

Creating DataBase

```
Username [postgres]: postgres
Password for user postgres:
create database dbfinserv;
```

Creating Table

```
create table employee(eid INT PRIMARY KEY NOT NULL, ename TEXT NOT
NULL, salary REAL);
```

```
CREATE TABLE
```

```
dbfinserv=# \d
```

```
      List of relations
```

Schema	Name	Type	Owner
public	employee	table	postgres

(1 row)

Connecting to Data Base

```
\c dbfinserv; #to connect the data base
```

```
\d employee; # description
```

```
select * from employee; #to view the table
```

```
insert into employee values (4, 'Vishnu', 9);
```

```
update employee set ename = 'uttej' where eid = 1;
```

```
update employee set salary = salary + 10 where salary > 15;
```

```
select upper (ename) from employee;
```

```
upper
```

```
-----
```

```
VISHNU
```

```
KSHITIJ
```

```
HARA
```

```
UTTEJ
```

```
DATA
```

```
(5 rows)
```

```
select concat (ename,'*',eid) from employee;
```

```
concat
```

```
-----
```

```
vishnu*4
```

```
kshitij*6
```

```
hara*2
```

```
uttej*1
```

```
data*3
```

```
(5 rows)
```

```
select concat (ename,' ',eid) from employee;
```

```
concat
```

```
-----
```

```

vishnu    4
kshitij   6
hara      2
uttej     1
data      3
(5 rows)

```

```

Select sum(salary) from employee;
sum
-----
109
(1 row)

```

```

Select count(*) from employee;
count
-----
5
(1 row)

```

```

select distinct(salary) from employee;
salary
-----
35
8
10
28
(4 rows)

```

```

select distinct(salary,eid) from employee;
row
-----
(8,4)
(10,6)
(28,1)
(28,2)
(35,3)
(5 rows)

```

```

select eid,ename from employee group by eid having salary > 10;
eid | ename
-----+-----
2 | hara
1 | uttej
3 | data
(3 rows)

```

```

update employee set salary = null where salary > 0;
UPDATE 5
dbfinserv=# select * from employee;
eid | ename | salary
-----+-----+-----
4 | vishnu |

```

```

6 | kshitij |
2 | hara    |
1 | uttej   |
3 | data    |
(5 rows)

```

Altering Table

```
alter table employee add column deptid int; #to add column
```

```
update employee set deptid = 101 where eid=2;
```

```
select * from employee;
```

eid	ename	salary	deptid
2	hara	19	101
6	kshitij	24	101
1	uttej	10	202
3	data	13	202
4	vishnu	18	303

```
select * from department;
```

deptid	deptname
101	java
202	python
303	php

(3 rows)

```
alter table department add constraint fk_id PRIMARY KEY(deptid);
#updating primary key
```

```
\d department;
```

Column	Type	Collation	Nullable	Default
deptid	integer		not null	
deptname	text			

Indexes:

Adding Foreign Key

```
alter table employee add FOREIGN KEY(deptid) REFERENCES
department(deptid);# to make foreign key
```

Joins

```
select eid, ename, salary from employee cross join department;
```

eid	ename	salary
2	hara	19
2	hara	19

2		hara		19
6		kshitij		24
6		kshitij		24
6		kshitij		24
1		uttej		10
1		uttej		10
1		uttej		10
3		data		13
3		data		13
3		data		13
4		vishnu		18
4		vishnu		18
4		vishnu		18

(15 rows)

```
dbfinserv=# select * from employee;
```

eid	ename	salary	deptid
-----+-----+-----+-----			
2	hara	19	101
6	kshitij	24	101
1	uttej	10	202
3	data	13	202
4	vishnu	18	303

(5 rows)

```
dbfinserv=# select * from department;
```

deptid	deptname
-----+-----	
101	java
202	python
303	php

(3 rows)

^

```
dbfinserv=# select a.eid, a.salary, b.deptname from employee a inner
join department b on a.deptid = b.deptid;
```

eid	salary	deptname
-----+-----+-----		
2	19	java
6	24	java
1	10	python
3	13	python
4	18	php

(5 rows)