**VEHICLE TRAFFIC MANAGEMENT SYSTEM**

**Vehicle Traffic Management DataBase:**

user(user\_id,fname,lname,email,phoneno)

vehicle\_info(vehicle\_id,user\_id,description,plate\_number,category\_id)

vehicle\_category(category\_id,categoryname,user\_id)

vehicle\_owner(vehicle\_owner\_id,ownername,phone,email,gender,age,vehicle\_id)

parking\_slot(slot\_id,parking\_slot\_number,parking\_slot\_status,user\_id)

booking(booking\_id,slot\_id,booking\_status,vehicle\_id,vehicle\_info,booking\_duration)

payment(payment\_id,booking\_id,reference\_number,customer\_id,amount\_paid,amount\_due,vehicle\_owner\_id)

**CREATION OF TABLES:**

1)create table user(user\_id int primary key,

fname varchar(20),

lname varchar(20),

email varchar(20),

phoneno int);

2) create table vehicle\_info(vehicle\_id int primary key,

user\_id int,

description varchar(20),

plate\_number varchar(20));

3) create table vehicle\_category(category\_id int primary key,

categoryname varchar(20),

user\_id references user(user\_id));

\*)alter table vehicle\_info

add category\_id references vehicle\_category(category\_id) on delete set null ;

4) create table vehicle\_owner(vehicle\_owner\_id int primary key,

ownername varchar(20),

phone varchar(20),

email varchar(20),

gender varchar(20),

age int,

vehicle\_id references vehicle\_info(vehicle\_id));

5) create table parking\_slot(slot\_id int primary key,

parking\_slot\_number int,

parking\_slot\_status int,

user\_id references user(user\_id));

6)create table booking(booking\_id int primary key,

slot\_id references parking\_slot(slot\_id),

booking\_status varchar(20),

vehicle\_id references vehicle\_info(vehicle\_id),

booking\_duration varchar(20));

7) create table payment(payment\_id int primary key,

booking\_id references booking(booking\_id),

reference\_number varchar(20),

customer\_id int,

amount\_paid int,

amount\_due int,

vehicle\_owner\_id references vehicle\_owner(vehicle\_owner\_id));

**INSERTION OF VALUES INTO TABLES:**

1)insert into user values(1,'adya','palled','adya@gmail.com',9845612345);

insert into user values(2,'anagha','ravi','ravi@gmail.com',8765901237);

insert into user values(3,'abhay','scott','abhay@gmail.com',5638282726);

insert into user values(4,'yuva','raj','raj@gmail.com',1234567890);

insert into user values(5,'sana','sri','sana@gmail.com',9876543210);

2) insert into vehicle\_info(vehicle\_id,user\_id,description,plate\_number)values(11,1,'4\_wheels','KA316');

insert into vehicle\_info(vehicle\_id,user\_id,description,plate\_number)values(12,2,'2\_wheels','BLR456');

insert into vehicle\_info(vehicle\_id,user\_id,description,plate\_number)values(13,3,'6\_wheels','GUR678');

insert into vehicle\_info(vehicle\_id,user\_id,description,plate\_number)values(14,4,'8\_wheels','MLR345');

insert into vehicle\_info(vehicle\_id,user\_id,description,plate\_number)values(15,5,'3\_wheels','MAN123');

3) insert into vehicle\_category values(101,'car',1);

insert into vehicle\_category values(102,'bike',2);

insert into vehicle\_category values(103,'truck',3);

insert into vehicle\_category values(104,'bus',4);

insert into vehicle\_category values(105,'auto',5);

update vehicle\_info set category\_id=101 where vehicle\_id=11;

update vehicle\_info set category\_id=102 where vehicle\_id=12;

update vehicle\_info set category\_id=103 where vehicle\_id=13;

update vehicle\_info set category\_id=104 where vehicle\_id=14;

update vehicle\_info set category\_id=105 where vehicle\_id=15;

4) insert into vehicle\_owner values(1,'adya',1234567890,'adya@gmail.com','f',12,11);

insert into vehicle\_owner values(2,'anagha',9876543210,'anagha@gmail.com','f',23,12);

insert into vehicle\_owner values(3,'abhay',6543218907,'abhay@gmail.com','m',32,13);

insert into vehicle\_owner values(4,'yuva',3214569807,'yuva@gmail.com','m',18,14);

insert into vehicle\_owner values(5,'sana','1987652397','sana@gmail.com','f',38,15);

5)insert into parking\_slot values(21,2,0,1);

insert into parking\_slot values(22,3,1,1);

insert into parking\_slot values(23,4,0,2);

insert into parking\_slot values(24,5,2,4);

insert into parking\_slot values(25,6,1,2);

6)insert into booking values(31,21,'0\_processing',11,'1\_hour');

insert into booking values(32,22,'1\_approved',12,'2\_hour');

insert into booking values(33,23,'2\_cancelled',13,'3\_hour');

insert into booking values(34,24,'3\_rejected',14,'1\_hour');

insert into booking values(35,25,'1\_approved',11,'1\_hour');

7)insert into payment values(501,31,'a11',01,500,'100',1);

insert into payment values(502,32,'a22',02,400,200,2);

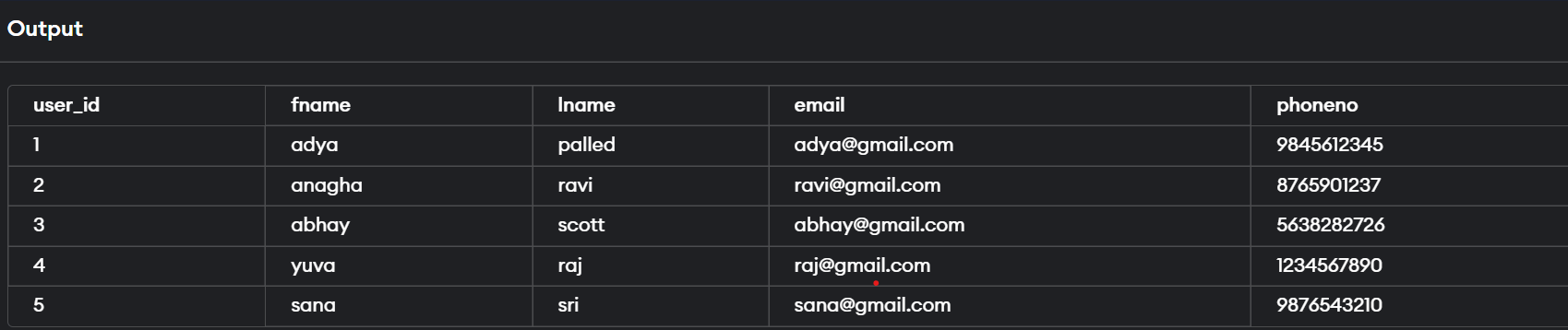
insert into payment values(503,33,'a33',03,200,400,3);

insert into payment values(504,34,'a44',04,300,300,4);

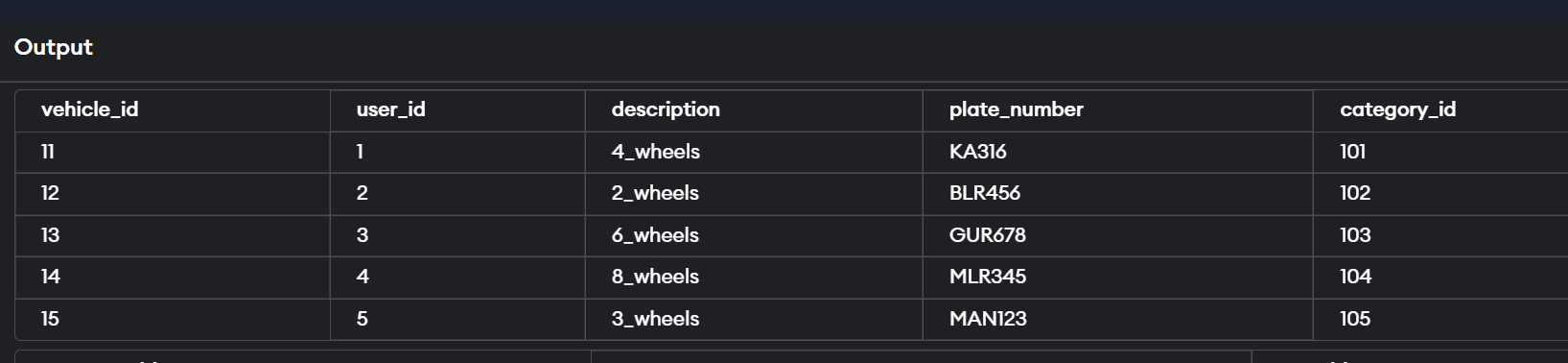
insert into payment values(505,35,'a55',05,500,400,5);

**TABLES WITH TUPLE VALUES**

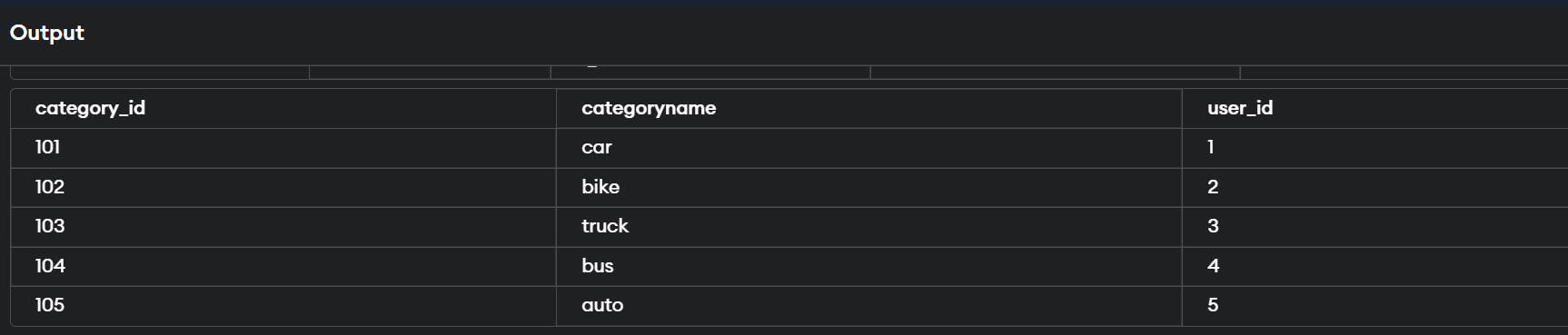
1. **select \* from user;**

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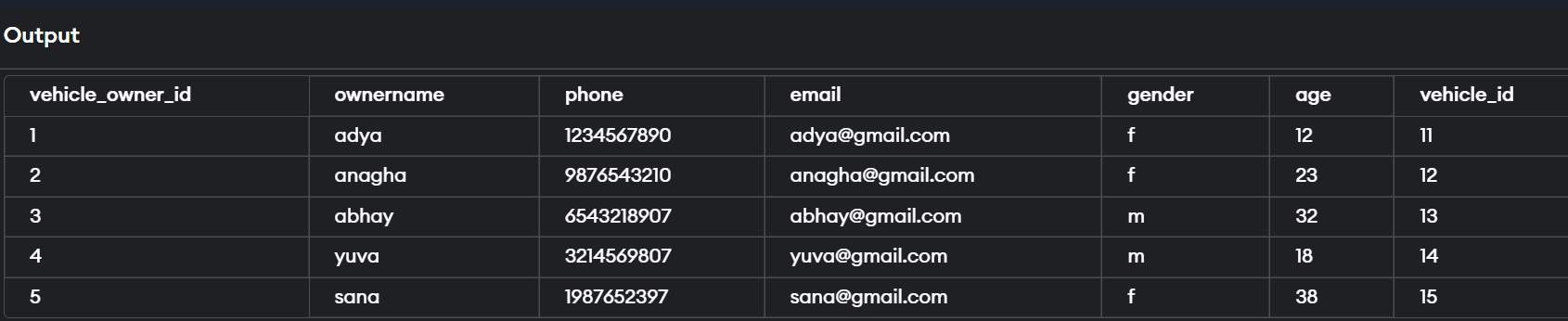
2)**select \* from vehicle\_info;**



3)**select \* from vehicle\_category;**



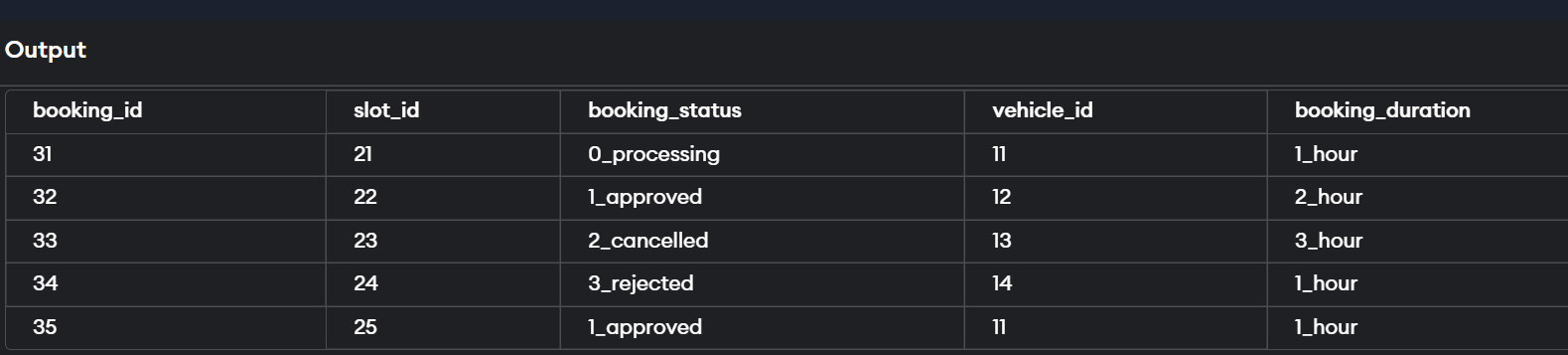
4)select \* from vehicle\_owner;



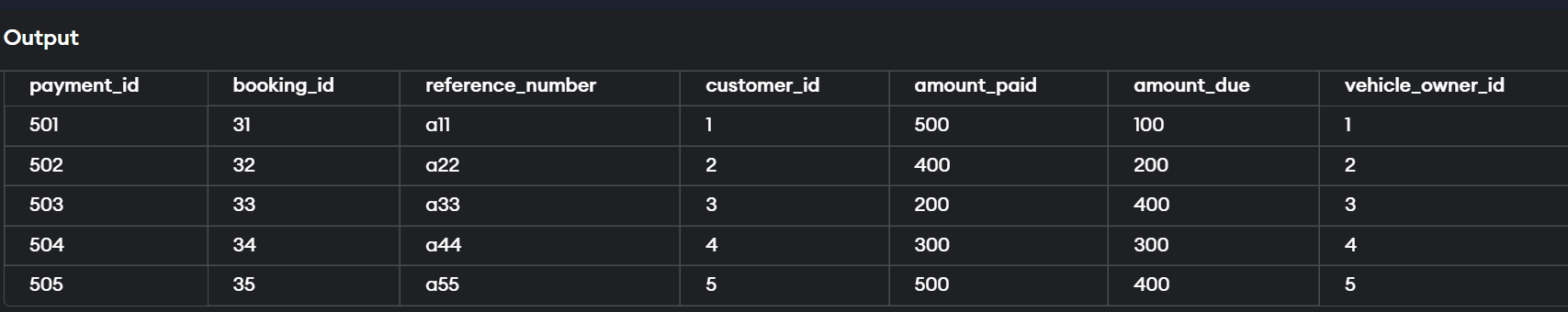
5)**select \* from parking\_slot;**



6)**select \* from booking;**



7) **select \* from payment;**



**QUERIES:**

1)**Retrieve the vehicle owner name,vehicle id,payment information who has the payment due.**

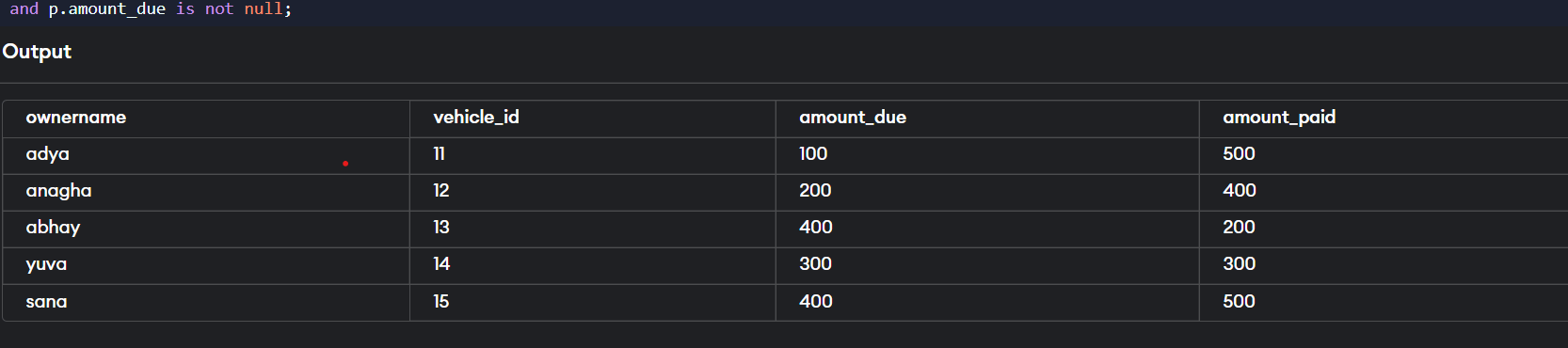
select distinct vo.ownername,vo.vehicle\_id,p.amount\_due,p.amount\_paid

from vehicle\_owner vo,payment p,vehicle\_info vi

where vo.vehicle\_owner\_id=p.vehicle\_owner\_id

and vo.vehicle\_id=vi.vehicle\_id

and p.amount\_due is not null;



2)**Retrieve the information of vehicles which has three wheels**

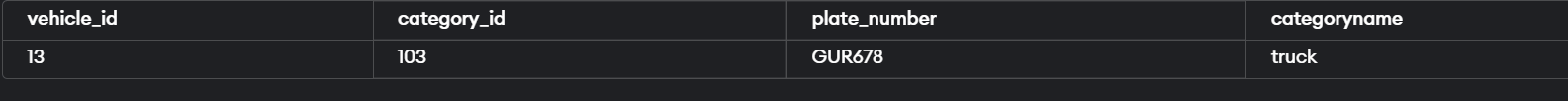
select vi.vehicle\_id,vi.category\_id,vi.plate\_number,vc.categoryname

from vehicle\_info vi,vehicle\_category vc

where vc.category\_id=vi.category\_id

and vc.category\_id=103;

**output:**



3)**Retrieve the owner name of the vehicles whose vehicle owner age is greater than 28**

select ownername from vehicle\_owner

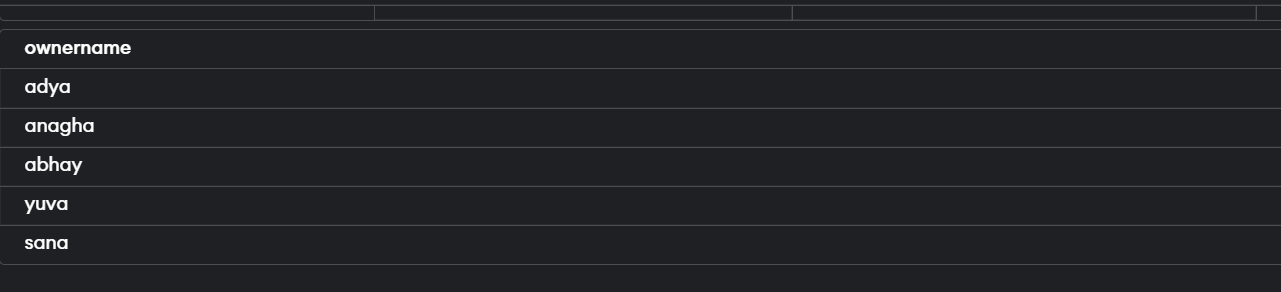
where(select count(\*)

from vehicle\_owner

where age>28

group by age);

**output:**

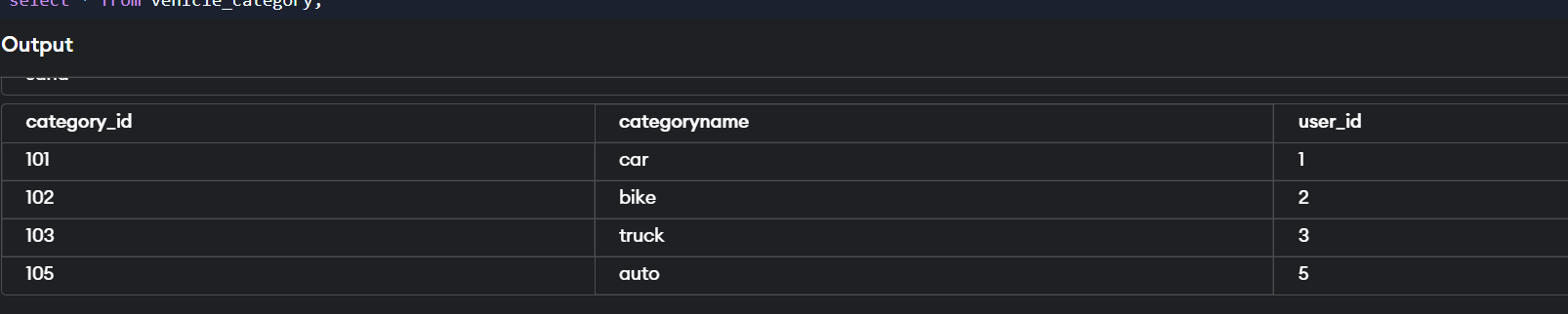


4)**Delete details from vehicle\_category table where category\_id=104**

delete from vehicle\_category

where category\_id=104;

select \* from vehicle\_category;



5)**Create view by using tables user,vehicle\_owner,vehicle\_info.**

create view info as

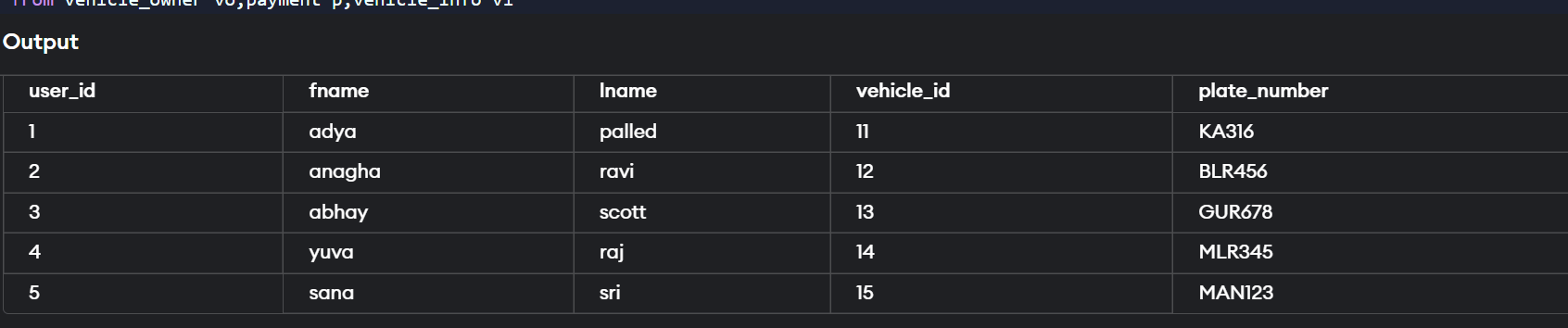
select u.user\_id,u.fname,u.lname,vi.vehicle\_id,vi.plate\_number

from user u,vehicle\_owner vo,vehicle\_info vi

where u.user\_id=vi.user\_id

and vi.vehicle\_id=vo.vehicle\_id;

select \* from info;



6)**Create Assertion if there are no slots available for parking.**

create assertion slot

CHECK(select \* from parking\_slot where parking\_slot\_status=1 or parking\_slot\_status=2);

Select \* from slot;

