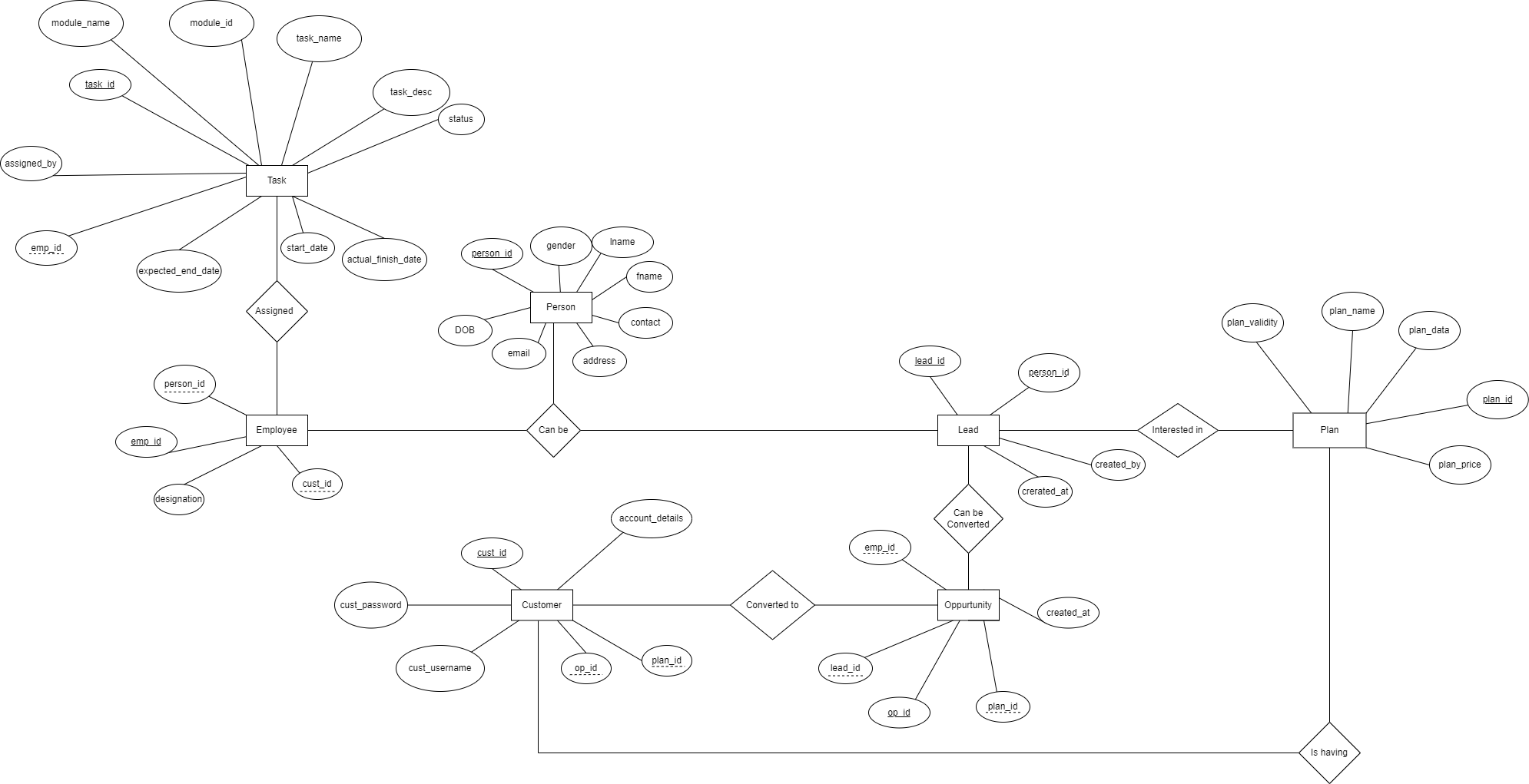
**CRM QUERY**

1. ERD diagram



1. Create Normalized Tables, Create database CRM and create tables , create Indexing, Use PK, FK, UK

create table person(

person\_id int primary key,

first\_name varchar(25) not null,

last\_name varchar(25) not null,

gender char(1) not null,

date\_of\_birth date,

email varchar(32),

contact\_no bigint not null,

address varchar(35)

);

create table lead(

lead\_id int primary key,

created\_at date not null,

person\_id int references person(person\_id)

);

create table plan(

plan\_id int primary key,

plan\_name varchar(20) not null,

plan\_validity varchar(30) not null,

plan\_data varchar(20) not null,

plan\_price char(15) not null

);

create table opportunity(

opportunity\_id int primary key,

created\_at date not null,

emp\_id int ,

lead\_id int references lead(lead\_id),

plan\_id int references plan(plan\_id)

);

create table customer(

customer\_id int primary key,

cust\_username varchar(25) not null,

cust\_password varchar(25) not null,

ac\_details varchar(20) not null,

opportunity\_id int references opportunity(opportunity\_id),

plan\_id int references plan(plan\_id)

);

create table employee(

emp\_id int primary key,

designation varchar(30) not null,

person\_id int references person(person\_id),

customer\_id int references customer(customer\_id)

);

create table task(

task\_id int primary key,

task\_name varchar(25) not null,

task\_desc varchar(25) not null,

task\_status varchar(20) not null,

start\_date date,

expected\_end\_date date,

actual\_end\_date date,

assigned\_by varchar(25) not null,

module\_id int not null,

module\_name varchar(20),

emp\_id int references employee(emp\_id)

);

select \* from person;

select \* from lead;

select \* from plan;

select \* from opportunity;

select \* from customer;

select \* from employee;

select \* from task;

1. Use Limit, Aggregrate Function, Joins, Use views , Query to Insert minimum 50 records lead the table.

INSERT INTO PERSON

insert into person values( 1, 'Sumant' , 'mulgaonkar', 'M', '2000-01-20','sumant@gmail.com', 9998388383 , 'Goa') ;

insert into person values( 2, 'Sameer' , 'Shaikh', 'M', '1991-11-15','sameer@gmail.com', 7263472827 , 'solapur') ;

insert into person values( 3, 'Mandar' , 'joshi', 'M', '1999-01-11','mandar@gmail.com', 9483657465 , 'tamil nadu') ;

insert into person values( 4, 'Suresh' , 'suthar', 'M', '1994-04-20','suresh@gmail.com', 8364536453 , 'rajasthan') ;

insert into person values( 5, 'Prajakta' , 'kelkar', 'F', '1999-01-05','prajakta@gmail.com', 9283746564 , 'pune') ;

insert into person values( 6, 'Pranath' , 'naik', 'M', '1999-08-10','pranath@gmail.com', 9998388386 , 'arambol') ;

insert into person values( 7, 'Sayali' , 'tamane', 'F', '1993-01-20','sayali@gmail.com', 9287374658 , 'nagpur') ;

insert into person values( 8, 'Aman' , 'kumar', 'M', '1997-02-22','aman@gmail.com', 9283745345 , 'bihar') ;

insert into person values( 9, 'Brinda' , 'chanchad', 'F', '2000-07-25','brinda@gmail.com', 9283745231 , 'gujrat') ;

insert into person values( 10, 'Shubangi' , 'pangare', 'F', '2002-12-31','shubangi@gmail.com', 9998128838 , 'pune') ;

INSERT INTO LEAD

insert into lead values (1,'2021-10-31', 3 );

insert into lead values (2,'2021-11-15', 4 );

insert into lead values (3,'2021-09-17', 5 );

insert into lead values (4,'2021-08-09', 6 );

insert into lead values (5,'2021-12-3', 7 );

insert into lead values (6,'2021-07-22', 8 );

INSERT INTO PLAN

insert into plan values(1, '50Mbps', '1 month', '180GB' , 399 );

insert into plan values(2, '100Mbps', '3 months', 'unlimited' , 399 );

insert into plan values(3, '20Mbps', '6 months', '900GB' , 699 );

insert into plan values(4, '200Mbps', '12 month', '12180GB' , 15999 );

insert into plan values(5, '150Mbps', '9 month', '6000GB' , 9999 );

INSERT INTO OPPORTUNITY

insert into opportunity values (1, '2021-09-20', 3, 2);

insert into opportunity values (2, '2021-08-15', 4, 1);

insert into opportunity values (3, '2021-12-10', 5, 4);

insert into opportunity values (4, '2021-07-25', 6, 5);

INSERT INTO CUSTOMER

insert into customer values (1, 'sayali998' , '12345', '1102928182', 3, 4 );

insert into customer values (2, 'aman818' , '123456', '1102998828', 4, 5 );

INSERT INTO EMPLOYEE

insert into employee values(1, 'Asstt Officer', 1, 2);

insert into employee values(2, 'Engineer', 2, 1);

INSERT INTO TASK

insert into task values(1, 'Installation', 'Installing new broadband',

'completed', '2021-07-26' ,'2021-08-30','2021-09-01', 'admin1', 011, 'INSTALL', '1');

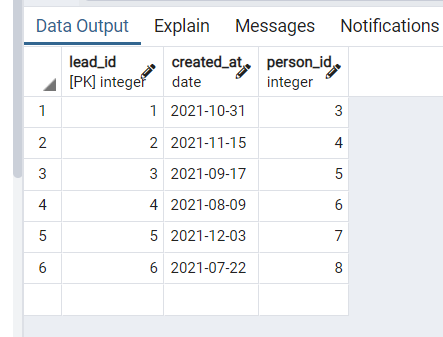
insert into task (task\_id, task\_name, task\_desc, task\_status, start\_date, expected\_end\_date, assigned\_by, module\_id, module\_name,emp\_id )

values(2, 'Plan Change', 'Change Plan to 150 mbps',

'pending', '2021-12-13' ,'2021-12-20', 'admin2', 021, 'PLAN CHNAGE', '2');

1. Query to get a list of all leads

select \* from lead;



1. Query to get all leads which converted to Opportunity

Select lead.lead\_id ,lead.created\_at, lead.person\_id, opportunity.opportunity\_id, opportunity.plan\_id

from lead

inner join opportunity on opportunity.lead\_id =lead.lead\_id ;

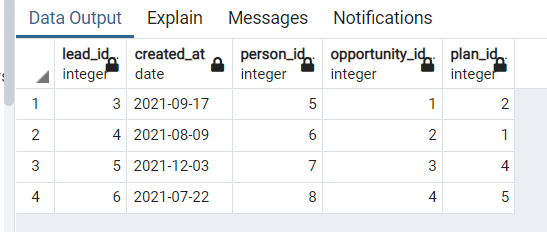
select le.lead\_id ,le.created\_at, le.person\_id, opp.opportunity\_id, opp.plan\_id

from lead le

join opportunity opp on opp.lead\_id =le.lead\_id ;

select le.lead\_id ,le.created\_at, le.person\_id, opp.opportunity\_id, opp.plan\_id

from lead le join opportunity opp using(lead\_id) ;



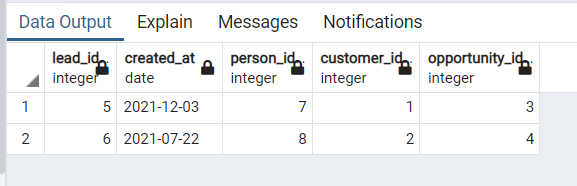
1. Query to get all leads converted to Account

select le.lead\_id ,le.created\_at, le.person\_id, cus.customer\_id, opp.opportunity\_id

from lead le

join opportunity opp ON opp.lead\_id = le.lead\_id

join customer cus ON cus.opportunity\_id = opp.opportunity\_id;



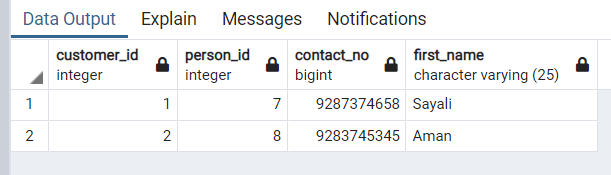
1. Query to get All contacts of an Account

select le.lead\_id ,le.created\_at, le.person\_id, cus.customer\_id, opp.opportunity\_id

from lead le

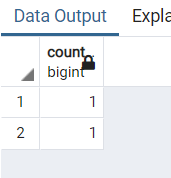
join opportunity opp ON opp.lead\_id = le.lead\_id

join customer cus ON cus.opportunity\_id = opp.opportunity\_id;



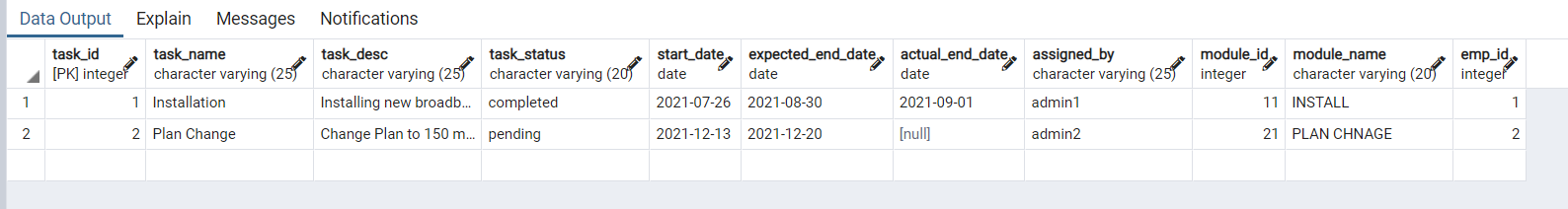
1. Query to get the count of task Module wise

select count(task\_id) from task group by module\_id;



1. Query to get All tasks of Leads, Opportunity, Account

select \* from task;



1. Query to get all accounts that do not have contacts

select cus.customer\_id , pe.person\_id, pe.contact\_no, pe.first\_name

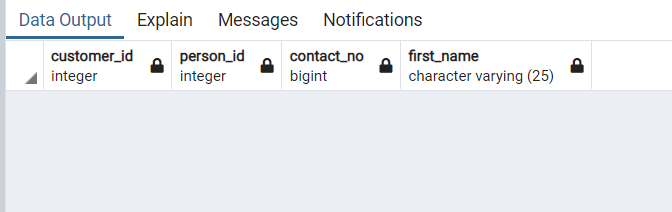
from customer cus

join opportunity opp ON opp.opportunity\_id = cus.opportunity\_id

join lead le ON le.lead\_id = opp.lead\_id

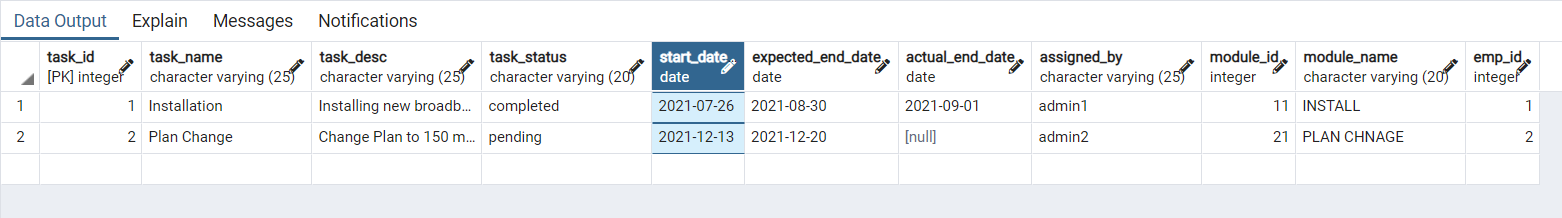
join person pe ON pe.person\_id= le.person\_id

where pe.contact\_no = 0;



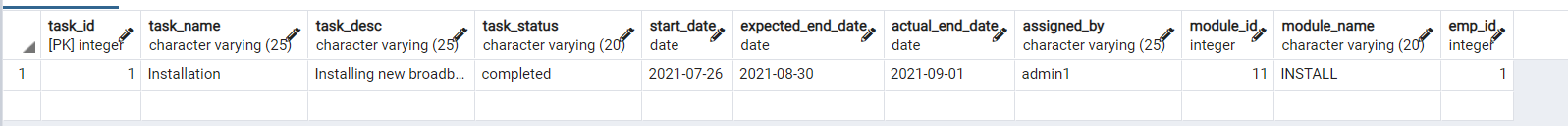
1. Query to get all task which is not created today.

select \* from task where start\_date != current\_date;



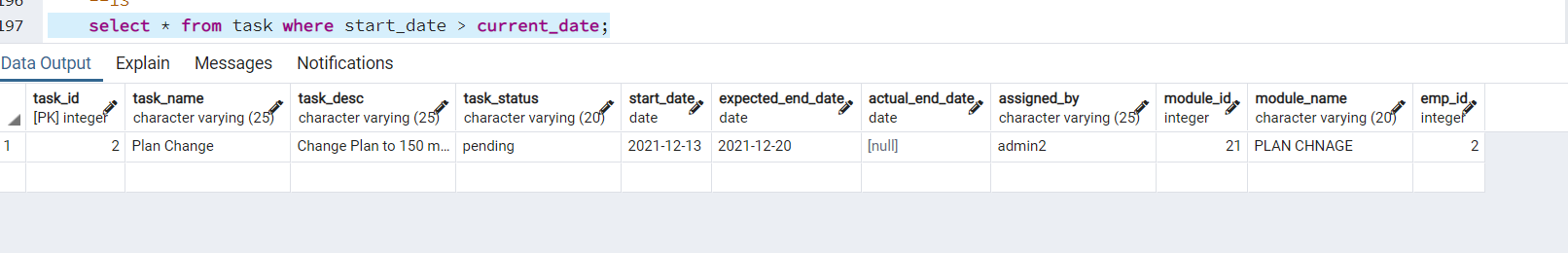
1. Query to get all the task completed

select \* from task where task\_status = 'completed';



1. Query to get all upcoming tasks

select \* from task where start\_date > current\_date;



1. Query to fetch account and its contacts with account id, account name

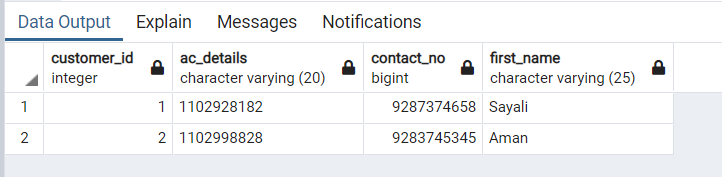
select cus.customer\_id , cus.ac\_details, pe.contact\_no, pe.first\_name

from customer cus

join opportunity opp ON opp.opportunity\_id = cus.opportunity\_id

join lead le ON le.lead\_id = opp.lead\_id

join person pe ON pe.person\_id= le.person\_id;



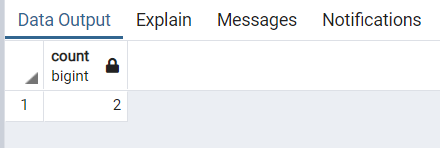
1. Query to get the count of leads which is converted to account

select count(le.lead\_id)

from lead le

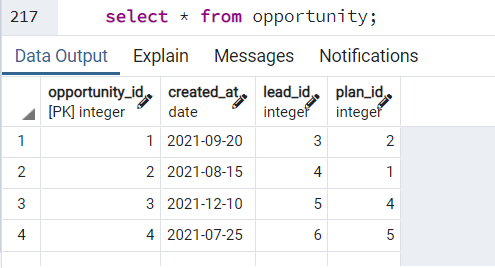
join opportunity opp ON opp.lead\_id = le.lead\_id

join customer cus ON cus.opportunity\_id = opp.opportunity\_id;



1. Query to get all Opportunity

select \* from opportunity;

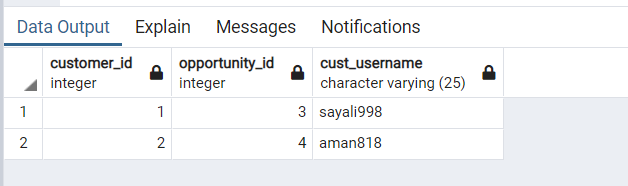


1. Query to get all Opportunity which converted to Account

select cus.customer\_id, opp.opportunity\_id, cus.cust\_username

from opportunity opp

join customer cus ON cus.opportunity\_id = opp.opportunity\_id;



1. Query to get count which plan is taken how many times

select count(plan\_id) from customer group by plan\_id;

