

# ASSET MANAGEMENT - PROJECT REPORT



## Group Members:

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## **Abstract:**

### **SCENARIO:**

General Administration Department provides various types of assets such as furnitures, electric equipments, etc. in the staff room as well as individual cabin of the faculty members of our college. It has various service staff for this purpose. Each faculty member can place requests for service. Based on the type of request, the GAD staff is assigned the task of providing the materials. The personal details of the requester as well as the GAD staff is maintained such as id, name, phone no. and department to know which person requested the service and who addressed the issue. A person can place one or more requests at a time. The stock and cost of each asset is to be maintained, to know the availability of the materials and initiate the purchasing if required.

### **SCOPE AND CORE FEATURES:**

An asset management system is a necessity for anyone looking to keep track of their valuables or lending them. It provides a framework that helps you manage your resources efficiently and conveniently with **controlled access** to the inventory (Privileged access for admin to manage resources).

As part of **costing and analysis**, Asset management is responsible for maintaining the university's **capital equipment inventory**. Capital equipment refers to durable, self sufficient movable property with a useful life of more than 1 year and a unit cost of 1Lakh or more.

**Distribution** of assets is meticulously monitored through a system which keeps track of the assets in terms of financial aspects and physical condition and maintain stock of said assets.

Additionally, we provide the university current and accurate **inventory information**, **authorize disposal** of university owned equipment and to offer quality surplus items to the university community in a courteous and professional manner.

**Report** of damaged assets will be inspected and necessary penalties will be incurred on the individual faculty member or the department. These damaged assets belonging to the

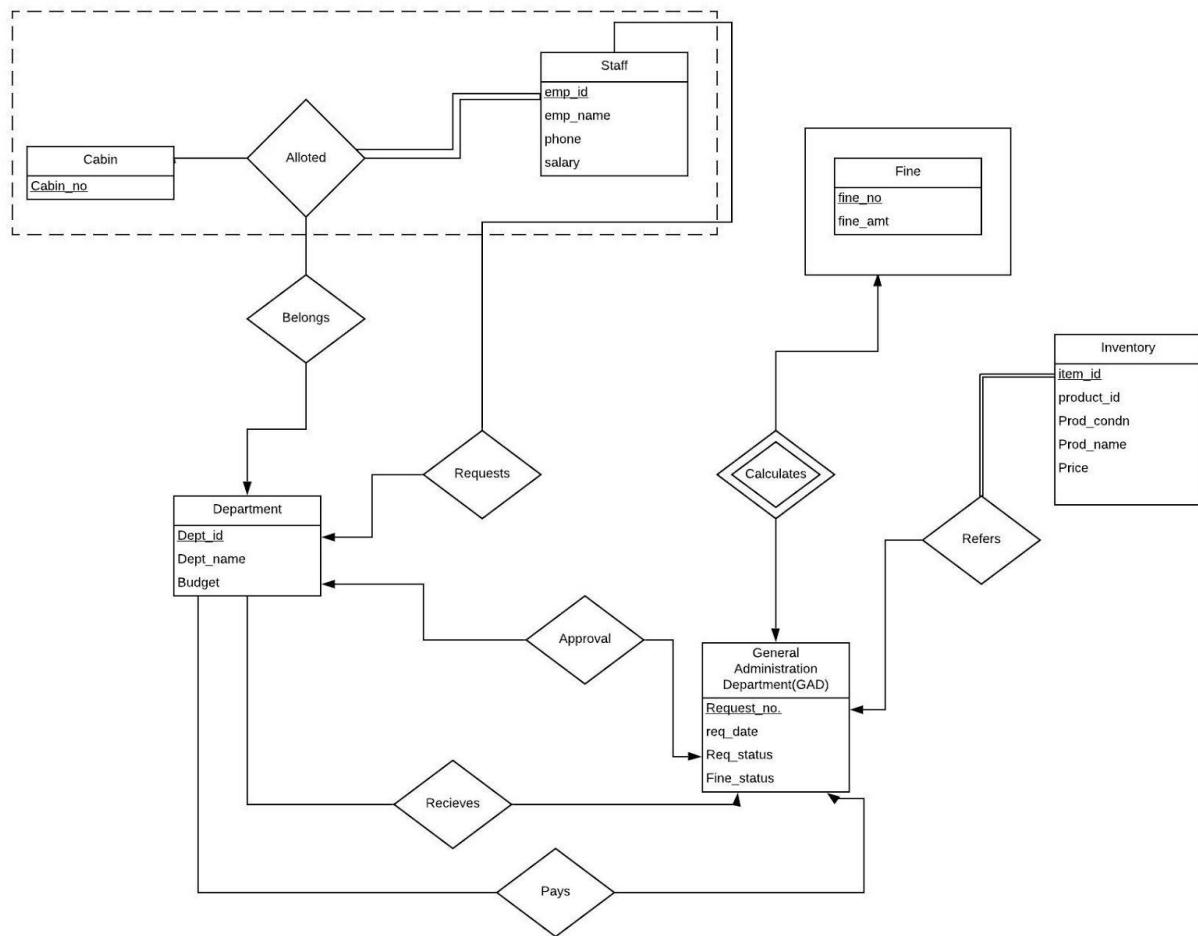
university is either disposed or recycled and puts back into circulation if damages are not severe.

**Maintenance** of assets is implemented by the GAD through inspection and evaluation of assets on a regular basis and upon request by the faculty or the department.

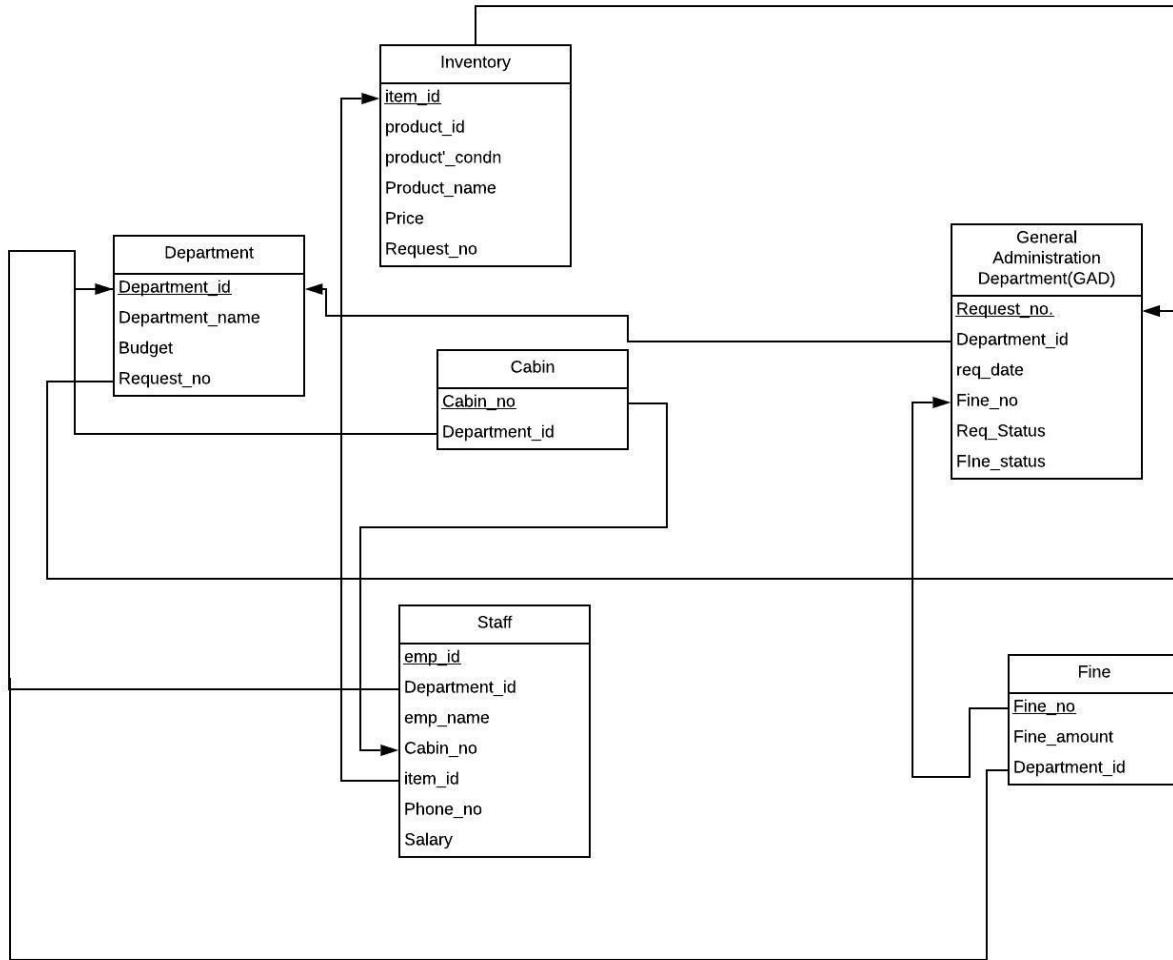
## FUTURE PLANS:

We aim to conceive a design that projects a visual experience that abstracts the plethora of processes that provides the end user a seamless usage. Also we plan to make it available across various platforms in the near future.

## ER Diagram:



## Schema Diagram:



## Relational Schema:

**Inventory**(Product\_id, Prod\_condn, Request\_no, Product\_name, Price)  
**Staff**(Employee\_id, Department\_id, Cabin\_no, Product\_id, Phone\_no, Salary)  
**Cabin**(Cabin\_no, Department\_id)  
**Department**(Department\_id, Request\_no, Department\_name, Budget)  
**GAD**(Request\_no, Department\_id, Fine\_no, req\_date, Req\_status, Fine\_status)  
**Fine**(Fine\_no, Department\_id, Fine\_amount)

## Attributes:

**dept\_id:**each department can have a unique id

**Dept\_name:**department name doesn't have to be unique as multiple schools can have same department name

**Cabin\_no:**unique cabin number for each cabin

**Emp\_id:**unique id for each employee

**Emp\_name:**non unique name of an employee

**Phone:**muti-valued non key phone number

**Salary:**salary of an employee

**budget:**Department budget

**request:**Unique key number auto generated if req\_status is yes

**Req\_status:**yes or no for verification

**Fine\_no:**unique fine id generated if fine status is yes

**Fine\_status:** yes or no for verification

**Fine\_amt:** fine amount to be paid

**Item\_id:**unique id assigned to each product

**Prod\_name:**name of a product associated with an id

**Prod\_condn:**either working or needs replacement

**Price:**price of the product

## 0NF:

dept_id	dept_name	cabin_no	emp_id	emp_name	phone	salary	budget	request_no	req_status	req_date	fine_no	fine_status	fine_amt	item_id	prod_condn	prod_name	price
102	ece	410	42	sid	92314 , 354322	9829	80000	1	no	1/1/2001	01	no	0	31	good	pen	10
101	cse	412	37	jay	65421	9888	80000	2,3	yes	2/2/2002	02	yes	14	42	replacement	book	140
103	eee	512	23	pak	45544	9880	80000	5	yes	3/3/2003	03	no	0	14	good	duster	25

## 1NF:

dept_id	dept_name	cabin_no	emp_id	emp_name	phone	salary	budget	request_no	req_status	Req_date	fine_no	fine_status	fine_amt	item_id	prod_condn	prod_name	price
102	ece	410	42	sid	92,314	9829	80000	1	no	1/1/2001	01	no	0	31	good	pen	10
102	ece	410	42	sid	35432	9829	80000	1	no	1/1/2001	01	no	0	31	good	pen	10
101	cse	412	37	jay	65421	9888	80000	2	yes	2/2/2002	02	yes	14	42	replacement	book	140
101	cse	412	37	jay	65421	9888	80000	3	yes	2/2/2002	02	yes	14	42	replacement	book	140
103	eee	512	23	pak	45544	9880	80000	5	yes	3/3/2003	03	no	0	14	good	duster	25

## 2NF:

Aggregate table:

emp_id	request_no	item_id	fine_amt
42	1	31	0
37	2	42	14
37	3	42	14
23	5	14	0

Department table:

dept_id	dept_name	budget
101	cse	80000
102	ece	80000
103	eee	8000

Staff Table:

emp_id	emp_name	phone	salary	dept_id	cabin_no
42	sid	92314	9829	102	410
37	jay	65421	9888	101	412
23	pak	45544	9880	103	512

GAD Table:

request_no	req_date	req_status	fine_no	fine_status	fine_amt
1	1/1/2001	yes	01	no	0
2	2/2/2002	no	02	yes	14
3	2/2/2002	yes	02	yes	14
5	3/3/2003	yes	03	no	0

## Inventory table:

item_id	product_condn	prod_name	price
31	good	pen	10
42	replacement	book	140
14	good	duster	25

## 3NF:

### Transitive relationship:

emp name->dept id,dept\_id->budget & request\_no-> req\_status,fine\_status, fine\_no, fine\_no-> fine\_amt, item\_id->prod\_condn, prod\_name, price, quantity

### Aggregate Table:

emp_id	request_no	item_id
42	1	31
37	2	42
37	3	42
23	5	14

### Department Table:

dept_id	dept_name	budget
101	cse	80000
102	ece	80000
103	eee	80000

### Staff Table:

emp_id	emp_name	phone	salary	dept_id	cabin_no
42	sid	92314	9829	102	410
37	jay	65421	9888	101	412
23	pak	45544	9880	103	512

## GAD Table:

request_no	req_date	req_status	fine_status	fine_no
1	1/1/2001	yes	no	01
2	2/2/2002	no	yes	02
3	2/2/2002	yes	yes	02
4	3/3/2003	yes	no	03

## Fine Table:

fine_no	fine_amt
01	0
02	14
03	0

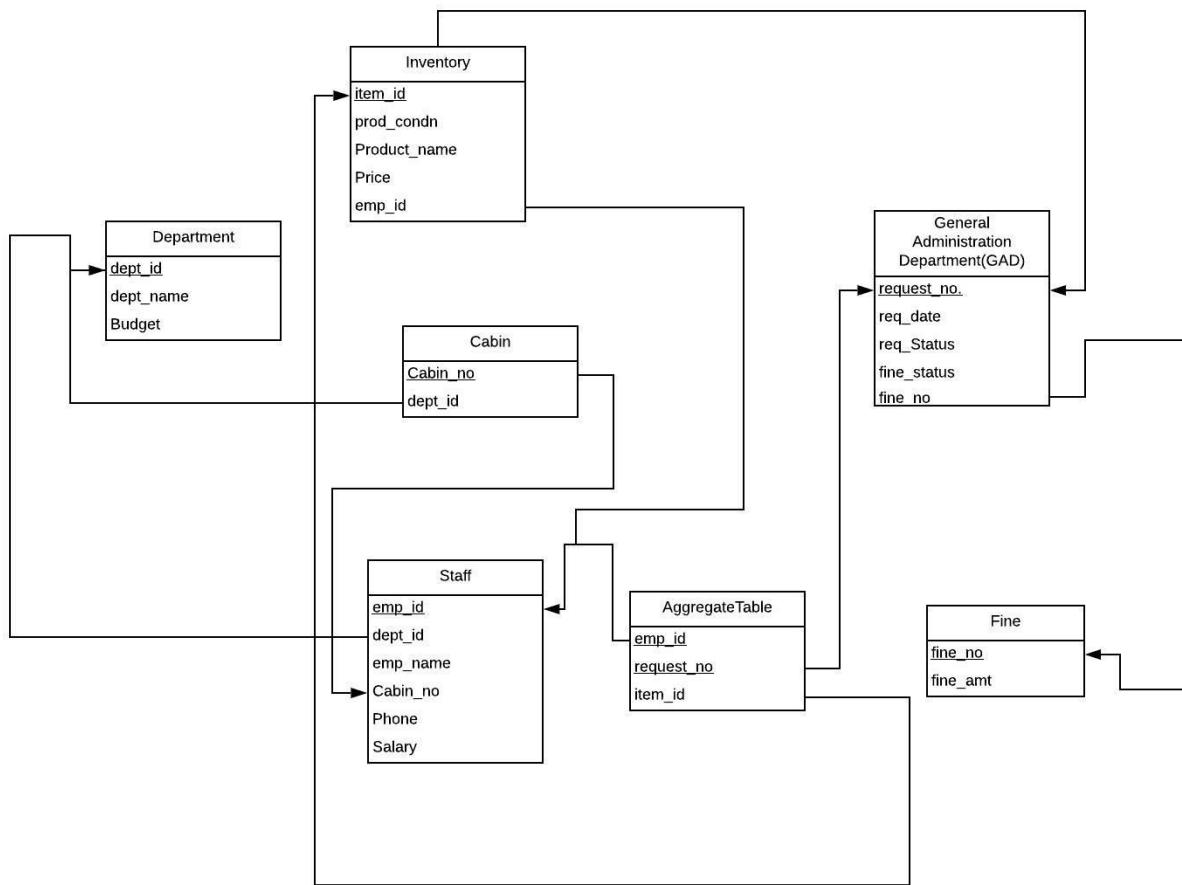
## Inventory Table:

item_id	prod_condn	prod_name	price	emp_id
31	good	pen	10	42
42	replacement	book	140	37
14	good	duster	25	23

## Cabin Table:

Cabin_no	dept_id
101	412
102	410
103	512

## UPDATED SCHEMA:



## CODE WITH SCREENSHOTS:

```
create table department(  
dept_id int primary key,  
dept_name varchar(10),  
budget numeric(8,2)  
);
```

```
create table fine(
fine_no int primary key,
fine_amt int
);

create table cabin(
cabin_no int primary key,
dept_id int references department(dept_id)
);

create table staff(
emp_id int primary key,
emp_name varchar(20),
phone numeric(10,0),
salary numeric(7,2),
dept_id int references department(dept_id),
cabin_no int references cabin(cabin_no)
);

create table GAD(
request_no serial primary key,
req_status varchar(10) default 'failed',
req_date date,
fine_status boolean default(false),
fine_no int references fine(fine_no) default(null)
);

create table inventory(
item_id int primary key,
item_condition varchar(10),
item_name varchar(10),
price int,
emp_id int references staff(emp_id) default(null)
);
```

```

create table aggregatetable(
emp_id int references staff(emp_id),
request_no int references GAD(request_no),
item_id int references inventory(item_id),
primary key(emp_id,request_no)
);

insert into department
values(1,'CSE',10000),(2,'ECE',10000),(3,'MECH',10000),(4,'EEE',10000),(5,'EIE',1
0000);
select * from department;
insert into fine values(1,100),(2,200);
select * from fine;
insert into cabin values(1,1),(2,1),(3,2),(4,3),(5,4),(6,5),(7,1),(8,3);
select * from cabin;
insert into staff
values(100,'Ramesh',123,1000,1,1),(101,'Suresh',556,2000,2,3),(102,'Rajesh',444,1
500,3,2),(103,'Gopi',555,9000,3,4);
select * from staff;
/*Filling the inventory*/
insert into inventory
values(0,'GOOD','LAPTOP',1000),(1,'GOOD','PROJECTOR',1000),(2,'GOOD','LAPTOP',200
0),(3,'GOOD','TV',11000);
select * from inventory;
/*Making a request*/
insert into GAD values(1,'failed','01/01/2019');
select * from GAD;
insert into aggregatetable values(100,1,0);
create view checkp as select budget from department where dept_id in(SELECT
dept_id from staff where emp_id=100);
create view getp as select price from inventory where item_id=0; /*change req
no*/
update gad set req_status='success' from checkp,getp where
checkp.budget>getp.price;
update department set budget=budget-getp.price from getp where dept_id=1;
/*change dep id*/

```

```

update aggregatetable set item_id=null from gad where gad.req_status='failed' and
gad.request_no=1; /*change req no*/
update inventory set emp_id=100 where item_id=0;
select * from inventory;
select * from gad;
select * from department;
select * from aggregatetable;
select * from staff;

/*Making a request*/
insert into GAD values(2,'failed','02/01/2019');
select * from GAD;
insert into aggregatetable values(101,2,1);
drop view getp;
drop view checkp;
create view checkp as select budget from department where dept_id in(SELECT
dept_id from staff where emp_id=101);
create view getp as select price from inventory where item_id=1; /*change req
no*/
update gad set req_status='success' from checkp,getp where
checkp.budget>getp.price;
update department set budget=budget-getp.price from getp where dept_id=2;
/*change dep id*/
update aggregatetable set item_id=null from gad where gad.req_status='failed' and
gad.request_no=2; /*change req no*/
update inventory set emp_id=101 where item_id=1;
select * from inventory;
select * from gad;
select * from staff;
select * from department;
select * from aggregatetable;

/*Making a request*/
insert into GAD values(3,'failed','02/01/2019');
select * from GAD;
insert into aggregatetable values(102,3,2);

```

```

drop view getp;
drop view checkp;
create view checkp as select budget from department where dept_id in(SELECT
dept_id from staff where emp_id=102);
create view getp as select price from inventory where item_id=2; /*change req
no*/
update gad set req_status='success' from checkp,getp where
checkp.budget>getp.price;
update department set budget=budget-getp.price from getp where dept_id=3;
/*change dep id*/
update aggregatetable set item_id=null from gad where gad.req_status='failed' and
gad.request_no=3; /*change req no*/
update inventory set emp_id=102 where item_id=2;
select * from inventory;
select * from gad;
select * from staff;
select * from department;
select * from aggregatetable;

/*Making a request*/
insert into GAD values(4,'failed','03/01/2019');
select * from GAD;
insert into aggregatetable values(103,4,3);
drop view getp;
drop view checkp;
create view checkp as select budget from department where dept_id in(SELECT
dept_id from staff where emp_id=103);
create view getp as select price from inventory where item_id=3; /*change req
no*/
update gad set req_status='success' from checkp,getp where
checkp.budget>getp.price;
update aggregatetable set item_id=null from gad where aggregatetable.request_no
in (select gad.request_no from gad where req_status='failed'); /*change req no*/
select * from inventory;
select * from gad;
select * from staff;

```

```
select * from department;
select * from aggregatetable;

/*Fine*/
insert into fine values(1,1000);
update gad set fine_status=true,fine_no=1 where request_no=2;
select * from gad;
update inventory set emp_id=null,item_condition='BAD' where item_id=1;
select * from inventory;
/*1st Query*/ /*Aggregate Function*/
select count(item_name),item_name from inventory group by item_name;
select avg(salary) as Avg_salary,sum(salary) as tot_salary,max(salary) as max_salary,min(salary) as min_salary from staff;

/*2nd Query*/ /*Order by queries*/
select aggregatetable.emp_id,aggregatetable.item_id from aggregatetable order by emp_id;
select * from cabin order by cabin.dept_id;

/*3rd query*/ /*Join Queries*/
select request_no,item_name from aggregatetable join inventory on aggregatetable.item_id=inventory.item_id;
select * from aggregatetable full outer join staff on aggregatetable.emp_id=staff.emp_id;
select * from inventory natural join staff ;
select emp_name,item_name from inventory inner join staff on inventory.emp_id=staff.emp_id;

/*4th Query*/ /*Boolean Queries*/
select * from gad where fine_status=false;
select fine_amt,request_no from gad natural join fine where fine_status=true;

/*5th Query*/ /*Arithmetic operator*/
select dept_name,budget as dept_budget,item_name,price from department natural join inventory where (budget-price>5000);
```

```

/*6th Query*/ /*String search*/
select emp_name,phone from staff where emp_name like 'Ra%';

/*7th Query*/ /*Extract Query*/
select extract(month from req_date) as Req_month from gad;

/*8th Query*/ /*between, in, not between queries*/
select * from staff where salary between 1000 and 4000;
select * from staff where salary not in(select salary from staff where
salary>1500);
select * from staff where salary not between 1000 and 1500;

/*9th Query*/ /*update query*/
update staff set emp_name='Naresh' where emp_id=101;
select emp_id,emp_name from staff;

/*10th Query*/ /*Subquery*/
select item_name,price from inventory where price in(select price from inventory
where price>1000);

/*11th Query*/ /*Exists,not exists,any,all*/
select * from inventory where exists(select * from staff where
inventory.emp_id=staff.emp_id);
select * from inventory where not exists(select * from staff where
inventory.emp_id=staff.emp_id);
select * from inventory where price = any(select price from inventory where
price=1000);
select * from department where budget=all(select budget from department where
budget=10000);

```

## SCREENSHOTS

Query - postgres on localhost:5432 \*

File Edit Query Favorites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select * from inventory;
/*Making a request*/
insert into GAD values(1,'failed','01/01/2019');
select * from GAD;
insert into aggregatetable values(100,1,0);
create view checkp as select budget from department where dept_id in(SELECT dept_id from staff where emp_id=100);
create view getp as select price from inventory where item_id=0; /*change req no*/
update gad set req_status='success' from checkp,getp where checkp.budget>getp.price;
update department set budget=budget-getp.price from getp where dept_id=1; /*change dep id*/
update aggregatetable set item_id=null from gad where gad.req_status='failed' and gad.request_no=1; /*change req no*/
update inventory set emp_id=100 where item_id=0;
select * from inventory;
select * from gad;
select * from department;
select * from aggregatetable;
select * from staff;
```

Output pane

Data Output Explain Messages History

item_id	item_condition	item_name	price	emp_id
1	1 GOOD	PROJECTOR	1000	
2	2 GOOD	LAPTOP	2000	
3	3 GOOD	TV	11000	
4	0 GOOD	LAPTOP	1000	100

DOS Ln 83, Col 1, Ch 2589 688 chars 4 rows. 32 msec

Type here to search

OK

Query - postgres on localhost:5432 \*

File Edit Query Favorites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select * from inventory;
/*Making a request*/
insert into GAD values(1,'failed','01/01/2019');
select * from GAD;
insert into aggregatetable values(100,1,0);
create view checkp as select budget from department where dept_id in(SELECT dept_id from staff where emp_id=100);
create view getp as select price from inventory where item_id=0; /*change req no*/
update gad set req_status='success' from checkp,getp where checkp.budget>getp.price;
update department set budget=budget-getp.price from getp where dept_id=1; /*change dep id*/
update aggregatetable set item_id=null from gad where gad.req_status='failed' and gad.request_no=1; /*change req no*/
update inventory set emp_id=100 where item_id=0;
select * from inventory;
select * from gad;
select * from department;
select * from aggregatetable;
select * from staff;
```

Output pane

Data Output Explain Messages History

request_no	req_status	req_date	fine_status	fine_no
1	success	2019-01-01	f	

DOS Ln 84, Col 1, Ch 2611 12 chars 1 row. 11 msec

Type here to search

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favorites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select * from inventory;
/*Making a request*/
insert into GAD values(1,'failed','01/01/2019');
select * from GAD;
insert into aggregatetable values(100,1,0);
create view checkp as select budget from department where dept_id in(SELECT dept_id from staff where emp_id=100);
create view getp as select price from inventory where item_id=0; /*change req no*/
update gad set req_status='success' from checkp,getp where checkp.budget>getp.price;
update department set budget=budget-getp.price from getp where dept_id=1; /*change dep id*/
update aggregatetable set item_id=null from gad where gad.req_status='failed' and gad.request_no=1; /*change req no*/
update inventory set emp_id=100 where item_id=0;
select * from inventory;
select * from gad;
select * from department;
select * from aggregatetable;
select * from staff;
```

Output pane

Data Output Explain Messages History

dept_id	dept_name	budget
1	2 ECE	10000.00
2	3 MECH	10000.00
3	4 EEE	10000.00
4	5 EIE	10000.00
5	1 CSE	9000.00

OK Type here to search

DOS Ln 85, Col 1, Ch 2638 27 chars 5 rows. 11 msec

Scratch pad

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favorites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select * from inventory;
/*Making a request*/
insert into GAD values(1,'failed','01/01/2019');
select * from GAD;
insert into aggregatetable values(100,1,0);
create view checkp as select budget from department where dept_id in(SELECT dept_id from staff where emp_id=100);
create view getp as select price from inventory where item_id=0; /*change req no*/
update gad set req_status='success' from checkp,getp where checkp.budget>getp.price;
update department set budget=budget-getp.price from getp where dept_id=1; /*change dep id*/
update aggregatetable set item_id=null from gad where gad.req_status='failed' and gad.request_no=1; /*change req no*/
update inventory set emp_id=100 where item_id=0;
select * from inventory;
select * from gad;
select * from department;
select * from aggregatetable;
select * from staff;
```

Output pane

Data Output Explain Messages History

emp_id	request_no	item_id
100	1	0

OK Type here to search

DOS Ln 86, Col 1, Ch 2669 31 chars 1 row. 12 msec

Scratch pad

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favorites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select * from inventory;
/*Making a request*/
insert into GAD values(1,'failed','01/01/2019');
select * from GAD;
insert into aggregatetable values(100,1,0);
create view checkp as select budget from department where dept_id in(SELECT dept_id from staff where emp_id=100);
create view getp as select price from inventory where item_id=0; /*change req no*/
update gad set req_status='success' from checkp,getp where checkp.budget>getp.price;
update department set budget=budget-getp.price from getp where dept_id=1; /*change dep id*/
update aggregatetable set item_id=null from gad where gad.req_status='failed' and gad.request_no=1; /*change req no*/
update inventory set emp_id=100 where item_id=0;
select * from inventory;
select * from gad;
select * from department;
select * from aggregatetable;
select * from staff;

```

Output pane

Data Output Explain Messages History

emp_id	emp_name	phone	salary	dept_id	cabin_no
1	100 Ramesh	123	1000.00	1	1
2	101 Suresh	556	2000.00	2	3
3	102 Rajesh	444	1500.00	3	2
4	103 Gopi	555	9000.00	3	4

DOS Ln 87, Col 1, Ch 2691 22 chars 4 rows. 11 msec

Type here to search

OK

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favorites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

/*Making a request*/
insert into GAD values(4,'failed','03/01/2019');
select * from GAD;
insert into aggregatetable values(103,4,3);
drop view getp;
drop view checkp;
create view checkp as select budget from department where dept_id in(SELECT dept_id from staff where emp_id=103);
create view getp as select price from inventory where item_id=3; /*change req no*/
update gad set req_status='success' from checkp,getp where checkp.budget>getp.price;
update aggregatetable set item_id=null from gad where aggregatetable.request_no in (select gad.request_no from gad where
select * from inventory;
select * from gad;
select * from staff;
select * from department;
select * from aggregatetable;

```

Output pane

Data Output Explain Messages History

request_no	req_status	req_date	fine_status	fine_no
1	success	2019-01-01 f		
2	failed	2019-01-03 f		

DOS Ln 138, Col 1, Ch 5065 22 chars 2 rows. 11 msec

Type here to search

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favorites Macros View Help

SQL Editor Graphical Query Builder

Previous queries Delete Delete All

```

/*Making a request*/
insert into GAD values(4,'failed','03/01/2019');
select * from GAD;
insert into aggregatable values(103,4,3);
drop view getp;
drop view checkp;
create view checkp as select budget from department where dept_id in(SELECT dept_id from staff where emp_id=103);
create view getp as select price from inventory where item_id=3; /*change req no*/
update gad set req_status='success' from checkp,getp where checkp.budget>getp.price;
update aggregatable set item_id=null from gad where aggregatable.request_no in (select gad.request_no from gad where
select * from inventory;
select * from gad;
select * from department;
select * from aggregatable;

```

Output pane

Data Output Explain Messages History

dept_id	dept_name	budget
integer	character varying(10)	numeric(8,2)
1	2 ECE	10000.00
2	3 MECH	10000.00
3	4 EEE	10000.00
4	5 EIE	10000.00
5	1 CSE	9000.00

DOS Ln 139, Col 1, Ch 5092 27 chars 5 rows. 12 msec

Type here to search

OK.

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favorites Macros View Help

SQL Editor Graphical Query Builder

Previous queries Delete Delete All

```

/*Making a request*/
insert into GAD values(4,'failed','03/01/2019');
select * from GAD;
insert into aggregatable values(103,4,3);
drop view getp;
drop view checkp;
create view checkp as select budget from department where dept_id in(SELECT dept_id from staff where emp_id=103);
create view getp as select price from inventory where item_id=3; /*change req no*/
update gad set req_status='success' from checkp,getp where checkp.budget>getp.price;
update aggregatable set item_id=null from gad where aggregatable.request_no in (select gad.request_no from gad where
select * from inventory;
select * from gad;
select * from department;
select * from aggregatable;

```

Output pane

Data Output Explain Messages History

emp_id	request_no	item_id
integer	integer	integer
1	100	1
2	103	4

DOS Ln 140, Col 1, Ch 5123 31 chars 2 rows. 11 msec

Type here to search

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favorites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

create view getp as select price from inventory where item_id=3; /*change req no*/
update gad set req_status='success' from checkp,getp where checkp.budget>getp.price;
update aggregatetable set item_id=null from gad where aggregatetable.request_no in (select gad.request_no from gad where
select * from inventory;
select * from gad;
select * from department;
select * from aggregatetable;

/*Fine*/
insert into fine values(1,1000);
update gad set fine_status=true,fine_no=1 where request_no=2;
select * from gad;
update inventory set emp_id=null,item_condition='BAD' where item_id=1;
select * from inventory;
/*1st Query*/
select count(item_name),item_name from inventory group by item_name;
select avg(salary) as Avg_salary,sum(salary) as tot_salary,max(salary) as max_salary,min(salary) as min_salary from staff

```

Output pane

Data Output Explain Messages History

request_no	req_status	req_date	fine_status	fine_no
1	success	2019-01-01	f	
2	success	2019-01-03	f	
3	success	2019-01-02	f	
4	success	2019-01-02	t	1

DOS Ln 145, Col 1, Ch 5254 85 chars 4 rows. 11 msec

Type here to search

Scratch pad

OK.

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favorites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

create view getp as select price from inventory where item_id=3; /*change req no*/
update gad set req_status='success' from checkp,getp where checkp.budget>getp.price;
update aggregatetable set item_id=null from gad where aggregatetable.request_no in (select gad.request_no from gad where
select * from inventory;
select * from gad;
select * from department;
select * from aggregatetable;

/*Fine*/
insert into fine values(1,1000);
update gad set fine_status=true,fine_no=1 where request_no=2;
select * from gad;
update inventory set emp_id=null,item condition='BAD' where item id=1;
select * from inventory;
/*1st Query*/
select count(item_name),item_name from inventory group by item_name;
select avg(salary) as Avg_salary,sum(salary) as tot_salary,max(salary) as max_salary,min(salary) as min_salary from staff

```

Output pane

Data Output Explain Messages History

item_id	item_condition	item_name	price	emp_id
1	GOOD	TV	11000	
2	GOOD	LAPTOP	1000	100
3	GOOD	LAPTOP	2000	102
4	BAD	PROJECTOR	1000	

DOS Ln 147, Col 1, Ch 5355 101 chars 4 rows. 10 msec

Type here to search

Scratch pad

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries Delete Delete All

```

/*Fine*/
insert into fine values(1,1000);
update gad set fine_status=true,fine_no=1 where request_no=2;
select * from gad;
update inventory set emp_id=null,item_condition='BAD' where item_id=1;
select * from inventory;
/*1st Query*/
select count(item_name),item_name from inventory group by item_name;
select avg(salary) as Avg_salary,sum(salary) as tot_salary,max(salary) as max_salary,min(salary) as min_salary from staff

/*2nd Query*/
select aggregatetable.emp_id,aggregatetable.item_id from aggregatetable order by emp_id;
select * from cabin order by cabin.dept_id;

/*3rd query*/

```

Output pane

Data Output Explain Messages History

count	item_name
bigint	character varying(10)
1	1 TV
2	2 LAPTOP
3	1 PROJECTOR

DOS Ln 149, Col 1, Ch 5440 70 chars 3 rows. 11 msec

Type here to search

OK.

Scratch pad

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries Delete Delete All

```

/*Fine*/
insert into fine values(1,1000);
update gad set fine_status=true,fine_no=1 where request_no=2;
select * from gad;
update inventory set emp_id=null,item_condition='BAD' where item_id=1;
select * from inventory;
/*1st Query*/
select count(item_name),item_name from inventory group by item_name;
select avg(salary) as Avg_salary,sum(salary) as tot_salary,max(salary) as max_salary,min(salary) as min_salary from staff

/*2nd Query*/
select aggregatetable.emp_id,aggregatetable.item_id from aggregatetable order by emp_id;
select * from cabin order by cabin.dept_id;

/*3rd query*/

```

Output pane

Data Output Explain Messages History

avg_salary	tot_salary	max_salary	min_salary	
numeric	numeric	numeric	numeric	
1	3375.0000000000000000	13500.00	9000.00	1000.00

DOS Ln 150, Col 1, Ch 5564 124 chars 1 rows. 11 msec

Type here to search

Scratch pad

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries Delete Delete All

```
/*Fine*/
insert into fine values(1,1000);
update gad set fine_status=true,fine_no=1 where request_no=2;
select * from gad;
update inventory set emp_id=null,item_condition='BAD' where item_id=1;
select * from inventory;
/*1st Query*/
select count(item_name),item_name from inventory group by item_name;
select avg(salary) as Avg_salary,sum(salary) as tot_salary,max(salary) as max_salary,min(salary) as min_salary from staff

/*2nd Query*/
select aggregatetable.emp_id,aggregatetable.item_id from aggregatetable order by emp_id;
select * from cabin order by cabin.dept_id;

/*3rd query*/

```

Output pane

Data Output Explain Messages History

emp_id	item_id
integer	integer
1	100
2	101
3	102
4	103

DOS Ln 155, Col 1, Ch 5675 90 chars 4 rows. 12 msec

Type here to search

OK.

Windows Taskbar: Type here to search, File Explorer, Edge, File, Mail, Firefox, Spotify, VS Code

System tray: ENG 10:03 12-11-2019

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries Delete Delete All

```
/*Fine*/
insert into fine values(1,1000);
update gad set fine_status=true,fine_no=1 where request_no=2;
select * from gad;
update inventory set emp_id=null,item_condition='BAD' where item_id=1;
select * from inventory;
/*1st Query*/
select count(item_name),item_name from inventory group by item_name;
select avg(salary) as Avg_salary,sum(salary) as tot_salary,max(salary) as max_salary,min(salary) as min_salary from staff

/*2nd Query*/
select aggregatetable.emp_id,aggregatetable.item_id from aggregatetable order by emp_id;
select * from cabin order by cabin.dept_id;

/*3rd query*/

```

Output pane

Data Output Explain Messages History

cabin_no	dept_id
integer	integer
1	1
2	7
3	2
4	3
5	8
6	4
7	5
8	6

DOS Ln 156, Col 1, Ch 5720 45 chars 8 rows. 11 msec

Type here to search

Windows Taskbar: Type here to search, File Explorer, Edge, File, Mail, Firefox, Spotify, VS Code

System tray: ENG 10:03 12-11-2019

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

update gad set fine_status=true,fine_no=1 where request_no=2;
select * from gad;
update inventory set emp_id=null,item_condition='BAD' where item_id=1;
select * from inventory;
/*1st Query*/
select count(item_name),item_name from inventory group by item_name;
select avg(salary) as Avg_salary,sum(salary) as tot_salary,max(salary) as max_salary,min(salary) as min_salary from staff

/*2nd Query*/
select aggregatetable.emp_id,aggregatetable.item_id from aggregatetable order by emp_id;
select * from cabin order by cabin.dept_id;

/*3rd query*/
select request_no,item_name from aggregatetable join inventory on aggregatetable.item_id=inventory.item_id;
select * from aggregatetable full outer join staff on aggregatetable.emp_id=staff.emp_id;

```

Output pane

Data Output Explain Messages History

request_no	item_name
1	LAPTOP
2	PROJECTOR
3	LAPTOP

DOS Ln 159, Col 1, Ch 5846 109 chars 3 rows. 11 msec

Type here to search

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select count(item_name),item_name from inventory group by item_name;
select avg(salary) as Avg_salary,sum(salary) as tot_salary,max(salary) as max_salary,min(salary) as min_salary from staff

/*2nd Query*/
select aggregatetable.emp_id,aggregatetable.item_id from aggregatetable order by emp_id;
select * from cabin order by cabin.dept_id;

/*3rd query*/
select request_no,item_name from aggregatetable join inventory on aggregatetable.item_id=inventory.item_id;
select * from aggregatetable full outer join staff on aggregatetable.emp_id=staff.emp_id;
select * from inventory natural join staff ;
select emp_name,item_name from inventory inner join staff on inventory.emp_id=staff.emp_id;

/*4th Query*/
select * from gad where fine_status=false;

```

Output pane

Data Output Explain Messages History

emp_id	request_no	item_id	emp_id	emp_name	phone	salary	dept_id	cabin_no
1	100	1	0	100 Ramesh	123	1000.00	1	1
2	103	4		103 Gopi	555	9000.00	3	4
3	101	2	1	101 Suresh	556	2000.00	2	3
4	102	3	2	102 Rajesh	444	1500.00	3	2

DOS Ln 160, Col 1, Ch 5937 91 chars 4 rows. 11 msec

Type here to search

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select count(item_name),item_name from inventory group by item_name;
select avg(salary) as Avg_salary,sum(salary) as tot_salary,max(salary) as max_salary,min(salary) as min_salary from staff

/*2nd Query*/
select aggregatetable.emp_id,aggregatetable.item_id from aggregatetable order by emp_id;
select * from cabin order by cabin.dept_id;

/*3rd query*/
select request_no,item_name from aggregatetable join inventory on aggregatetable.item_id=inventory.item_id;
select * from aggregatetable full outer join staff on aggregatetable.emp_id=staff.emp_id;
select * from inventory natural join staff ;
select emp_name,item_name from inventory inner join staff on inventory.emp_id=staff.emp_id;

/*4th Query*/
select * from gad where fine_status=false;

```

Output pane

Data Output Explain Messages History

emp_id	item_id	item_condition	item_name	price	emp_name	phone	salary	dept_id	cabin_no
1	100	0 GOOD	LAPTOP	1000	Ramesh	123	1000.00	1	1
2	102	2 GOOD	LAPTOP	2000	Rajesh	444	1500.00	3	2

OK Type here to search

DOS Ln 161, Col 1, Ch 5983 46 chars 2 rows. 12 msec

Scratch pad

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select count(item_name),item_name from inventory group by item_name;
select avg(salary) as Avg_salary,sum(salary) as tot_salary,max(salary) as max_salary,min(salary) as min_salary from staff

/*2nd Query*/
select aggregatetable.emp_id,aggregatetable.item_id from aggregatetable order by emp_id;
select * from cabin order by cabin.dept_id;

/*3rd query*/
select request_no,item_name from aggregatetable join inventory on aggregatetable.item_id=inventory.item_id;
select * from aggregatetable full outer join staff on aggregatetable.emp_id=staff.emp_id;
select * from inventory natural join staff ;
select emp_name,item_name from inventory inner join staff on inventory.emp_id=staff.emp_id;

/*4th Query*/
select * from gad where fine_status=false;

```

Output pane

Data Output Explain Messages History

emp_name	item_name
Ramesh	LAPTOP
Rajesh	LAPTOP

OK Type here to search

DOS Ln 162, Col 1, Ch 6076 93 chars 2 rows. 1004 12 msec

Scratch pad

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select aggregatetable.emp_id,aggregatetable.item_id from aggregatetable order by emp_id;
select * from cabin order by cabin.dept_id;

/*3rd query*/
select request_no,item_name from aggregatetable join inventory on aggregatetable.item_id=inventory.item_id;
select * from aggregatetable full outer join staff on aggregatetable.emp_id=staff.emp_id;
select * from inventory natural join staff ;
select emp_name,item_name from inventory inner join staff on inventory.emp_id=staff.emp_id;

/*4th Query*/
select * from gad where fine_status=false;
select fine_amt,request_no from gad natural join fine where fine_status=true;

/*5th Query*/
select dept_name,budget as dept_budget,item_name,price from department natural join inventory where (budget-price>5000);

/*6th Query*/

```

Output pane

Data Output Explain Messages History

request_no	req_status	req_date	fine_status	fine_no
1	success	2019-01-01	f	
2	success	2019-01-03	f	
3	success	2019-01-02	f	

DOS Ln 165, Col 1, Ch 6137 44 chars 3 rows. 11 msec

Type here to search

OK.

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select aggregatetable.emp_id,aggregatetable.item_id from aggregatetable order by emp_id;
select * from cabin order by cabin.dept_id;

/*3rd query*/
select request_no,item_name from aggregatetable join inventory on aggregatetable.item_id=inventory.item_id;
select * from aggregatetable full outer join staff on aggregatetable.emp_id=staff.emp_id;
select * from inventory natural join staff ;
select emp_name,item_name from inventory inner join staff on inventory.emp_id=staff.emp_id;

/*4th Query*/
select * from gad where fine_status=false;
select fine_amt,request_no from gad natural join fine where fine_status=true;

/*5th Query*/
select dept_name,budget as dept_budget,item_name,price from department natural join inventory where (budget-price>5000);

/*6th Query*/

```

Output pane

Data Output Explain Messages History

fine_amt	request_no
100	2

DOS Ln 166, Col 1, Ch 6116 79 chars 1 rows. 11 msec

Type here to search

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select aggregatetable.emp_id,aggregatetable.item_id from aggregatetable order by emp_id;
select * from cabin order by cabin.dept_id;

/*3rd query*/
select request_no,item_name from aggregatetable join inventory on aggregatetable.item_id=inventory.item_id;
select * from aggregatetable full outer join staff on aggregatetable.emp_id=staff.emp_id;
select * from inventory natural join staff ;
select emp_name,item_name from inventory inner join staff on inventory.emp_id=staff.emp_id;

/*4th Query*/
select * from gad where fine_status=false;
select fine_amt,request_no from gad natural join fine where fine_status=true;

/*5th Query*/
select dept_name,budget as dept_budget,item_name,price from department natural join inventory where (budget-price>5000);

/*6th Query*/

```

Output pane

Data Output Explain Messages History

	dept_name	dept_budget	item_name	price
1	EEE	10000.00	LAPTOP	1000
2	EEE	10000.00	LAPTOP	2000
3	EEE	10000.00	PROJECTOR	1000
4	EIE	10000.00	LAPTOP	1000
5	EIE	10000.00	LAPTOP	2000
6	EIE	10000.00	PROJECTOR	1000
7	CSE	9000.00	LAPTOP	1000
8	CSE	9000.00	LAPTOP	2000
9	CSE	9000.00	PROJECTOR	1000
10	ECE	9000.00	LAPTOP	1000
11	ECE	9000.00	LAPTOP	2000
12	ECE	9000.00	PROJECTOR	1000

DOS Ln 169, Col 1, Ch 6355 122 chars 15 rows. 11 msec

Type here to search

Scratch pad

OK.

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select emp_name,item_name from inventory inner join staff on inventory.emp_id=staff.emp_id;

/*4th Query*/
select * from gad where fine_status=false;
select fine_amt,request_no from gad natural join fine where fine_status=true;

/*5th Query*/
select dept_name,budget as dept_budget,item_name,price from department natural join inventory where (budget-price>5000);

/*6th Query*/
select emp_name,phone from staff where emp_name like 'Ra%';

/*7th Query*/
select extract(month from req_date) as Req_month from gad;

/*8th Query*/
select * from staff where salary between 1000 and 4000;

```

Output pane

Data Output Explain Messages History

	emp_name	phone
1	Ramesh	123
2	Rajesh	444

DOS Ln 172, Col 1, Ch 6433 61 chars 2 rows. 13 msec

Type here to search

Scratch pad

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select emp_name,item_name from inventory inner join staff on inventory.emp_id=staff.emp_id;

/*4th Query*/
select * from gad where fine_status=false;
select fine_amt,request_no from gad natural join fine where fine_status=true;

/*5th Query*/
select dept_name,budget as dept_budget,item_name,price from department natural join inventory where (budget-price>5000);

/*6th Query*/
select emp_name,phone from staff where emp_name like 'Ra%';

/*7th Query*/
select extract(month from req_date) as Req_month from gad;

/*8th Query*/
select * from staff where salary between 1000 and 4000;

```

Output pane

Data Output Explain Messages History

req_month	double precision
1	1
2	1
3	1
4	1

DOS Ln 175, Col 1, Ch 6510 60 chars 4 rows. 12 msec

Type here to search

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select * from gad where fine_status=false;
select fine_amt,request_no from gad natural join fine where fine_status=true;

/*5th Query*/
select dept_name,budget as dept_budget,item_name,price from department natural join inventory where (budget-price>5000);

/*6th Query*/
select emp_name,phone from staff where emp_name like 'Ra%';

/*7th Query*/
select extract(month from req_date) as Req_month from gad;

/*8th Query*/
select * from staff where salary between 1000 and 4000;
select * from staff where salary in (select salary from staff where salary>1000);
select * from staff where salary not in(select salary from staff where salary>1500);
select * from staff where salary not between 1000 and 1500;

```

Output pane

Data Output Explain Messages History

emp_id	emp_name	phone	salary	dept_id	cabin_no
1	100 Ramesh	123	1000.00	1	1
2	101 Suresh	556	2000.00	2	3
3	102 Rajesh	444	1500.00	3	2

DOS Ln 176, Col 1, Ch 6584 57 chars 3 rows. 12 msec

Type here to search

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select * from gad where fine_status=false;
select fine_amt,request_no from gad natural join fine where fine_status=true;

/*5th Query*/
select dept_name,budget as dept_budget,item_name,price from department natural join inventory where (budget-price>5000);

/*6th Query*/
select emp_name,phone from staff where emp_name like 'Ra%';

/*7th Query*/
select extract(month from req_date) as Req_month from gad;

/*8th Query*/
select * from staff where salary between 1000 and 4000;
select * from staff where salary in (select salary from staff where salary>1000);
select * from staff where salary not in(select salary from staff where salary>1500);
select * from staff where salary not between 1000 and 1500;

```

Output pane

Data Output Explain Messages History

emp_id	emp_name	phone	salary	dept_id	cabin_no
1	100 Ramesh	123	1000.00	1	1
2	102 Rajesh	444	1500.00	3	2

DOS Ln 180, Col 1, Ch 6753 86 chars 2 rows. 11 msec

Type here to search

OK.

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select fine_amt,request_no from gad natural join fine where fine_status=true;

/*5th Query*/
select dept_name,budget as dept_budget,item_name,price from department natural join inventory where (budget-price>5000);

/*6th Query*/
select emp_name,phone from staff where emp_name like 'Ra%';

/*7th Query*/
select extract(month from req_date) as Req_month from gad;

/*8th Query*/
select * from staff where salary between 1000 and 4000;
select * from staff where salary in (select salary from staff where salary>1000);
select * from staff where salary not in(select salary from staff where salary>1500);
select * from staff where salary not between 1000 and 1500;

```

Output pane

Data Output Explain Messages History

emp_id	emp_name	phone	salary	dept_id	cabin_no
1	101 Suresh	556	2000.00	2	3
2	103 Gopi	555	9000.00	3	4

DOS Ln 181, Col 1, Ch 6814 61 chars 2 rows. 10 msec

Type here to search

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries Delete Delete All

```
/*7th Query*/
select extract(month from req_date) as Req_month from gad;

/*8th Query*/
select * from staff where salary between 1000 and 4000;
select * from staff where salary in (select salary from staff where salary>1000);
select * from staff where salary not in(select salary from staff where salary>1500);
select * from staff where salary not between 1000 and 1500;

/*9th Query*/
update staff set emp_name='Naresh' where emp_id=101;
select emp_id,emp_name from staff;
```

Output pane

Data Output Explain Messages History

emp_id	emp_name
1	100 Ramesh
2	102 Rajesh
3	103 Gopi
4	101 Naresh

DOS Ln 185, Col 1, Ch 6923 90 chars 4 rows. 11 msec

Type here to search

OK

1004 12-11-2019

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries Delete Delete All

```
select * from staff where salary not between 1000 and 1500;

/*9th Query*/
update staff set emp_name='Naresh' where emp_id=101;
select emp_id,emp_name from staff;

/*10th Query*/
select item_name,price from inventory where price in(select price from inventory where price>1000);

/*11th Query*/
select * from inventory where exists(select * from staff where inventory.emp_id=staff.emp_id);
select * from inventory where not exists(select * from staff where inventory.emp_id=staff.emp_id);
select * from inventory where price = any(select price from inventory where price=1000);
select * from department where budget=all(select budget from department where budget=10000);
```

Output pane

Data Output Explain Messages History

item_name	price
1 TV	11000
2 LAPTOP	2000

DOS Ln 191, Col 1, Ch 7046 101 chars 2 rows. 12 msec

Type here to search

OK

1005 12-11-2019

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select * from staff where salary not between 1000 and 1500;

/*9th Query*/
update staff set emp_name='Naresh' where emp_id=101;
select emp_id,emp_name from staff;
```

Scratch pad

Output pane

Item_id	Item_condition	Item_name	Price	Emp_id
1	GOOD	LAPTOP	1000	100
2	GOOD	LAPTOP	2000	102

DOS Ln 194, Col 1, Ch 7160 96 chars 2 rows. 10 msec

Type here to search

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select * from staff where salary not between 1000 and 1500;

/*9th Query*/
update staff set emp_name='Naresh' where emp_id=101;
select emp_id,emp_name from staff;
```

Scratch pad

Output pane

Item_id	Item_condition	Item_name	Price	Emp_id
1	GOOD	TV	11000	
2	BAD	PROJECTOR	1000	

DOS Ln 195, Col 1, Ch 7260 100 chars 2 rows. 11 msec

Type here to search

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

select * from staff where salary not between 1000 and 1500;

/*9th Query*/
update staff set emp_name='Naresh' where emp_id=101;
select emp_id,emp_name from staff;
```

Scratch pad

Output pane

Data Output	Explain	Messages	History															
<table border="1"> <thead> <tr> <th>item_id</th> <th>item_condition</th> <th>item_name</th> <th>price</th> <th>emp_id</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>GOOD</td> <td>LAPTOP</td> <td>1000</td> <td>100</td> </tr> <tr> <td>2</td> <td>BAD</td> <td>PROJECTOR</td> <td>1000</td> <td></td> </tr> </tbody> </table>	item_id	item_condition	item_name	price	emp_id	1	GOOD	LAPTOP	1000	100	2	BAD	PROJECTOR	1000				
item_id	item_condition	item_name	price	emp_id														
1	GOOD	LAPTOP	1000	100														
2	BAD	PROJECTOR	1000															

DOS Ln 196, Col 1, Ch 7350 90 chars 2 rows. 11 msec

Type here to search

OK.

Query - postgres on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries

```

/*9th Query*/
update staff set emp_name='Naresh' where emp_id=101;
select emp_id,emp_name from staff;
```

Scratch pad

Output pane

Data Output	Explain	Messages	History									
<table border="1"> <thead> <tr> <th>dept_id</th> <th>dept_name</th> <th>budget</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>EE</td> <td>10000.00</td> </tr> <tr> <td>2</td> <td>EIE</td> <td>10000.00</td> </tr> </tbody> </table>	dept_id	dept_name	budget	1	EE	10000.00	2	EIE	10000.00			
dept_id	dept_name	budget										
1	EE	10000.00										
2	EIE	10000.00										

DOS Ln 197, Col 1, Ch 7444 94 chars 2 rows. 11 msec

Type here to search

OK.