
50	tata_tiago	50	44

# SUBQUERIES

## 1.show the all details of employee where max salary in all employee.

mysql> select id,name from employee where salary=(select max(salary) from employee where salary=(select max(salary) from employee));

```
mysql> select id,name from employee where salary=(select max(salary) from employee where salary=(select max(salary) from employee));
+----+-----+
| id | name       |
+----+-----+
| 9  | vyankatesh_patil |
+----+-----+
1 row in set (0.00 sec)
```

## 1.show the all details of employee where second max salary in all employee.

mysql> select id,name from employee where salary=(select max(salary) from employee where salary=(select max(salary) from employee where salary<(select max(salary) from employee)));

```
mysql> select id,name from employee where salary=(select max(salary) from employee where salary=(select max(salary) from employee where salary<(select max(salary) from employee)));
+----+-----+
| id | name       |
+----+-----+
| 8  | rohit_yadav |
| 42 | rutuja_patil |
| 43 | avantika_patil |
+----+-----+
3 rows in set (0.00 sec)
```

## 1.show the all details of customer they buying the tata tigor ev scooter.

```
mysql> select id,f_name,l_name from customer where  
p_id=(select id from product where  
product_name="tata_tigor_ev");
```

```
mysql> select id,f_name,l_name from customer where p_id=(select id from product where product_name="ola_s1");  
+----+-----+-----+  
| id | f_name | l_name |  
+----+-----+-----+  
| 1  | rohit  | yadav  |  
| 5  | kunal  | sharma |  
| 8  | vikram | sing    |  
| 10 | suraj  | khan    |  
| 11 | pranita | rane    |  
| 14 | aaradhna | sathe  |  
| 18 | rehana  | mulla   |  
| 19 | sid     | malhotra |  
| 21 | rohit   | pawar   |  
| 23 | khushal | chavan  |  
| 25 | sushant | yadav   |  
| 31 | ankita  | shirke  |  
| 33 | prajwal | jadhav  |  
| 37 | rohan   | kadam   |  
| 40 | atish   | patil   |  
| 41 | vishal  | tambe   |  
| 47 | abhijeet | shelake |  
+----+-----+-----+  
17 rows in set (0.01 sec)
```

#### 4.show the all details of sales employee name is pranita gaikwad how many sales the product.

mysql> select id,product\_name from sales where e\_id=(select id from employee where name="pranita\_gaikwad");

```
mysql> select id,product_name from sales where e_id=(select id from employee where name="pranita_gaikwad");
+----+-----+
| id | product_name |
+----+-----+
| 2  | tata_nexon_ev |
| 19 | tata_trigger_ev |
| 25 | tata_trigger_ev |
| 26 | tata_nexon_ev |
| 34 | tata_tiago    |
| 46 | tata_nexon_ev |
+----+-----+
6 rows in set (0.03 sec)
```

#### 5. show the all details of employee, how many employee working in marketing department.

mysql> select id,name from employee where d\_id=(select id from department where d\_name="marketing");

```
mysql> select id,name from employee where d_id=(select id from department where d_name="marketing");
+----+-----+
| id | name      |
+----+-----+
| 1  | ajit_kumar |
| 18 | akshay_mane |
| 19 | pradeep_ram |
| 20 | nand_gond  |
| 21 | somnath_sarkar |
| 30 | raghunath_bhaskar |
| 31 | sameer_shukla |
| 37 | rohit_lohar |
| 38 | rohan_ghatage |
| 39 | atish_patil |
+----+-----+
10 rows in set (0.00 sec)
```

# JOINS

1.Perform inner join department and employee but show only d\_name, name, salary.

```
mysql> select d_name,name,salary from department inner join employee on department.id=d_id;
```

```
mysql> select d_name,name,salary from department inner join employee on department.id=d_id;
```

d_name	name	salary
marketing	ajit_kumar	25000
marketing	akshay_mane	35000
marketing	pradeep_ram	35900
marketing	nand_gond	35900
marketing	somnath_sarkar	38500
marketing	raghunath_bhaskar	40000
marketing	sameer_shukla	41250
marketing	rohit_lohar	35000
marketing	rohan_ghatage	37000
marketing	atish_patil	42000
operation	manoj_lakra	40000
operation	deepak_sharma	40000
operation	pradeep_sharma	29000
operation	avjit_shaha	29900
operation	aditya_dhara	23000
operation	gautam_das	25000
operation	rohit_aanand	41000
operation	vikas_valive	38500
operation	rohan_kadam	40000
operation	rajaram_shewale	30000
operation	gajanan_lohar	34000
operation	vishal_tambe	35000
finance	rajiv_sharma	28000
finance	goutam_ghosh	22500
finance	monika_bhattacharya	32000
finance	nirupama_haldar	35000
finance	prasad_rane	38000
finance	ankita_shete	38500
finance	rutuja_patil	45000
HR	pramita_pal	26700
HR	swarup_bose	35000
HR	rohit_yadav	45000
HR	vyankatesh_patil	45850
purchases	mohan_ravat	30000
purchases	alok_mitra	30000
purchases	rahul_patil	19000
purchases	ajay_patil	22000
purchases	ankita_bomble	35000
sales	pintu_ram	35000
sales	pranita_gaikwad	30000
sales	rutuja_chavan	30000
sales	ratnaprabha_aadhav	30000
sales	ranjit_roy	25000
sales	asish_ram	30000
sales	sayali_dinde	41000
sales	ankita_shirke	40000
sales	avantika_patil	45000
sales	nisha_patil	40000

48 rows in set (0.00 sec)

## 1.Perform right join product and customer but show only product\_name, price, mileage, f\_name, l\_name, city, email.

mysql>select product\_name, price, mileage, f\_name, l\_name, city, email from product right join customer on product.id=p\_id;

```
mysql> select product_name, price, mileage, f_name, l_name, city, email from product right join customer on product.id=p_id;
```

product_name	price	mileage	f_name	l_name	city	email
tata_tigor	6.10l	142km	rohit	yadav	sangli	ry95@gmail.com
tata_nexon_ev	17.19l	312km	ajay	patil	islampur	bkc58@gmail.com
tata_tiago	8.53l	315km	akshay	mane	kplhapur	ak468@gmail.com
tata_nexon_ev	17.19l	312km	mohan	shukla	thane	bd12@gmail.com
tata_tigor	6.10l	142km	kunal	sharma	mumbai	kr5@gmail.com
tata_tiago	8.53l	315km	karan	sharma	mumbai	hjq5@gmail.com
tata_nexon_ev	17.19l	312km	raahul	patil	sangli	rp56@gmail.com
tata_tigor	6.10l	142km	vikram	sing	borivali	ajp@gmail.com
tata_tiago	8.53l	315km	swpnil	chavan	aitawade	swp@gmail.com
tata_tigor	6.10l	142km	suraj	khan	andheri	kl@gmail.com
tata_tigor	6.10l	142km	pranita	rane	mankhurd	pg@gmail.com
tata_tiago	8.53l	315km	rutuja	gaikwad	kolhapur	rk@gmail.com
tata_nexon_ev	17.19l	312km	rushi	lohar	satara	uo@gmail.com
tata_tigor	6.10l	142km	aaradhna	sathe	diva	as@gmail.com
tata_nexon_ev	17.19l	312km	priti	sharma	malad	akp@gmail.com
tata_tiago	8.53l	315km	bhakti	kamble	goregav	su58@gmail.com
tata_nexon_ev	17.19l	312km	nikita	jadhav	bandra	priya58@gmail.com
tata_tigor	6.10l	142km	rehana	mulla	mahim	lg98@gmail.com
tata_tigor	6.10l	142km	sid	malhotra	matunga	klm23@gmail.com
tata_nexon_ev	17.19l	312km	akshay	kumar	dadar	mla89@gmail.com
tata_tigor	6.10l	142km	rohit	pawar	parel	kpo2@gmail.com
tata_tiago	8.53l	315km	vaibhav	patil	charkop	gk5@gmail.com
tata_tigor	6.10l	142km	khushal	chavan	kalyan	ert4@gmail.com
tata_nexon_ev	17.19l	312km	swpnil	joshi	mumbra	8vb@gmail.com
tata_tigor	6.10l	142km	sushant	yadav	ghatkopar	sy90@gmail.com
tata_nexon_ev	17.19l	312km	parth	patil	pune	parth99@gmail.com
tata_tiago	8.53l	315km	atul	naik	kolhapur	atul97@gmail.com
tata_tiago	8.53l	315km	anish	bhaladar	pune	anish97@gmail.com
tata_nexon_ev	17.19l	312km	pramod	shikhare	kolhpur	pramod07@gmail.com
tata_tiago	8.53l	315km	shredhar	naik	wakad	naik85@gmail.com
tata_tigor	6.10l	142km	ankita	shirke	pune	shirke20@gmail.com
tata_nexon_ev	17.19l	312km	sayali	dinde	kolhapur	sayali03@gmail.com
tata_tigor	6.10l	142km	prajwal	jadhav	vashi	jadhav97@gmail.com
tata_tiago	8.53l	315km	sandip	patil	pune	sandip45@gmail.com
tata_tiago	8.53l	315km	prashant	chougule	panvel	prashant94@gmail.com
tata_nexon_ev	17.19l	312km	pramod	chougule	kharghar	pramod92@gmail.com
tata_tigor	6.10l	142km	rohan	kadam	airoli	rohan99@gmail.com
tata_tiago	8.53l	315km	rohit	lohar	thane	rohit98@gmail.com
tata_tiago	8.53l	315km	rohan	ghatage	ghansoli	rohan2002@gmail.com
tata_tigor	6.10l	142km	atish	patil	nerul	atish97@gmail.com
tata_tigor	6.10l	142km	vishal	tambe	panvel	vishu97@gmail.com
tata_nexon_ev	17.19l	312km	pradip	katake	ghatkopar	pradip25@gmail.com
tata_nexon_ev	17.19l	312km	suraj	tambe	ghatkopar	suraj21@gmail.com
tata_tiago	8.53l	315km	ruturaj	patil	pune	rutu@gmail.com
tata_tiago	8.53l	315km	shreedhar	patil	pune	shree@gmail.com
tata_nexon_ev	17.19l	312km	shubham	patil	mankhurad	sp2002@gmail.com
tata_tigor	6.10l	142km	abhijeet	shelake	kolhapur	abhi97@gmail.com
tata_nexon_ev	17.19l	312km	shubhash	mohite	pune	mohite23@gmail.com
tata_tiago	8.53l	315km	santosh	patl	pune	santya99@gmail.com
tata_tiago	8.53l	315km	vyankatesh	patl	airoli	vyanky97@gmail.com

50 rows in set (0.01 sec)

## 1.Perform left join employee and department but show only id, name, d\_name

mysql>select employee.id,name,d\_name from employee left join department on department.id=d\_id;

```
mysql> select employee.id,name,d_name from employee left join department on department.id=d_id;
```

id	name	d_name
1	ajit_kumar	marketing
2	rajiv_sharma	finance
3	mohan_ravat	purchases
4	alok_mitra	purchases
5	pramita_pal	HR
6	pintu_ram	sales
7	swarup_bose	HR
8	rohit_yadav	HR
9	vyankatesh_patil	HR
10	manoj_lakra	operation
11	deepak_sharma	operation
12	rahul_patil	purchases
13	ajay_patil	purchases
14	goutam_ghosh	finance
15	pranita_gaikwad	sales
16	rutuja_chavan	sales
17	ratnaprabha_aadhav	sales
18	akshay_mane	marketing
19	pradeep_ram	marketing
20	nand_gond	marketing
21	somnath_sarkar	marketing
22	pradeep_sharma	operation
23	avjit_shaha	operation
24	aditya_dhara	operation
25	ranjit_roy	sales
26	asish_ram	sales
27	monika_bhattacharya	finance
28	nirupama_haldar	finance
29	gautam_das	operation
30	raghunath_bhaskar	marketing
31	sameer_shukla	marketing
32	rohit_aanand	operation
33	prasad_rane	finance
34	vikas_valive	operation
35	ankita_shete	finance
36	rohan_kadam	operation
37	rohit_lohar	marketing
38	rohan_ghatage	marketing
39	atish_patil	marketing
40	sayali_dinde	sales
41	ankita_shirke	sales
42	rutuja_patil	finance
43	avantika_patil	sales
44	nisha_patil	sales
45	ankita_bomble	purchases
46	rajaram_shewale	operation
47	gajanan_lohar	operation
48	vishal_tambe	operation

```
48 rows in set (0.00 sec)
```



# TRIGGER

## EMPLOYEE TABLE PERFORM AFTER INSERT.

```
mysql> insert into employee  
values(49,"atish_patil","panvel","atish24@gmail.com","9845761414"  
,28000,5)#
```

```
mysql> select * from employee#
```

id	name	city	email	phone	salary	d_id
1	ajit_kumar	kolhapur	ajit@123	8564741221	25000	1
2	rajiv_sharma	mumbai	rs@1232	8564009293	28000	3
3	mohan_ravat	mumbai	mr@007	8007937274	30000	5
4	alok_mitra	mumbai	alkm@007	8830358543	30000	5
5	pramita_pal	sangli	pr007@gmail.com	8830354243	26700	4
6	pintu_ram	panvel	pntr@gmail.com	8454890092	35000	6
7	swarup_bose	uttar_pradesh	srb@gmail.com	8454891256	35000	4
8	rohit_yadav	aitawade_kh	rbby@gmail.com	9158355423	45000	4
9	vyankatesh_patil	bhedasgaon	vp@gmail.com	9152638911	45850	4
10	manoj_lakra	bhedasgaon	mjl@gmail.com	914572169	40000	2
11	deepak_sharma	thane	nmk556@gmail.com	885676169	40000	2
12	raahul_patil	sangli	rp476@gmail.com	8605860865	19000	5
13	ajay_patil	pune	ap211@gmail.com	9011427002	22000	5
14	goutam_ghosh	pune	gg583@gmail.com	9045123536	22500	3
15	pranita_gaikwad	mankhurd	pgl2@gmail.com	7383401045	30000	6
16	rutuja_chavan	mankhurd	rc912@gmail.com	7383895214	30000	6
17	ratnaprabha_aadhav	malvan	rba@gmail.com	8830364546	30000	6
18	akshay_mane	islampur	akm@gmail.com	9158302628	35000	1
19	pradeep_ram	kalva	bks@gmail.com	8008727476	35900	1
20	nand_gond	thane	kk@gmail.com	9930353832	35900	1
21	somnath_sarkar	thane	gh56@gmail.com	9930424850	38500	1
22	pradeep_sharma	borivali	jk6@gmail.com	7990000545	29000	2
23	avjit_shaha	malad	tr69@gmail.com	9218171652	29900	2
24	aditya_dhara	malad	er59@gmail.com	9225788896	23000	2
25	ranjit_roy	vashi	ranjit59@gmail.com	9254261232	25000	6
26	asish_ram	vashi	ar59@gmail.com	9254551232	30000	6
27	monika_bhattacharya	nerul	monu59@gmail.com	8825551232	32000	3
28	nirupama_haldar	sanpada	niru59@gmail.com	8868411232	35000	3
29	gautam_das	mansarovar	gautam21@gmail.com	8181411232	25000	2
30	raghunath_bhaskar	juinagar	bhaskar44@gmail.com	8888881232	40000	1
31	sameer_shukla	ulhas_nagar	mba@gmail.com	8856231456	41250	1
32	rohit_aanand	goregav	ba45@gmail.com	9922171516	41000	2
33	prasad_rane	wadala	bkc45@gmail.com	8456167474	38000	3
34	vikas_valive	kolhapur	vm545@gmail.com	9168113003	38500	2
35	ankita_shete	kolhapur	kl545@gmail.com	8845454342	38500	3
36	rohan_kadam	goregav	rk25@gmail.com	9922171551	40000	2
37	rohit_lohar	borivali	rohit25@gmail.com	8710171551	35000	1
38	rohan_ghatage	kandivali	rg25@gmail.com	8710170025	37000	1
39	atish_patil	pune	atish25@gmail.com	7500170025	42000	1
40	sayali_dinde	kolhapur	sayli03@gmail.com	7500452025	41000	6
41	ankita_shirke	kolhapur	ankita03@gmail.com	8768452025	40000	6
42	rutuja_patil	vashi	rutu28@gmail.com	8768685400	45000	3
43	avantika_patil	airoli	avp02@gmail.com	8768456202	45000	6
44	nisha_patil	airoli	nisha04@gmail.com	7404456202	40000	6
45	ankita_bomble	ghatkopar	anku24@gmail.com	8745961235	35000	5
46	rajaram_shewale	kolhapur	rajaram24@gmail.com	8745962525	30000	2
47	gajanan_lohar	kolhapur	gajanan02@gmail.com	8888962525	34000	2
48	vishal_tambe	panvel	vishu24@gmail.com	9845763214	25000	2
49	atish_patil	panvel	atish24@gmail.com	9845761414	28000	5

49 rows in set (0.00 sec)

```
mysql> select * from employee_backup#
```

id	name	city	email	phone	salary	d_id
48	vishal_tambe	panvel	vishu24@gmail.com	9845763214	25000	2
49	atish_patil	panvel	atish24@gmail.com	9845761414	28000	5

2 rows in set (0.00 sec)



## EMPLOYEE TABLE PERFORM AFTER DELETE.

mysql> delete from employee where id=49#

mysql> select \* from employee#

id	name	city	email	phone	salary	d_id
1	ajit_kumar	kolhapur	ajit@123	8564741221	25000	1
2	rajiv_sharma	mumbai	rs@1232	8564009293	28000	3
3	mohan_ravat	mumbai	mr@007	8007937274	30000	5
4	alok_mitra	mumbai	alkm@007	8830358543	30000	5
5	pramita_pal	sangli	pr007@gmail.com	8830354243	26700	4
6	pintu_ram	panvel	pntr@gmail.com	8454890092	35000	6
7	swarup_bose	uttar_pradesh	srb@gmail.com	8454891256	35000	4
8	rohit_yadav	aitawade_kh	rby@gmail.com	9158355423	45000	4
9	vyankatesh_patil	bhedasgaon	vp@gmail.com	9152638911	45850	4
10	manoj_lakra	bhedasgaon	mjl@gmail.com	914572169	40000	2
11	deepak_sharma	thane	nmk556@gmail.com	885676169	40000	2
12	rahu_l_patil	sangli	rp476@gmail.com	8605860865	19000	5
13	ajay_patil	pune	ap211@gmail.com	9011427002	22000	5
14	goutam_ghosh	pune	gg583@gmail.com	9045123536	22500	3
15	pranita_gaikwad	mankhurd	pg12@gmail.com	7383401045	30000	6
16	rutuja_chavan	mankhurd	rc912@gmail.com	7383895214	30000	6
17	ratnaprabha_aadhav	malvan	rba@gmail.com	8830364546	30000	6
18	akshay_mane	islampur	akm@gmail.com	9158302628	35000	1
19	pradeep_ram	kalva	bks@gmail.com	8008727476	35900	1
20	nand_gond	thane	kk@gmail.com	9930353832	35900	1
21	somnath_sarkar	thane	gh56@gmail.com	9930424850	38500	1
22	pradeep_sharma	borivali	jk6@gmail.com	7990000545	29000	2
23	avjit_shaha	malad	tr69@gmail.com	9218171652	29900	2
24	aditya_dhara	malad	er59@gmail.com	9225788896	23000	2
25	ranjit_roy	vashi	ranjit59@gmail.com	9254261232	25000	6
26	asish_ram	vashi	ar59@gmail.com	9254551232	30000	6
27	monika_bhattacharya	nerul	monu59@gmail.com	8825551232	32000	3
28	nirupama_haldar	sanpada	niru59@gmail.com	8868411232	35000	3
29	gautam_das	mansarvor	gautam21@gmail.com	8181411232	25000	2
30	raghunath_bhaskar	juinagar	bhaskar44@gmail.com	8888881232	40000	1
31	sameer_shukla	ulhas_nagar	mba@gmail.com	8856231456	41250	1
32	rohit_aanand	goregav	ba45@gmail.com	9922171516	41000	2
33	prasad_rane	wadala	bkc45@gmail.com	8456167474	38000	3
34	vikas_valive	kolhapur	vm545@gmail.com	9168113003	38500	2
35	ankita_shete	kolhapur	kl545@gmail.com	8845454342	38500	3
36	rohan_kadam	goregav	rk25@gmail.com	9922171551	40000	2
37	rohit_lohar	borivali	rohit25@gmail.com	8710171551	35000	1
38	rohan_ghatage	kandivali	rg25@gmail.com	8710170025	37000	1
39	atish_patil	pune	atish25@gmail.com	7500170025	42000	1
40	sayali_dinde	kolhapur	sayli03@gmail.com	7500452025	41000	6
41	ankita_shirke	kolhapur	ankita03@gmail.com	8768452025	40000	6
42	rutuja_patil	vashi	rutu28@gmail.com	8768685400	45000	3
43	avantika_patil	airoli	avp02@gmail.com	8768456202	45000	6
44	nisha_patil	airoli	nisha04@gmail.com	7404456202	40000	6
45	ankita_bomble	ghatkopar	anku24@gmail.com	8745961235	35000	5
46	rajaram_shewale	kolhapur	rajaram24@gmail.com	8745962525	30000	2
47	gajanan_lohar	kolhapur	gajanan02@gmail.com	8888962525	34000	2
48	vishal_tambe	panvel	vishu24@gmail.com	9845763214	25000	2

48 rows in set (0.00 sec)

mysql> select \* from drop\_users#

id	name	city	email	phone	salary	d_id
49	atish_patil	panvel	atish24@gmail.com	9845761414	28000	5

1 row in set (0.00 sec)

mysql>

THANK YOU