American International University- Bangladesh

Summer2019-2020

Project Report

Group Name: MUSE

Advance Database Management System

Project Title: **Car Shop Management System**
Section: **A**

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System Summary

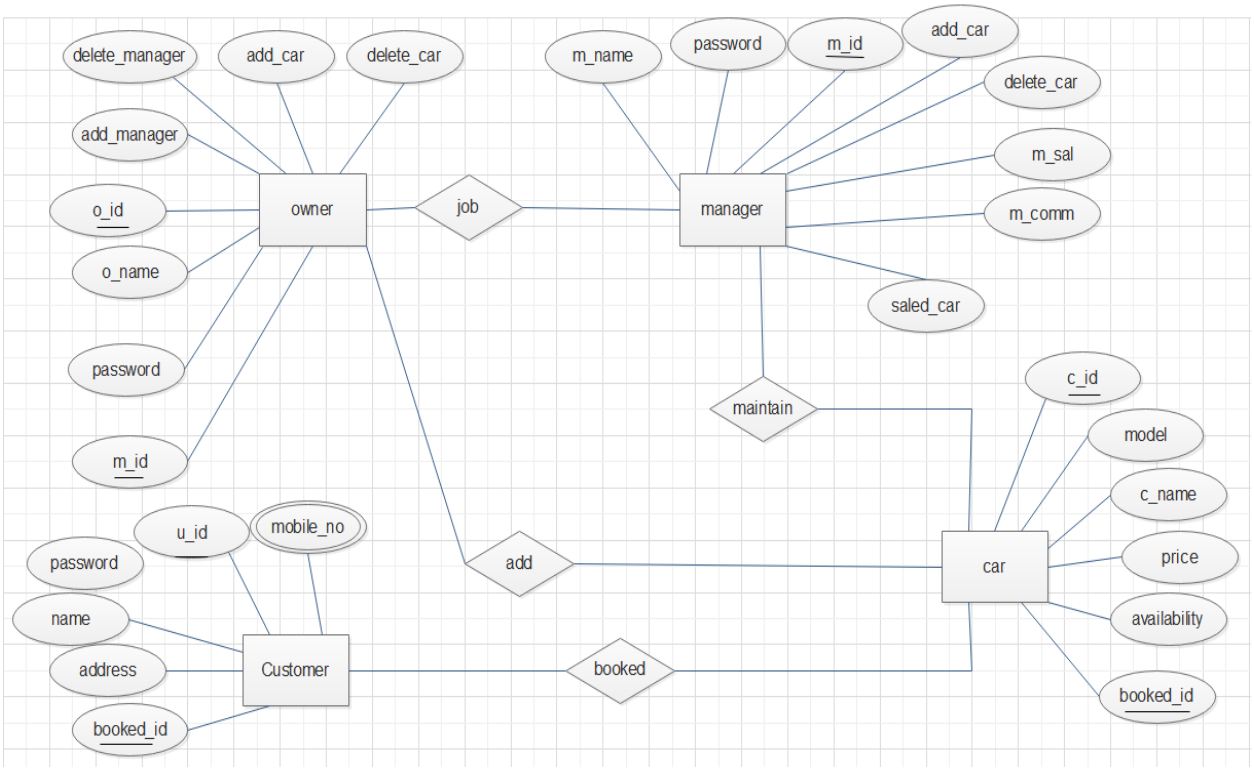
Introduction:

The “Car Shop Management System” has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and, in some cases, reduce the hardships faced by this existing system. Moreover, this system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

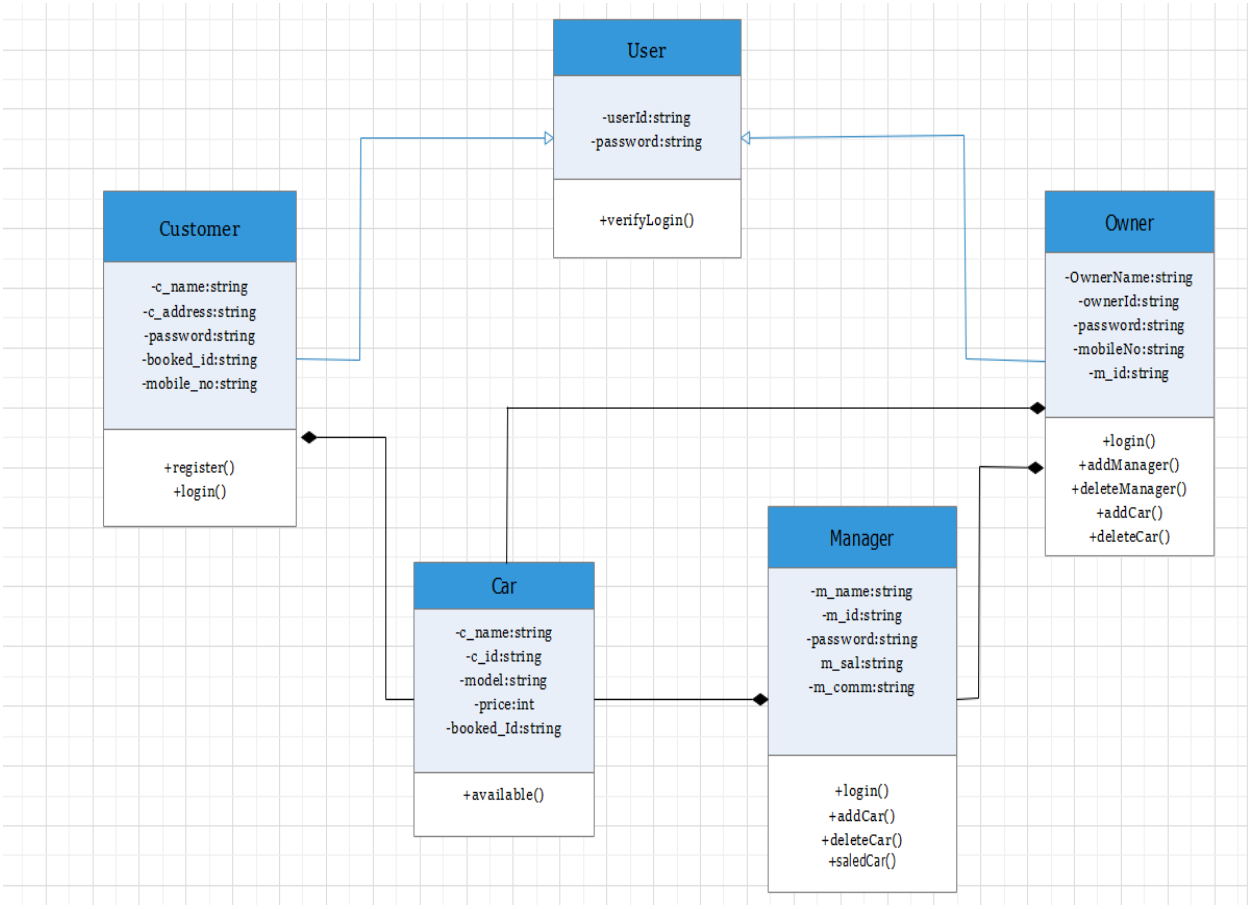
Project Proposal:

The purpose of the car shop management system is to automate the existing manual system by the help of computerized equipment and full-fledged computer software, fulfilling their requirements, so their valuable data can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with.
The main objective of the project on car shop management system is to manage the details of car, customer, payment order. It manages all the information about the car. The purpose of the project is to build an application program to reduce the manual work for managing the car.
Here are three types of user – owner, manager, customer.
Manager can add car, delete car and sell car. Owner can also do that, but the main work is to maintain the manager. User can search any car; they can show everything and can booked a car and can buy it.

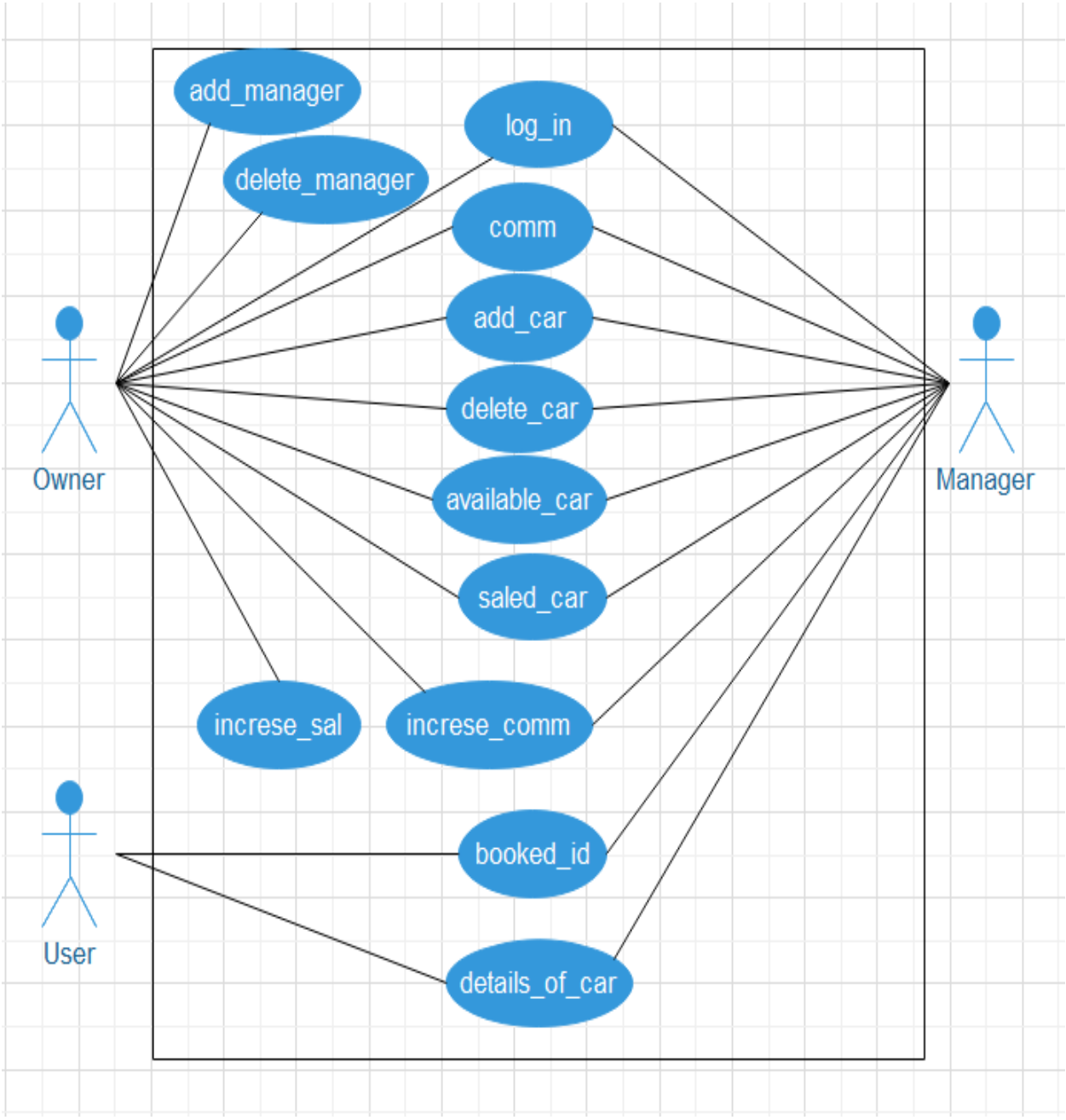
ER Diagram


delete_manager
add_car
delete_car
add_manager
o_id
o_name
password
m_id
owner
job
m_name
password
m_id
add_car
delete_car
m_sal
m_comm
saled_car
manager
maintain
c_id
model
c_name
price
availability
booked_id
car
u_id
mobile_no
password
name
address
booked_id
Customer
add
booked

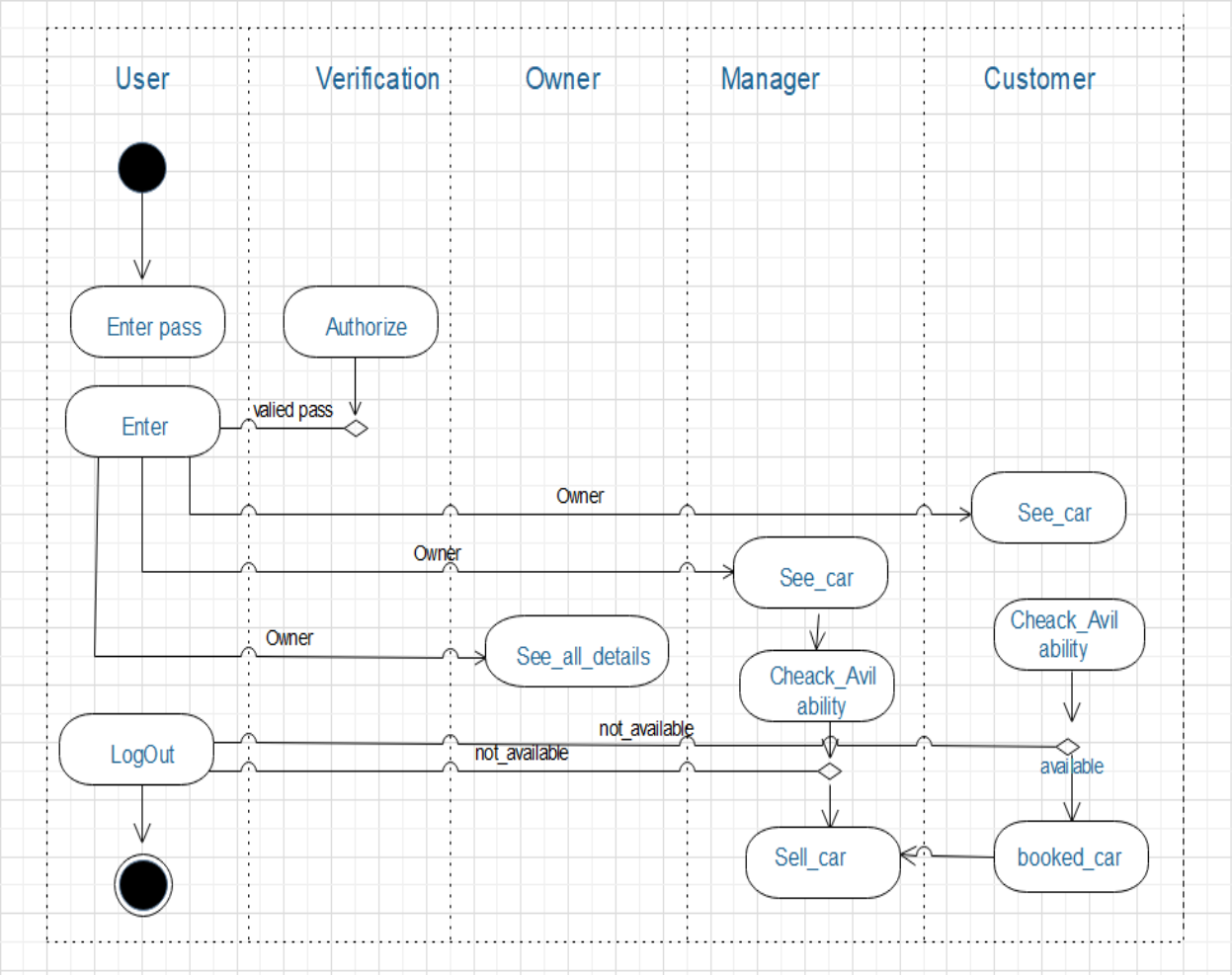
Class Diagram



Use Case Diagram



Activity Diagram



Schema Diagram

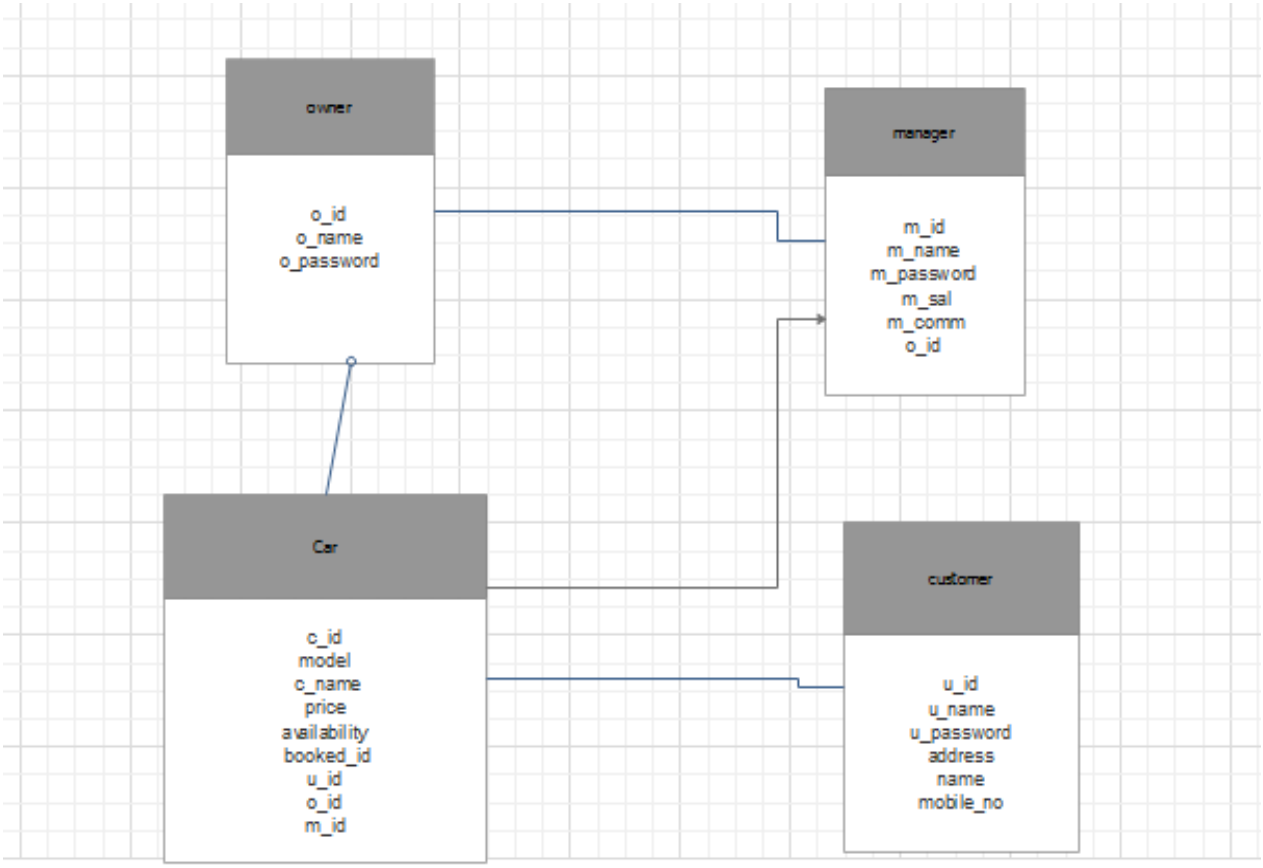


Table Creation

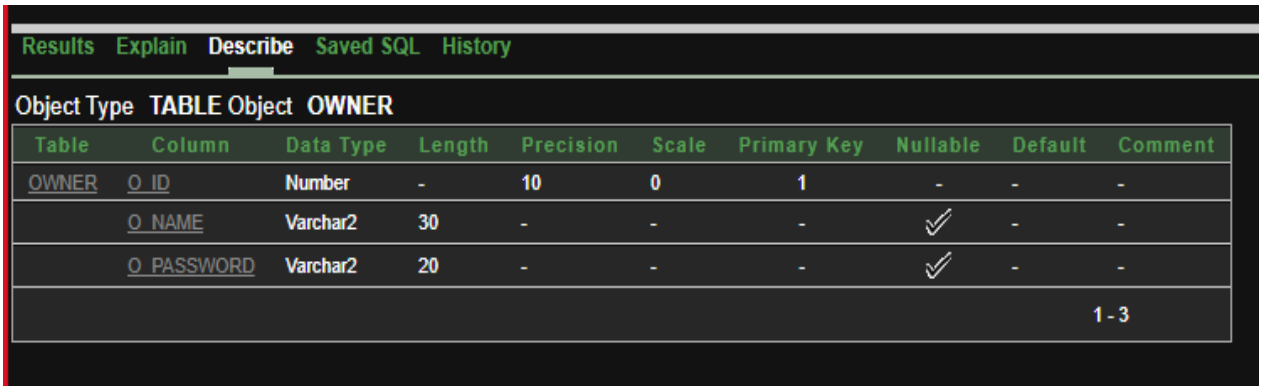
Owner:

```
CREATE TABLE owner(
o_id number(10),
o_name varchar(30),
o_password varchar(20),
constraint pk_owner primary key(o_id)
)

CREATE SEQUENCE seq_o_id
start with 1
increment by 1
nomaxvalue
nominvalue
Nocycle;

INSERT INTO owner VALUES (seq_o_id.nextval, 'Reaz', 'Reaz1234');

Desc owner;
```



Results Explain Describe Saved SQL History

Object Type TABLE Object OWNER

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
OWNER	O_ID	Number	-	10	0	1	-	-	-
	O_NAME	Varchar2	30	-	-	-	✓	-	-
	O_PASSWORD	Varchar2	20	-	-	-	✓	-	-

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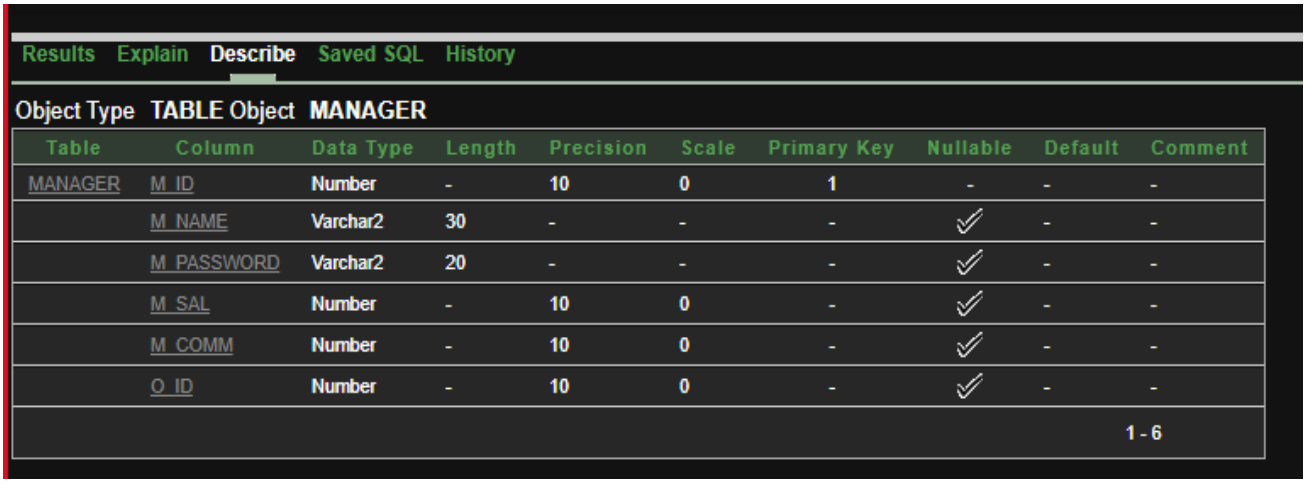
Manager:

```
CREATE TABLE manager(
m_id number(10),
m_name varchar(30),
m_password varchar(20),
m_sal number(10),
m_comm number(10),
o_id number(10),
constraint pk_manager primary key(m_id),
constraint fk_man_own foreign key(o_id) references owner(o_id)
)

CREATE SEQUENCE seq_m_id
start with 1
increment by 1
nomaxvalue
nominvalue
Nocycle;

INSERT INTO manager VALUES (seq_m_id.nextval, ' Reaz ', ' Reaz1234', '45000', '5000', '1');


Desc manager;
```



Results Explain Describe Saved SQL History

Object Type TABLE Object MANAGER

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
MANAGER	M_ID	Number	-	10	0	1	-	-	-
	M_NAME	Varchar2	30	-	-	-	✓	-	-
	M_PASSWORD	Varchar2	20	-	-	-	✓	-	-
	M_SAL	Number	-	10	0	-	✓	-	-
	M_COMM	Number	-	10	0	-	✓	-	-
	O_ID	Number	-	10	0	-	✓	-	-

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Customer:

```
CREATE TABLE customer(
u_id number(10),
u_name varchar2(30),
u_password varchar2(20),
address varchar2(10),
name varchar2(10),
mobile_no number(10),
constraint pk_customer primary key(u_id)
)
```

```
CREATE SEQUENCE seq_u_id
start with 4
increment by 1
nomaxvalue
nominvalue
Nocycle;
```

```
INSERT INTO customer VALUES (seq_u_id.nextval, ' Reaz ', ' Reaz1234', 'Khilgaon', 'Dhaka',
'12345678');
```

```
Desc customer;
```

Results Explain Describe Saved SQL History

Object Type TABLE Object CUSTOMER

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMER	U_ID	Number	-	10	0	1	-	-	-
	U_NAME	Varchar2	30	-	-	-	✓	-	-
	U_PASSWORD	Varchar2	20	-	-	-	✓	-	-
	ADDRESS	Varchar2	10	-	-	-	✓	-	-
	NAME	Varchar2	10	-	-	-	✓	-	-
	MOBILE_NO	Number	-	10	0	-	✓	-	-

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Car:

```
CREATE TABLE car(
c_id number(10),
c_name varchar(30),
price number(10),
model varchar2(20),
availability varchar2(20),
booked_id number(10),
m_id number(10),
o_id number(10),
u_id number(10),
constraint pk_car primary key(c_id),
constraint fk_car_man foreign key(m_id) references manager(m_id),
constraint fk_car_own foreign key(o_id) references owner(o_id),
constraint fk_car_cus foreign key(u_id) references customer(u_id)
)

CREATE SEQUENCE seq_c_id
start with 1
increment by 1
nomaxvalue
nominvalue
Nocycle;

INSERT INTO car VALUES (seq_c_id.nextval, 'Ferari', '5000000', 'r1', 'yes', '1', '1', '1', '6');


Desc car;
```

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **CAR**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CAR	C_ID	Number	-	10	0	1	-	-	-
	C_NAME	Varchar2	30	-	-	-	✓	-	-
	PRICE	Number	-	10	0	-	✓	-	-
	MODEL	Varchar2	20	-	-	-	✓	-	-
	AVAILABILITY	Varchar2	20	-	-	-	✓	-	-
	BOOKED_ID	Number	-	10	0	-	✓	-	-
	M_ID	Number	-	10	0	-	✓	-	-
	O_ID	Number	-	10	0	-	✓	-	-
	U_ID	Number	-	10	0	-	✓	-	-

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INSERTION

Owner table

```
INSERT INTO owner VALUES (seq_o_id.nextval, 'Reaz', 'Reaz1234');
INSERT INTO owner VALUES (seq_o_id.nextval, 'Pronay', 'Pronay1234');
INSERT INTO owner VALUES (seq_o_id.nextval, ‘Ahnaf’, 'Ahnaf1234');
INSERT INTO owner VALUES (seq_o_id.nextval, ‘Arshad', 'Arshad1234');
INSERT INTO owner VALUES (seq_o_id.nextval, 'Dim', ‘Dim1234');
```

```
select * from owner;
```

Results | Explain | Describe | Saved SQL

O_ID	O_NAME	O_PASSWORD
1	Reaz	Reaz1234
2	Reaz	Reaz1234
3	Pronay	Pronay1234
4	Ahnaf	Ahnaf1234
5	Arshad	Arshad1234
6	Dim	Dim1234

6 rows returned in 0.02 seconds CS

Manager table

```
INSERT INTO manager VALUES (seq_m_id.nextval, 'Reaz', 'Reaz1234', '45000', '5000', '1');
INSERT INTO manager VALUES (seq_m_id.nextval, 'Pronay', 'Pronay1234', '45000', '500', '2');
INSERT INTO manager VALUES (seq_m_id.nextval, ‘Ahnaf’, 'Ahnaf1234', '45000', '500', '3');
INSERT INTO manager VALUES (seq_m_id.nextval, ‘Arshad', 'Arshad1234', '45000', '500', '3');
INSERT INTO manager VALUES (seq_m_id.nextval, 'Dim', ‘Dim1234', '45000', '50', '4');
```

```
select * from manager;
```

Results Explain Describe Saved SQL History

M_ID	M_NAME	M_PASSWORD	M_SAL	M_COMM	O_ID
1	Reaz	Reaz1234	45000	5000	1
2	Reaz	Reaz1234	45000	5000	1
3	Pronay	Pronay1234	45000	500	2
4	Ahnaf	Ahnaf1234	45000	500	3
5	Arshad	Arshad1234	45000	500	3
6	Dim	Dim1234	45000	50	4

6 rows returned in 0.00 seconds CSV Export

Customer table

INSERT INTO customer VALUES (seq_u_id.nextval, 'Reaz', 'Reaz1234', 'Khilgaon', 'Dhaka', '12345678');
INSERT INTO customer VALUES (seq_u_id.nextval, 'Pronay', 'Pronay1234', 'uttara', 'Dhaka', '12345678');
INSERT INTO customer VALUES (seq_u_id.nextval, 'Pronay', 'Pronay1234', 'Mirpur', 'Dhaka', '12345678');
INSERT INTO customer VALUES (seq_u_id.nextval, ‘Arshad', 'Arshad1234', 'Motijheel', 'Dhaka', '12345678');
INSERT INTO customer VALUES (seq_u_id.nextval, 'Dim', ‘Dim1234', 'Kuratoli', 'Dhaka', '12345678');

select * from customer;

Results Explain Describe Saved SQL History

U_ID	U_NAME	U_PASSWORD	ADDRESS	NAME	MOBILE_NO
4	Reaz	Reaz1234	Khilgaon	Dhaka	12345678
5	Reaz	Reaz1234	Khilgaon	Dhaka	12345678
6	Pronay	Pronay1234	uttara	Dhaka	12345678
7	Ahnaf	Ahnaf1234	Mirpur	Dhaka	12345678
8	Arshad	Arshad1234	Motijheel	Dhaka	12345678
9	Dim	Dim1234	Kuratoli	Dhaka	12345678

6 rows returned in 0.00 seconds CSV Export

Car table

```
INSERT INTO car VALUES (seq_c_id.nextval, 'Ferari', '5000000', 'r1', 'yes', '1', '1', '1', '6');
INSERT INTO car VALUES (seq_c_id.nextval, 'BMW', '6000000', 'q51', 'yes', '5', '4', '2', '4');
INSERT INTO car VALUES (seq_c_id.nextval, 'Audi', '4000000', 'r8', 'yes', '3', '3', '3', '5');
INSERT INTO car VALUES (seq_c_id.nextval, 'Tata', '1000000', 'c7', 'yes', '4', '4', '2', '8');
INSERT INTO car VALUES (seq_c_id.nextval, 'Royal', '9000000', 'ghost', 'no', '2', '3', '1', '9');
```

```
select * from car;
```

Results | Explain | Describe | Saved SQL | History

C_ID	C_NAME	PRICE	MODEL	AVAILABILITY	BOOKED_ID	M_ID	O_ID	U_ID
2	Ferari	5000000	r1	yes	1	1	1	6
3	BMW	6000000	q51	yes	5	4	2	4
4	Audi	4000000	r8	yes	3	3	3	5
5	Tata	1000000	c7	yes	4	4	2	8
6	Royal	9000000	ghost	no	2	3	1	9

5 rows returned in 0.02 seconds CSV Export

Database use scenarios

Sub Query:

1. Find out the managers data whose commission is more than the manager id 4.

select * from manager where m_comm> (select m_comm from manager where m_id=4)

Results Explain Describe Saved SQL History

M_ID	M_NAME	M_PASSWORD	M_SAL	M_COMM	O_ID
1	Reaz	Reaz1234	45000	5000	1
2	Reaz	Reaz1234	45000	5000	1

2 rows returned in 0.00 seconds CSV Export

2. Find out the managers whose commission is more than the manager name Dim.

select * from manager where m_comm> (select m_comm from manager where m_name='Dim')

Results Explain Describe Saved SQL History

M_ID	M_NAME	M_PASSWORD	M_SAL	M_COMM	O_ID
1	Reaz	Reaz1234	45000	5000	1
2	Reaz	Reaz1234	45000	5000	1
3	Pronay	Pronay1234	45000	500	2
4	Ahnaf	Ahnaf1234	45000	500	3
5	Arshad	Arshad1234	45000	500	3

5 rows returned in 0.00 seconds CSV Export

3. Find out the cars which price is more than the model r8;

select * from car where price> (select price from car where model='r8')

Results Explain Describe Saved SQL History

C_ID	C_NAME	PRICE	MODEL	AVAILABILITY	BOOKED_ID	M_ID	O_ID	U_ID
2	Ferari	5000000	r1	yes	1	1	1	6
3	BMW	6000000	q51	yes	5	4	2	4
6	Royal	9000000	ghost	no	2	3	1	9
7	Ferari	5000000	r1	yes	1	1	1	6

4 rows returned in 0.00 seconds CSV Export

Joining:

4**.** Display all the managers and their respective owners.

select m.m_name, o.o_name from manager m, owner o where m.o_id = o.o_id;

Results Explain Describe Saved SQL History

M_NAME	O_NAME
Reaz	Reaz
Reaz	Reaz
Pronay	Reaz
Arshad	Pronay
Ahnaf	Pronay
Dim	Ahnaf

6 rows returned in 0.00 seconds CSV Export

5. Display all the managers and their assigned cars.

select m.m_name, c.c_name from manager m, car c where m.o_id = c.o_id;

Results Explain Describe Saved SQL History

M_NAME	C_NAME
Reaz	Ferari
Reaz	Ferari
Pronay	BMW
Arshad	Audi
Ahnaf	Audi
Pronay	Tata
Reaz	Royal
Reaz	Royal
Reaz	Ferari
Reaz	Ferari

10 rows returned in 0.00 seconds CSV Export

7. Display all the customers and their owned cars.

select c.c_name, cu.u_name from customer cu, car c where cu.u_id = c.u_id;

Results Explain Describe Saved SQL History

C_NAME	U_NAME
Ferari	Pronay
BMW	Reaz
Audi	Reaz
Tata	Arshad
Royal	Dim
Ferari	Pronay

6 rows returned in 0.00 seconds CSV Export

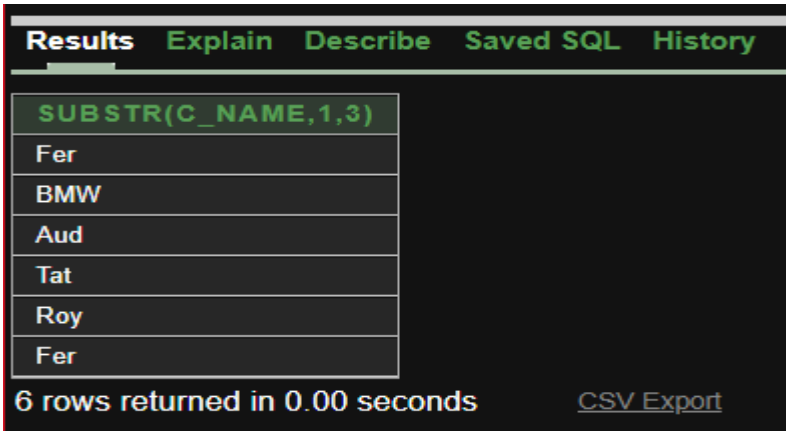
Single Row Function:

7. Display car's name and model as "car_details".

select concat(c_name,model) as car_details from car;

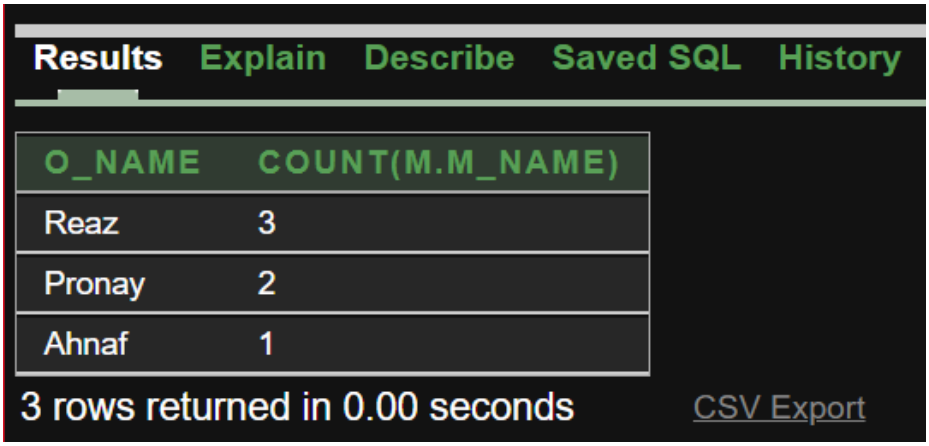
8. Display first 3 letters of all the cars.

select substr(c_name,1,3) from car;



9. Find out the owner names and the number of managers they manage.

select o.o_name,count(m.m_name) from owner o,manager m where o.o_id=m.o_id group by o.o_name;



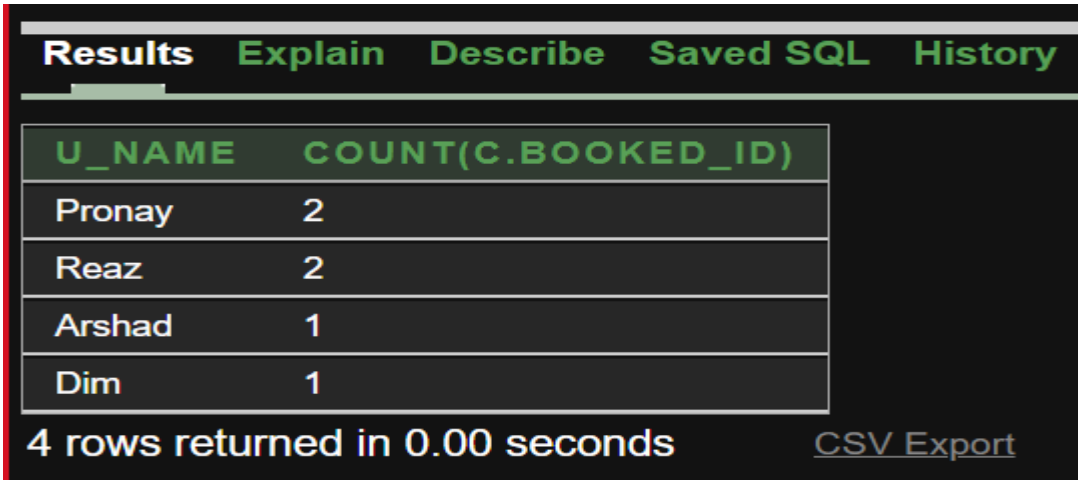
Results Explain Describe Saved SQL History

O_NAME	COUNT(M.M_NAME)
Reaz	3
Pronay	2
Ahnaf	1

3 rows returned in 0.00 seconds CSV Export

10. Find out the customer names and the number of the cars they booked.

select cu.u_name,count(c.booked_id) from customer cu,car c where cu.u_id=c.u_id group by cu.u_name;



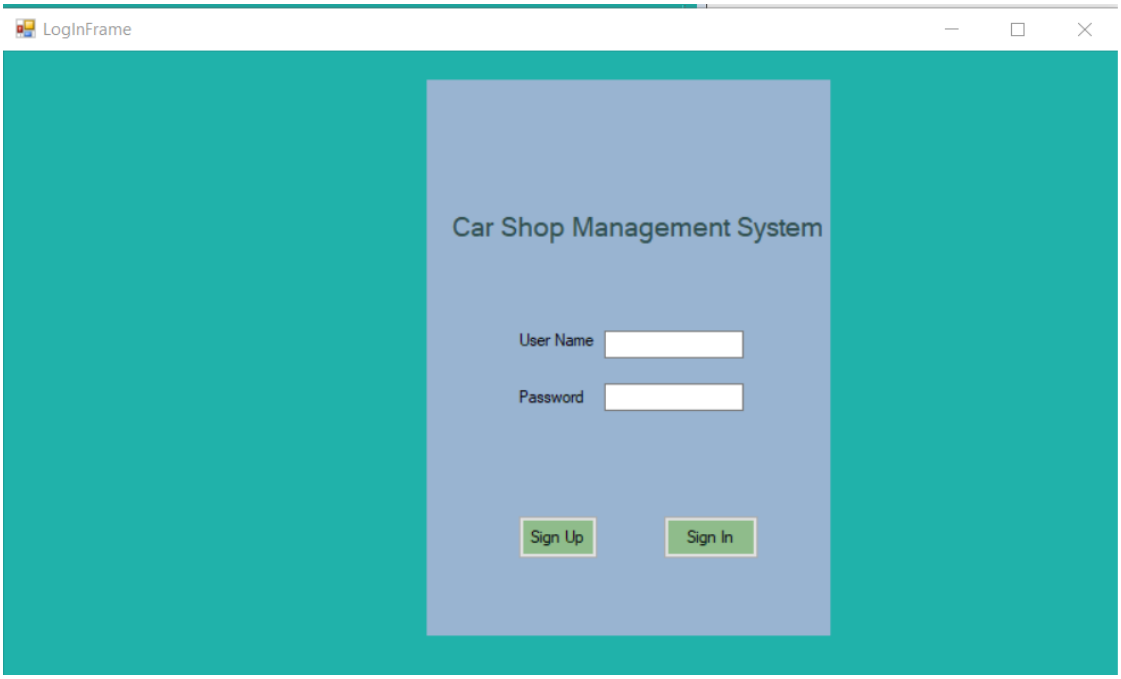
Results Explain Describe Saved SQL History

U_NAME	COUNT(C.BOOKED_ID)
Pronay	2
Reaz	2
Arshad	1
Dim	1

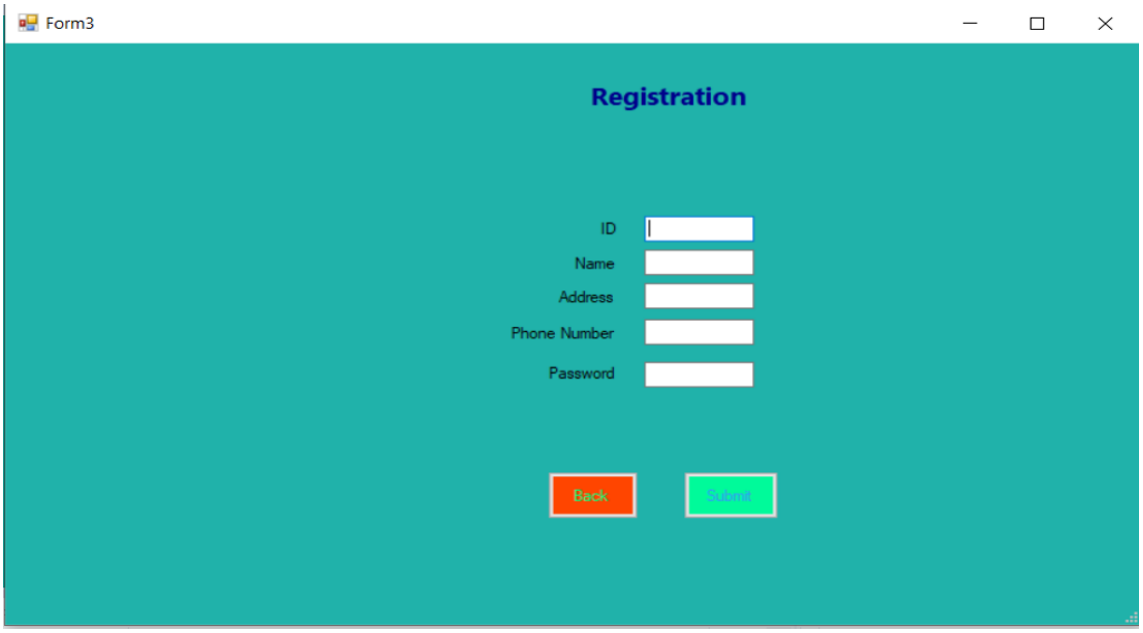
4 rows returned in 0.00 seconds CSV Export

User Interface

Login Page



Registration Page



Owner Dashboard