Course basic information

Code	Course Name	Credit Hours		
	Database	**Lecture**	**Practice**	**Total**

Research Title

(**Media Playlist Management System**   )

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System Description

The main objective of car rental system is to manage the details of car . it manages all information about car , booking . the purpose of the project is to build an application program to reduce the manual work for managing the car.

List of tables

1) Customer table

cid	fName	lName	Address

2) Vehicle table

Vid	Mileage	Location	Vsize	Vname

3) Reservation table

cid	Vid	Start_date	End_date

Entity Relationship Diagram
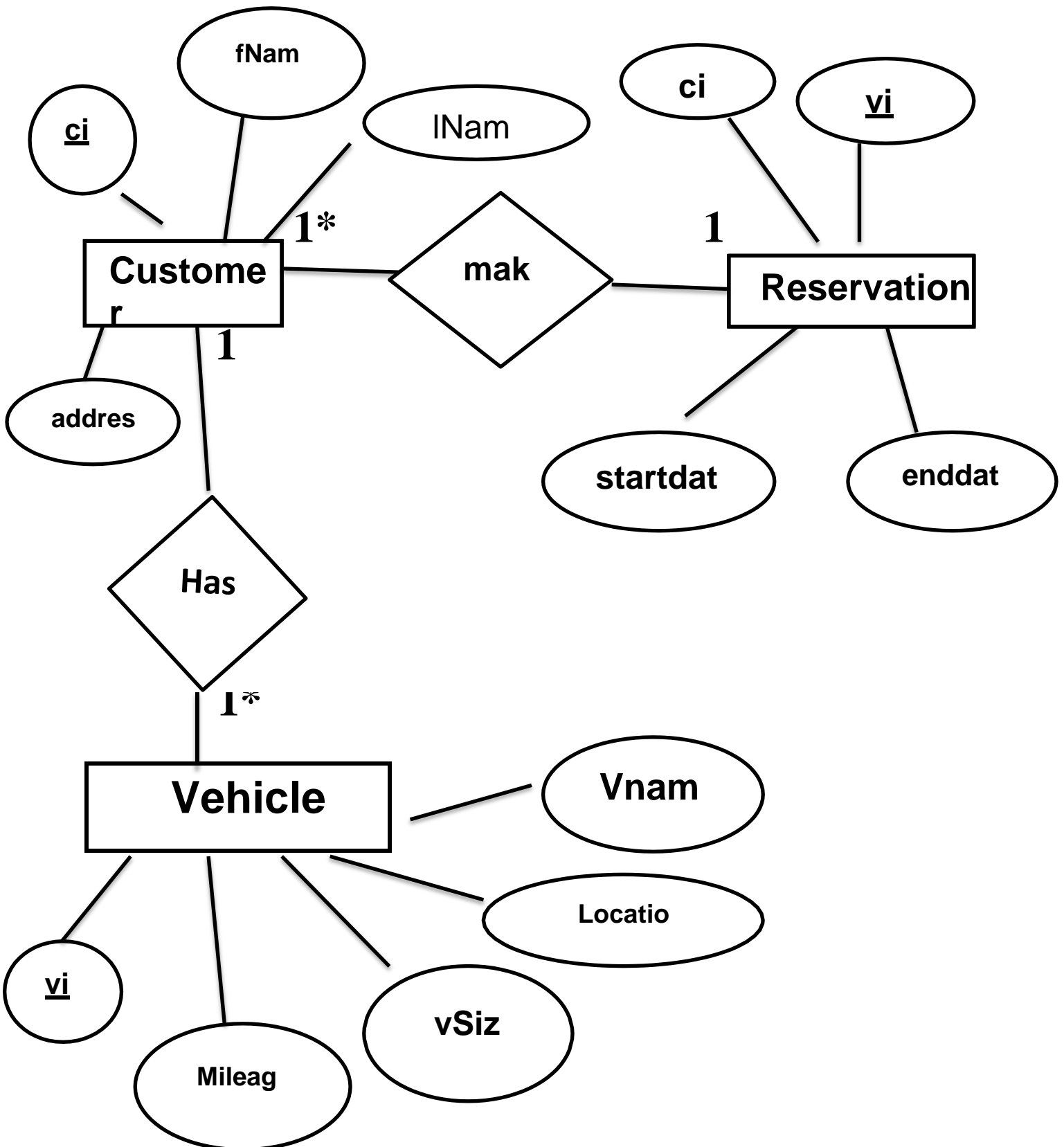
select statements

1. **Display records of customer table**

   Select   *
   From   customer ;

2. **Display records of vehicle table**

   Select   *
   From   vehicle ;

3. **Display records of reservation table**

   Select   *
   From   reservation ;

4. **Find the first name of customers whose last name starts with ' S'**

   Select   *
   From   customer
   Where   lName   like ' S %' ;

5. **Find location of all vehicles**

   Select   location
   From   vehicle ;

6. List first name , last name of customers in descending order

Select   fName , lName
 from   customer
order by desc ;

7. find all details of reservation which start date is 2019-01-01 and end date is 2019-01-05

Select   *
From   reservation
Where startdate =' 2019-01-01 ' and enddate=' 2019-01-05 '

8. List vehicles size which has id V101

Select   vsize
From   vehicle
Where   vid='V101'

9. List first name , last name of customers who retal a car

Select   fName , lName
From   customer c , reservation   r
Where   c. cid= r. cid ;

10.   List first name , address of customers who retal a car in 2019-02-5 to 2019-03- 1

Select   fName , address
From   customer c , reservation r
Where   c. cid = r. cid   and   startdate =' 2019-02-05 ' and enddate=' 2019-03-01 '

11. List all details of vehicles which retal in 2019-05-22 in descending order

```
Select              *
From          vehicle
Where         startdate =' 2019-05-22'
Order  by     desc ;
```

12. List all vehicles which name start with ' D'

```
Select        *
From       Vehicle
Where      Vname     like ' D %' ;
```

13. List all vehicles which   location is ' Sanford '

```
Select          *
From          vehicle
Where      location =' Sanford ' ;
```

14. List the count of all retals

```
Select        count (*)
From          reservation   ;
```

15. List the count of all vehicles

```
Select        count (*)
From          vehicles    ;
```

16. List vehicles which are retaled

```
Select    *
From    vehicle v  , reservation  r
Where   v. vid = r. vid  ;
```

17.   List all reservation in descending order

```
Select          *
From            reservation
Order  by       desc ;
```

18. List vehicles size which has id V201

```
Select   vsize
From    vehicle
```

19.   Find the first name of customers named ' smith '

```
Select        fName
From          customer
Where         fname=' smith ' ;
```

20. List location of car which are retaled

```
Select          Location
From            vehicle v , reservation     r
Where           v. vid=r. vid ;
```

Sub Query statements

1. List vehicles size is the most preferred

Select   vSize
From   vehicle
Where mileage = (select MAX(mileage) from vehicle) ;

2. List vehicles which are reserved for maximum time

Select   *
From   vehicle
Where   vid=
(select vid   from reservation where ROUND((enddate-startdate)/360)= (select Max(ROUND (enddate-startdate)/360) from reservation)) ;'

count and Group functions

1. **Find count of vehicles for each location which has at least five vehicles**

   Select   count(vid)
   from   vehicle
   Group by location
   Having   count(vid) >= 5 ;

2. **Find count of all customers**

   Select   count (*)
   From   customer
   Group by   cid ;

join statements

1.

> **Select   fName , lName**
> **From   customer c join reservation   r**
> **On   c. cid= r. cid ;**

2.

> **Select   location**
> **From   vehicle v left join reservation   r**
> **On   v. vid=r. vid ;**

insert statements

1) Insert into customer values('102', 'smith ' , ' Lone' , 'France');

2) Insert into vehicle values ('v101' , '70' , 'compact' , 'automatic' , ' France ') ;

3) Insert into reservation values ('101' , ' v102 ' , ' 2019-02-01', ' 2019-02-05) ;

4) Insert into customer values('105', 'ahmed ' , ' wahab' , 'Egypt');

5) insert into vehicle values ('v104' , '80' , 'compact' , 'automatic' , ' Egypt') ;

Update statements

1) **Update**   customer

    set   fName = ' blal '

    where   cid='101' ;

2) **Update** vehicle

    set   location='Egypt'

    where   vid='v103' ;

3) **Update** reservation

    set   startdate='2019-05-07'

    where   cid='103';

4) **Update**   customer

    set   fName = ' ahmed'

    where   cid='106' ;

5) **Update** vehicle

    set   location='Russia '

    where   vid='v106' ;

Delete Statements

1) Delete   from   **customer**

where fName=' smith ' ;

2)   Delete from**vehicle**

Where vid='v102' ;

3) Delete from **reservation**

where cid ='103 ' ;

4) Delete from **customer**

where   cid='102' ;

5) Delete from **vehicle**

where vid='v106 ' ;

USE [master]
GO
/****** Object: Database [Databases]   Script Date: 14/06/2020 12:17:25 ص ******/
CREATE DATABASE [Databases]
 CONTAINMENT = NONE
 ON PRIMARY

```
( NAME = N'Databases', FILENAME = N'C:\Program Files\Microsoft SQL
Server\MSSQL15.SQLEXPRESS\MSSQL\DATA\Databases.mdf' , SIZE = 8192KB ,
MAXSIZE = UNLIMITED, FILEGROWTH = 65536KB )
 LOG ON
( NAME = N'Databases_log', FILENAME = N'C:\Program Files\Microsoft SQL
Server\MSSQL15.SQLEXPRESS\MSSQL\DATA\Databases_log.ldf' , SIZE =
8192KB , MAXSIZE = 2048GB , FILEGROWTH = 65536KB )
 WITH CATALOG_COLLATION = DATABASE_DEFAULT
GO
ALTER DATABASE [Databases] SET COMPATIBILITY_LEVEL = 150
GO
IF (1 = FULLTEXTSERVICEPROPERTY('IsFullTextInstalled'))
begin
EXEC [Databases].[dbo].[sp_fulltext_database] @action = 'enable'
end
GO
ALTER DATABASE [Databases] SET ANSI_NULL_DEFAULT OFF
GO
ALTER DATABASE [Databases] SET ANSI_NULLS OFF
GO
ALTER DATABASE [Databases] SET ANSI_PADDING OFF
GO
ALTER DATABASE [Databases] SET ANSI_WARNINGS OFF
GO
ALTER DATABASE [Databases] SET ARITHABORT OFF
GO
ALTER DATABASE [Databases] SET AUTO_CLOSE OFF
GO
ALTER DATABASE [Databases] SET AUTO_SHRINK OFF
GO
ALTER DATABASE [Databases] SET AUTO_UPDATE_STATISTICS ON
GO
ALTER DATABASE [Databases] SET CURSOR_CLOSE_ON_COMMIT OFF
GO
ALTER DATABASE [Databases] SET CURSOR_DEFAULT  GLOBAL
GO
ALTER DATABASE [Databases] SET CONCAT_NULL_YIELDS_NULL OFF
GO
```
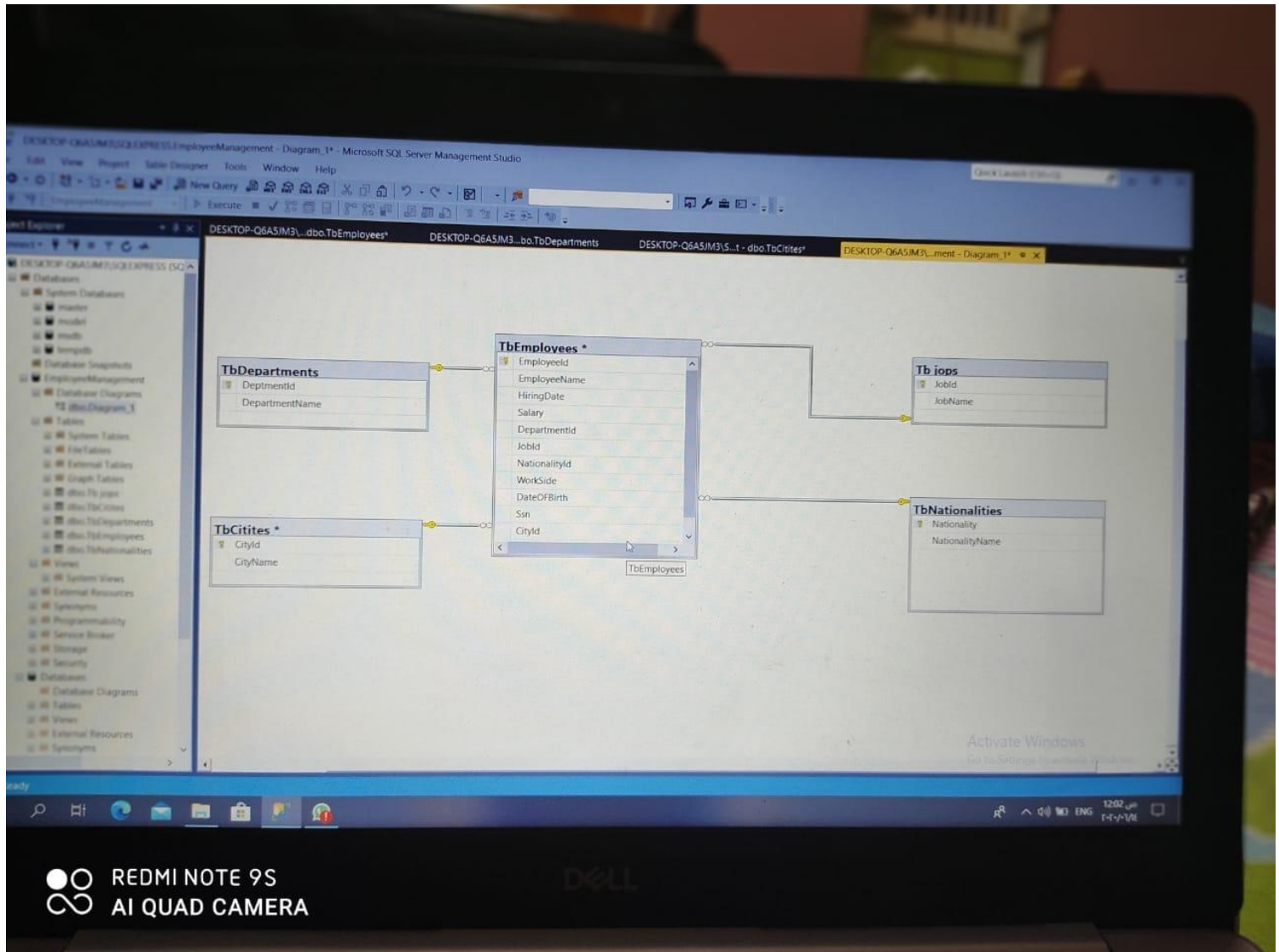
```sql
ALTER DATABASE [Databases] SET NUMERIC_ROUNDABORT OFF
GO
ALTER DATABASE [Databases] SET QUOTED_IDENTIFIER OFF
GO
ALTER DATABASE [Databases] SET RECURSIVE_TRIGGERS OFF
GO
ALTER DATABASE [Databases] SET  DISABLE_BROKER
GO
ALTER DATABASE [Databases] SET AUTO_UPDATE_STATISTICS_ASYNC
OFF
GO
ALTER DATABASE [Databases] SET DATE_CORRELATION_OPTIMIZATION
OFF
GO
ALTER DATABASE [Databases] SET TRUSTWORTHY OFF
GO
ALTER DATABASE [Databases] SET ALLOW_SNAPSHOT_ISOLATION OFF
GO
ALTER DATABASE [Databases] SET PARAMETERIZATION SIMPLE
GO
ALTER DATABASE [Databases] SET READ_COMMITTED_SNAPSHOT OFF
GO
ALTER DATABASE [Databases] SET HONOR_BROKER_PRIORITY OFF
GO
ALTER DATABASE [Databases] SET RECOVERY SIMPLE
GO
ALTER DATABASE [Databases] SET  MULTI_USER
GO
ALTER DATABASE [Databases] SET PAGE_VERIFY CHECKSUM
GO
ALTER DATABASE [Databases] SET DB_CHAINING OFF
GO
ALTER DATABASE [Databases] SET FILESTREAM(
NON_TRANSACTED_ACCESS = OFF )
GO
ALTER DATABASE [Databases] SET TARGET_RECOVERY_TIME = 60
SECONDS
GO
```

ALTER DATABASE [Databases] SET DELAYED_DURABILITY = DISABLED
GO
ALTER DATABASE [Databases] SET QUERY_STORE = OFF
GO
ALTER DATABASE [Databases] SET READ_WRITE
GO

References

Much of the contents of the topic is derived from

- https ://www.w3resource . com
- https : // www. mysql. Com
- https:// www.w3school.com