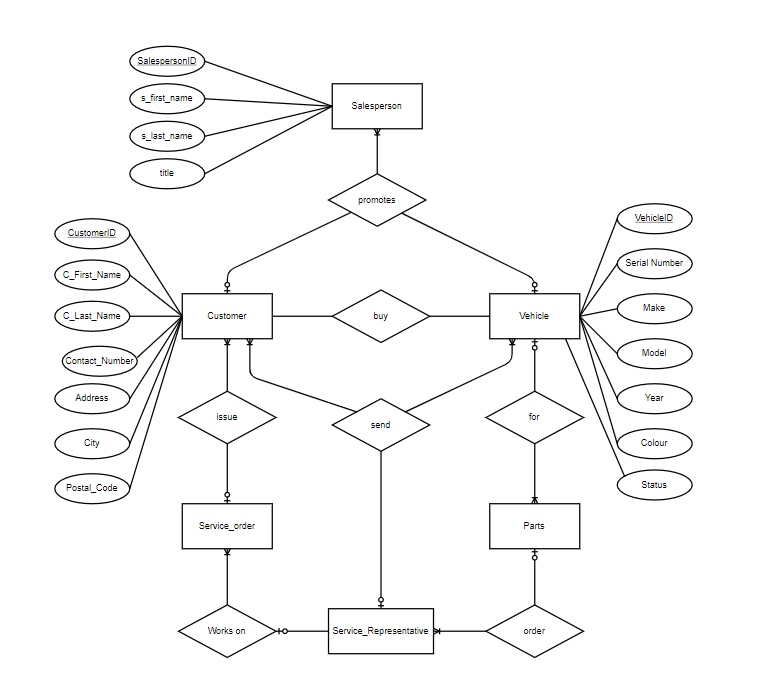
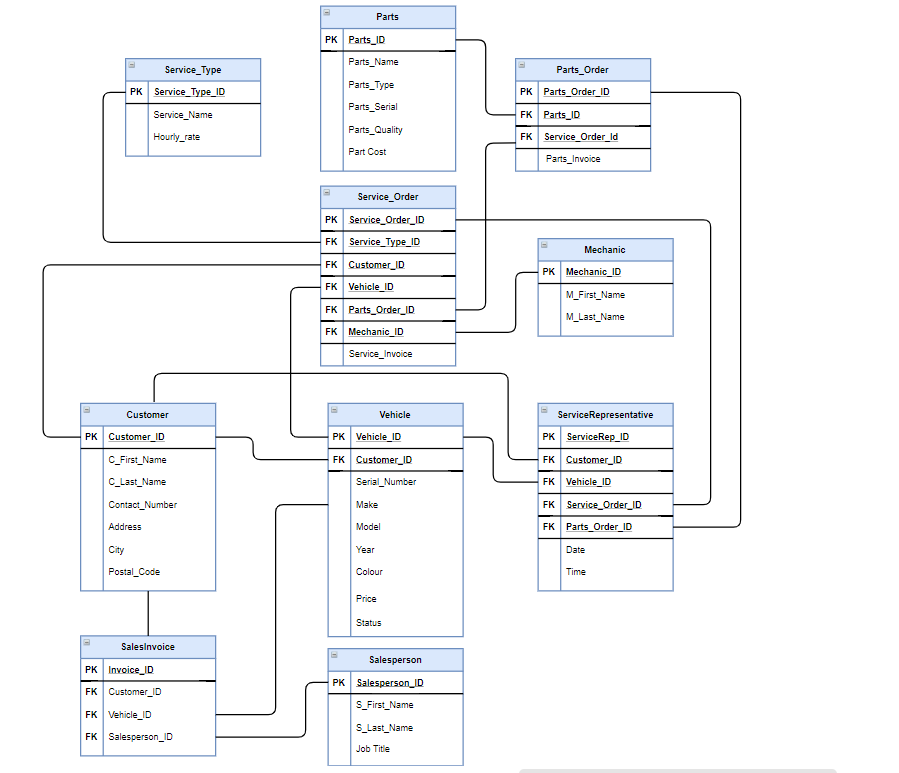
**ER Diagram:**

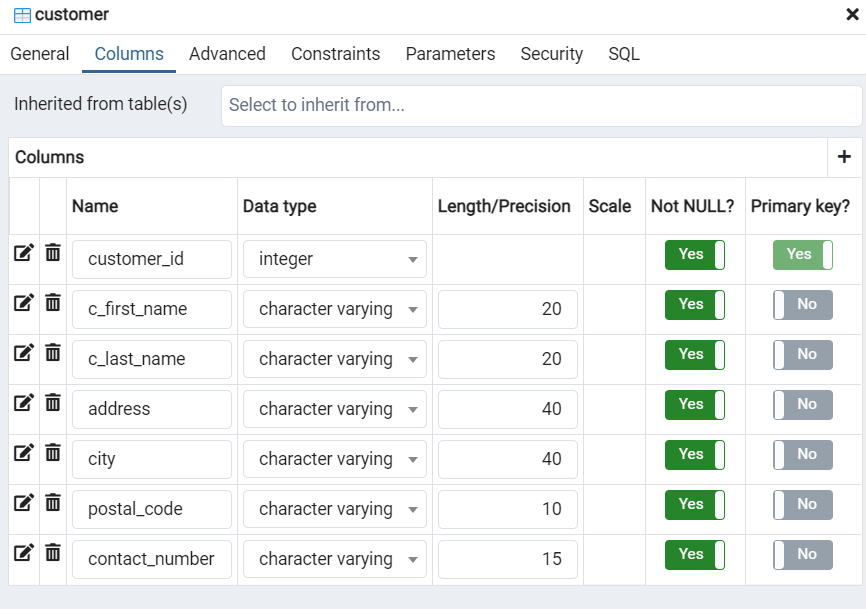


**Tables:**

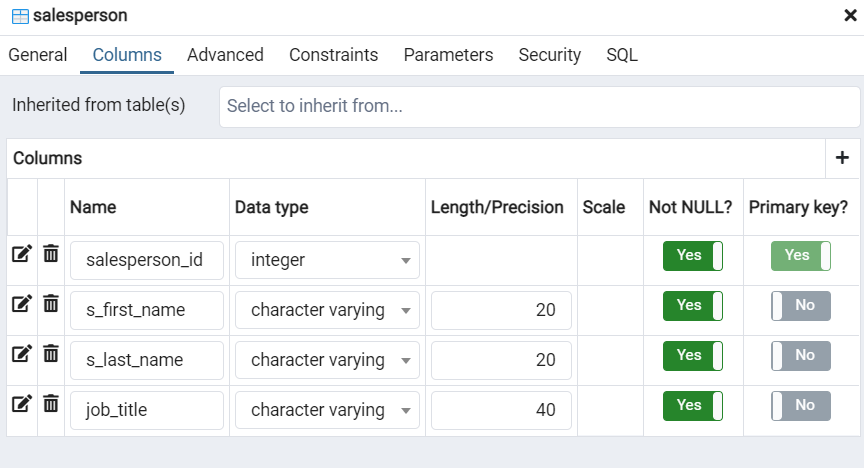


**Table Structure:**

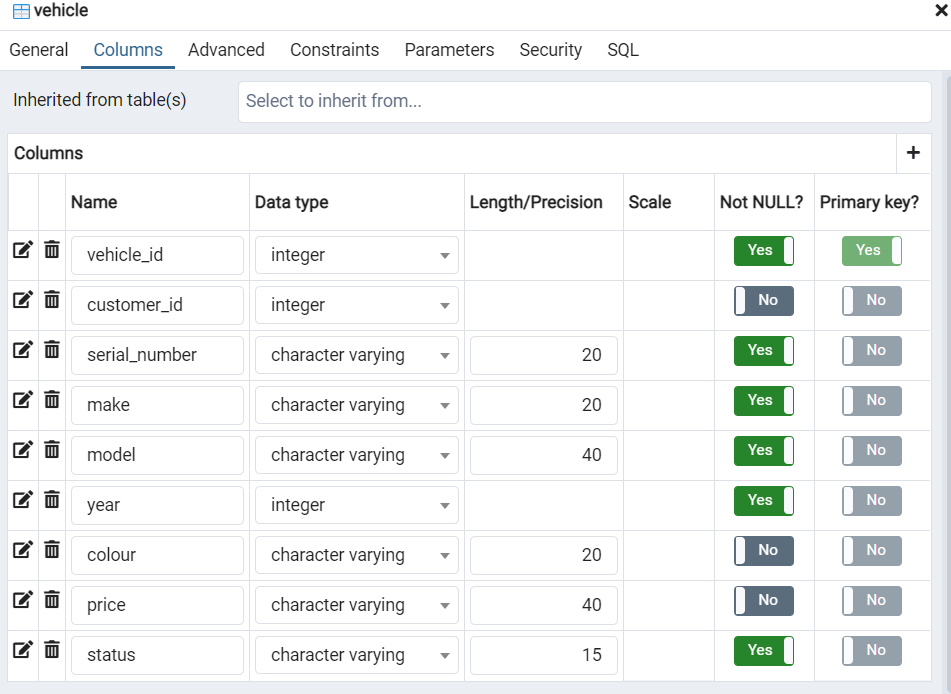
Customer Table



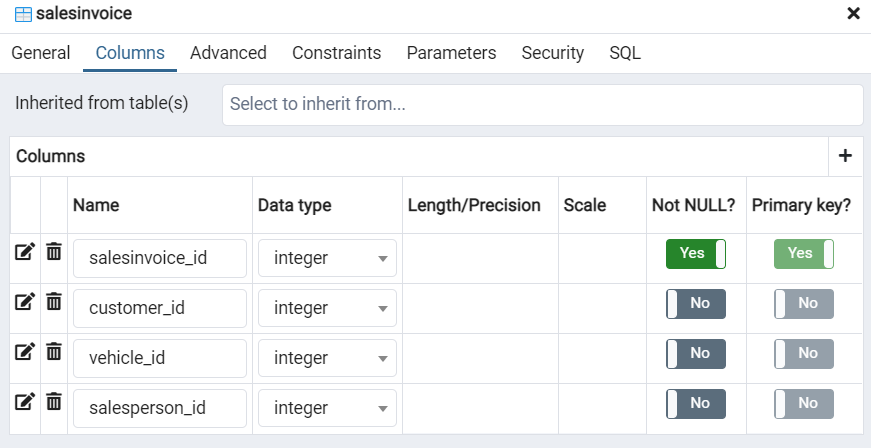
Sales Person Table



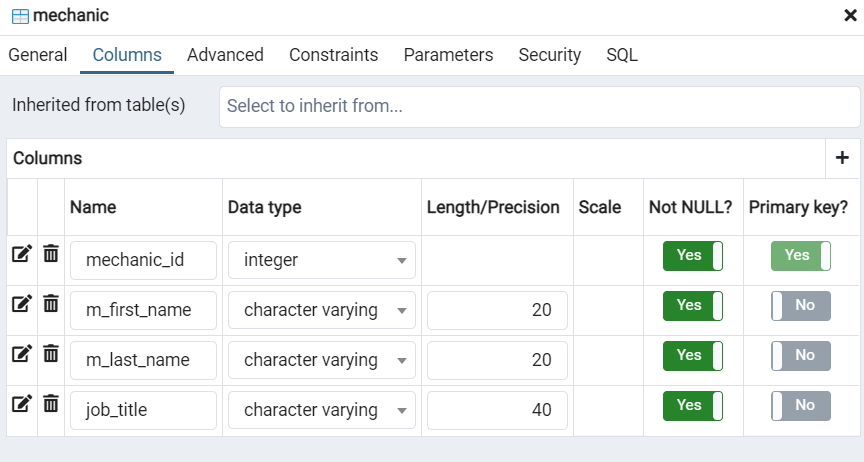
Vehicle Table



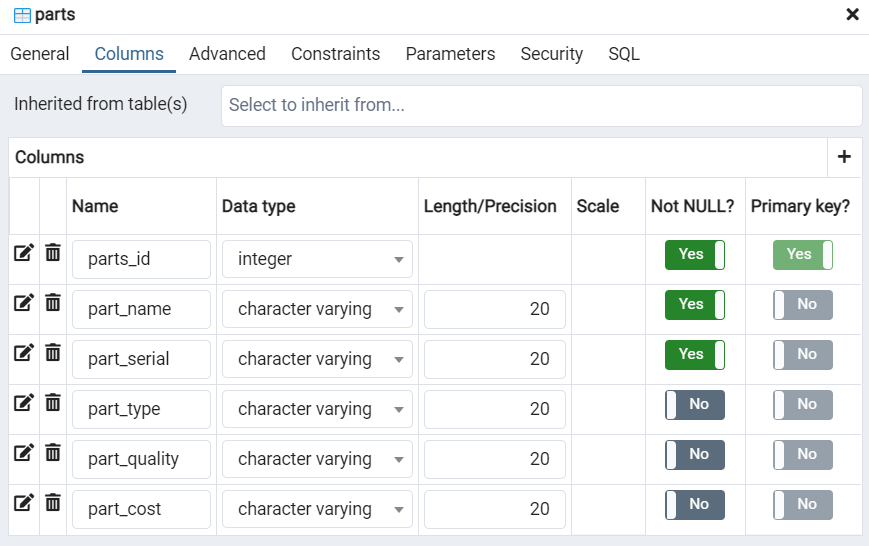
Sales Invoice Table



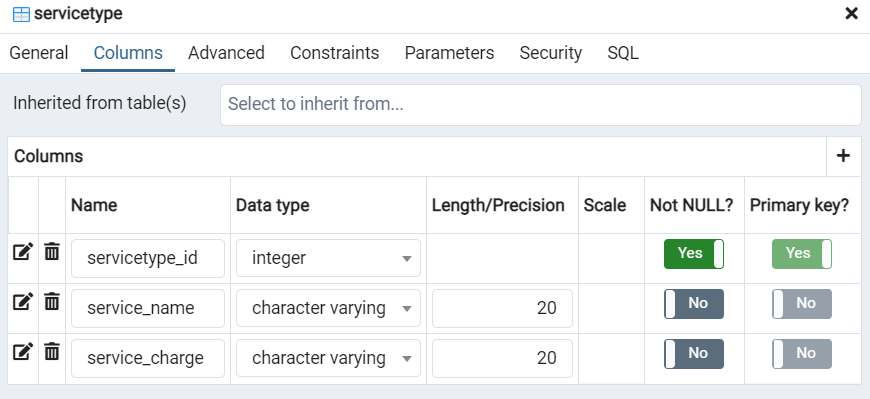
Mechanic Table



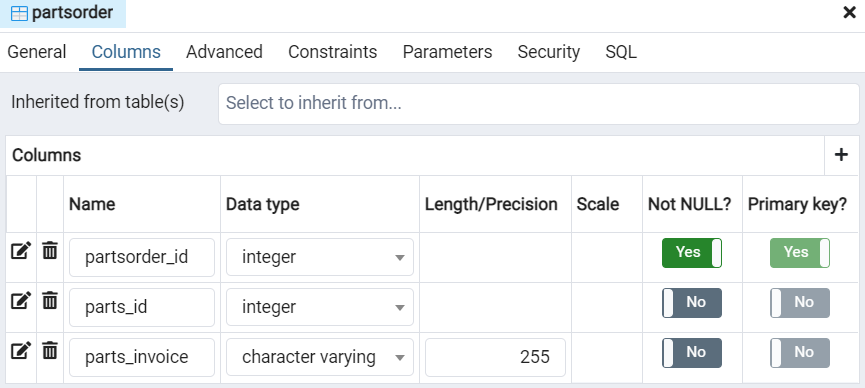
Parts Table



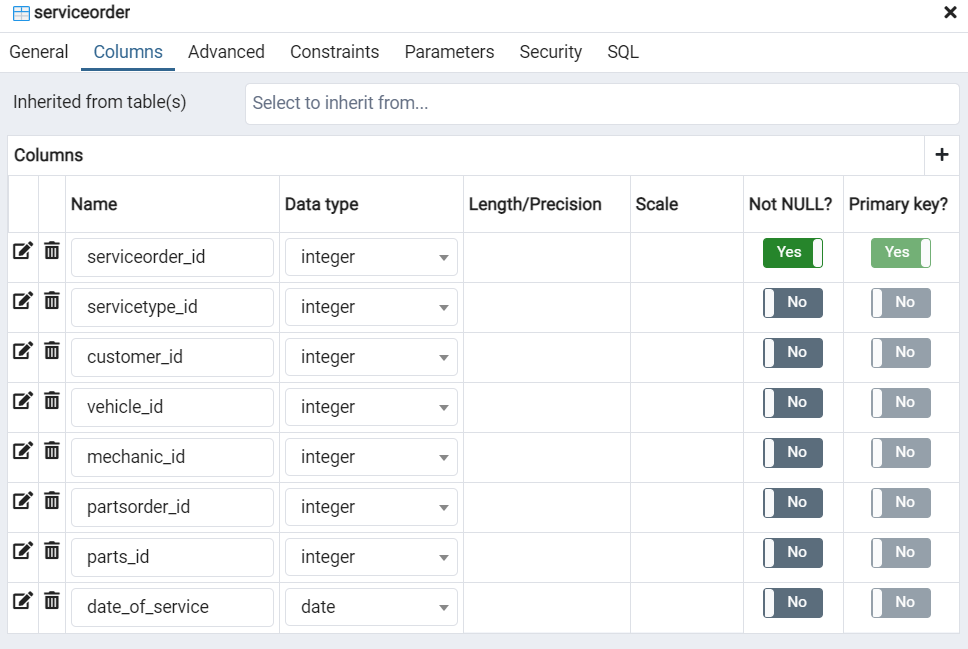
Service Type Table



Parts Order Table



Service Order Table



**Creating the tables:**

Customer Table

CREATE TABLE public.customer

(

customer\_id integer NOT NULL,

c\_first\_name character varying(20) COLLATE pg\_catalog."default" NOT NULL,

c\_last\_name character varying(20) COLLATE pg\_catalog."default" NOT NULL,

address character varying(40) COLLATE pg\_catalog."default" NOT NULL,

city character varying(40) COLLATE pg\_catalog."default" NOT NULL,

postal\_code character varying(10) COLLATE pg\_catalog."default" NOT NULL,

contact\_number character varying(15) COLLATE pg\_catalog."default" NOT NULL,

CONSTRAINT customer\_pkey PRIMARY KEY (customer\_id)

)

Sales Person Table

CREATE TABLE public.salesperson

(

salesperson\_id integer NOT NULL,

s\_first\_name character varying(20) COLLATE pg\_catalog."default" NOT NULL,

s\_last\_name character varying(20) COLLATE pg\_catalog."default" NOT NULL,

job\_title character varying(40) COLLATE pg\_catalog."default" NOT NULL,

CONSTRAINT salesperson\_pkey PRIMARY KEY (salesperson\_id)

)

Vehicle Table

CREATE TABLE public.vehicle

(

vehicle\_id integer NOT NULL,

customer\_id integer,

serial\_number character varying(20) COLLATE pg\_catalog."default" NOT NULL,

make character varying(20) COLLATE pg\_catalog."default" NOT NULL,

model character varying(40) COLLATE pg\_catalog."default" NOT NULL,

year integer NOT NULL,

colour character varying(20) COLLATE pg\_catalog."default",

price character varying(40) COLLATE pg\_catalog."default",

status character varying(15) COLLATE pg\_catalog."default" NOT NULL,

CONSTRAINT vehicle\_pkey PRIMARY KEY (vehicle\_id),

CONSTRAINT vehicle\_customer\_id\_fkey FOREIGN KEY (customer\_id)

REFERENCES public.customer (customer\_id) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE CASCADE

)

Sales Invoice Table

CREATE TABLE public.salesinvoice

(

salesinvoice\_id integer NOT NULL,

customer\_id integer,

vehicle\_id integer,

salesperson\_id integer,

CONSTRAINT salesinvoice\_pkey PRIMARY KEY (salesinvoice\_id),

CONSTRAINT salesinvoice\_customer\_id\_fkey FOREIGN KEY (customer\_id)

REFERENCES public.customer (customer\_id) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE CASCADE,

CONSTRAINT salesinvoice\_salesperson\_id\_fkey FOREIGN KEY (salesperson\_id)

REFERENCES public.salesperson (salesperson\_id) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE CASCADE,

CONSTRAINT salesinvoice\_vehicle\_id\_fkey FOREIGN KEY (vehicle\_id)

REFERENCES public.vehicle (vehicle\_id) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE CASCADE

)

Mechanic Table

CREATE TABLE public.mechanic

(

mechanic\_id integer NOT NULL,

m\_first\_name character varying(20) COLLATE pg\_catalog."default" NOT NULL,

m\_last\_name character varying(20) COLLATE pg\_catalog."default" NOT NULL,

job\_title character varying(40) COLLATE pg\_catalog."default" NOT NULL,

CONSTRAINT mechanic\_pkey PRIMARY KEY (mechanic\_id)

)

Parts Table

CREATE TABLE public.parts

(

parts\_id integer NOT NULL,

part\_name character varying(20) COLLATE pg\_catalog."default" NOT NULL,

part\_serial character varying(20) COLLATE pg\_catalog."default" NOT NULL,

part\_type character varying(20) COLLATE pg\_catalog."default",

part\_quality character varying(20) COLLATE pg\_catalog."default",

part\_cost character varying(20) COLLATE pg\_catalog."default",

CONSTRAINT parts\_pkey PRIMARY KEY (parts\_id)

)

Service Type Table

CREATE TABLE public.servicetype

(

servicetype\_id integer NOT NULL,

service\_name character varying(20) COLLATE pg\_catalog."default",

service\_charge character varying(20) COLLATE pg\_catalog."default",

CONSTRAINT servicetype\_pkey PRIMARY KEY (servicetype\_id)

)

Parts Order Table

CREATE TABLE public.partsorder

(

partsorder\_id integer NOT NULL,

parts\_id integer,

parts\_invoice character varying(255) COLLATE pg\_catalog."default",

CONSTRAINT partsorder\_pkey PRIMARY KEY (partsorder\_id),

CONSTRAINT partsorder\_parts\_id\_fkey FOREIGN KEY (parts\_id)

REFERENCES public.parts (parts\_id) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE CASCADE

)

Service Order Table

CREATE TABLE public.serviceorder

(

serviceorder\_id integer NOT NULL,

servicetype\_id integer,

customer\_id integer,

vehicle\_id integer,

mechanic\_id integer,

partsorder\_id integer,

parts\_id integer,

date\_of\_service date,

CONSTRAINT serviceorder\_pkey PRIMARY KEY (serviceorder\_id),

CONSTRAINT serviceorder\_customer\_id\_fkey FOREIGN KEY (customer\_id)

REFERENCES public.customer (customer\_id) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE CASCADE,

CONSTRAINT serviceorder\_mechanic\_id\_fkey FOREIGN KEY (mechanic\_id)

REFERENCES public.mechanic (mechanic\_id) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE CASCADE,

CONSTRAINT serviceorder\_parts\_id\_fkey FOREIGN KEY (parts\_id)

REFERENCES public.parts (parts\_id) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE CASCADE,

CONSTRAINT serviceorder\_partsorder\_id\_fkey FOREIGN KEY (partsorder\_id)

REFERENCES public.partsorder (partsorder\_id) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE CASCADE,

CONSTRAINT serviceorder\_servicetype\_id\_fkey FOREIGN KEY (servicetype\_id)

REFERENCES public.servicetype (servicetype\_id) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE CASCADE,

CONSTRAINT serviceorder\_vehicle\_id\_fkey FOREIGN KEY (vehicle\_id)

REFERENCES public.vehicle (vehicle\_id) MATCH SIMPLE

ON UPDATE NO ACTION

ON DELETE CASCADE

)

**Note:** *For SQL used, please refer to the Text file provided.*

**Select Statements:**

Show which vehicle is brought by the customer bought from which sales representative.

/\* select statement to show which customer brought which vehicle via which sales representative\*/

select

concat(customer.c\_first\_name,' ', customer.c\_last\_name) as customer\_name,

vehicle.make,

vehicle.model,

vehicle.price,

concat(salesperson.s\_first\_name, ' ', salesperson.s\_last\_name) as salesperson\_name

from customer

join salesinvoice

on customer.customer\_id = salesinvoice.customer\_id

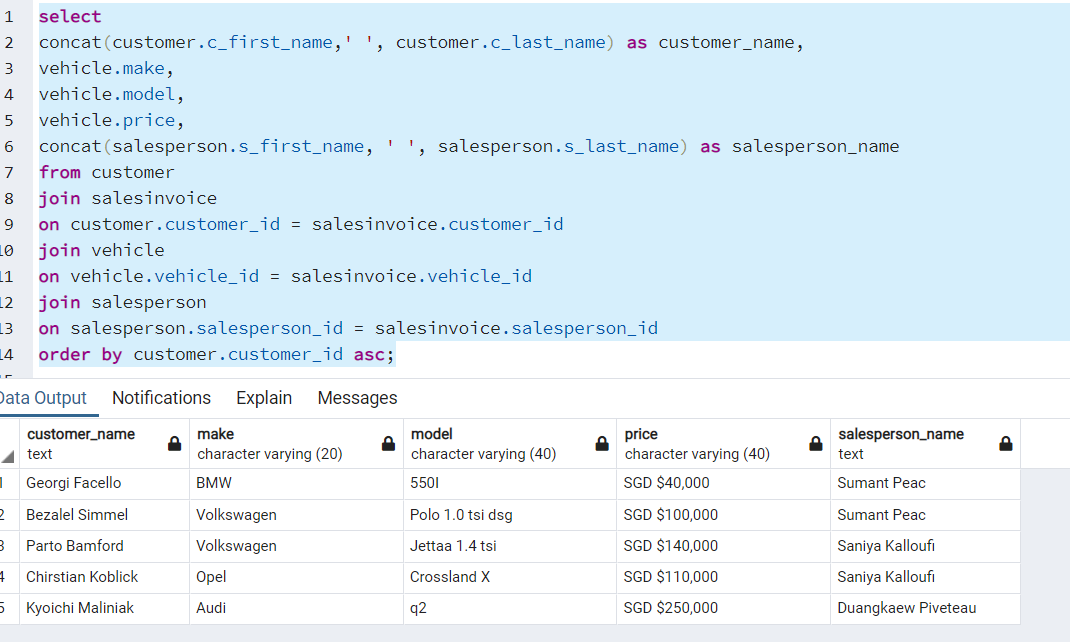
join vehicle

on vehicle.vehicle\_id = salesinvoice.vehicle\_id

join salesperson

on salesperson.salesperson\_id = salesinvoice.salesperson\_id

order by customer.customer\_id asc;



Show the single latest service record of servicing done by the customer

/\* select statement to show the single latest service record of servicing done by the customer \*/

select

concat(customer.c\_first\_name,' ', customer.c\_last\_name) as customer\_name,

vehicle.make,

vehicle.model,

servicetype.service\_name,

concat(mechanic.m\_first\_name,' ', mechanic.m\_last\_name) as mechanic\_name,

serviceorder.date\_of\_service

from customer

join serviceorder

on customer.customer\_id = serviceorder.customer\_id

join vehicle

on vehicle.vehicle\_id = serviceorder.vehicle\_id

join servicetype

on servicetype.servicetype\_id = serviceorder.servicetype\_id

join mechanic

on mechanic.mechanic\_id = serviceorder.mechanic\_id

join partsorder

on partsorder.partsorder\_id = serviceorder.partsorder\_id

join parts

on parts.parts\_id = serviceorder.parts\_id

group by customer\_name, vehicle.make,vehicle.model,servicetype.service\_name,mechanic\_name,serviceorder.date\_of\_service

order by serviceorder.date\_of\_service desc

LIMIT 1;

