**University of Asia Pacific**



**Department of CSE**

**Course Code: CSE 212**

**Course Title: Database Management System LAB**

Date of submission : 30.07.19

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Section : A2

**Car Management System**

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**Description:**

The world is moving fast and getting faster every day, with this changing world one needs to be dynamic and fast in every aspect of life. vehicles are the only thing which helps people in a very faithful manner, so this also needs to be available easily and you should be allowed in your country to ride it freely and legally.

Here we have different Entities in our System. We will discuss each and every entity one by one below:

Car models

Car features

Vehicle Categories

Car manufacrturers

Address

Customer

Payments

Pay. Meth.

Pays

Choose

Place

Customer

Online Trans.

Cash On Del.

Payment

needs

Order

Takes

Cars

**AUTOM0BILE**

**Customer\_Payments**

**PK** Customer\_payment\_id

**FK** Customer\_id

**FK** Payment\_status\_code

Customer\_payment\_date

Actual\_payment\_amount

**Payment\_Status**

**PK** Payment\_Status\_Code

Payment\_Status\_Description

**Addresses**

**PK** Address\_id

**FK** Customer\_id

Address\_line

Town\_city

Country

Post\_zip\_code

**Customer\_Preferences**

**PK** Customer\_Preferences\_ID

**FK** Car\_Feature\_id

**FK** Customer\_id

Customer\_Preference\_Details

**Customers**

**PK** Customer\_id

Cell\_mobile\_phone

Email\_address

Other\_customer\_details

**Cars\_for\_Sale**

**PK** Cars\_for\_sale\_id

**FK** Manufacturers\_shortname

**FK** Model\_code

**FK** Vehicle\_categories\_code

Registration\_year

**Car\_Features**

**PK** Car\_feature\_ID

Car\_feature\_Description

**features\_on\_cars\_for\_sale**

**PF** Cars\_for\_sale\_id

**PF** Car\_feature\_id

**Car\_models**

**PK** Model\_code

Manufacturer\_code

Model\_name

Model\_Description

**Vehicle\_Categories**

**PK** Vehicle\_categories\_code

Vehicle\_categorie\_description

**Car\_Manufacturers**

**PK** Manufacturers\_shortname

Manufacturers\_fullname

Manufacturer\_OtherDetails

**Table creation code**

create database Automobile

use Automobile

create table cars\_for\_sale (

cars\_for\_sale\_id int,

manufacturers\_id int,

model\_code int,

vehicle\_categories\_code int,

asking\_price int,

registration\_yearr int,

constraint pk\_cars\_for\_sale primary key (cars\_for\_sale\_id),

constraint fk\_cars\_for\_sale foreign key(model\_code) references car\_models(model\_code),

constraint fk\_cars\_for\_sale2 foreign key (manufacturers\_id) references car\_manufacturers(manufacturers\_id),

constraint fk\_cars\_for\_sale3 foreign key(vehicle\_categories\_code) references vehicle\_categories(vehicle\_categories\_code)

);

create table car\_models(

model\_code int,

manufacturer\_code int,

model\_name varchar(50),

model\_description text,

constraint pk\_car\_models primary key(model\_code),

);

create table car\_manufacturers(

manufacturers\_id int,

manufacturers\_fullname varchar(50),

manufacturers\_otherdetails text,

constraint pk\_car\_manufacturers primary key(manufacturers\_id),

);

create table vehicle\_categories(

vehicle\_categories\_code int,

vehicle\_categorie\_description text,

constraint pk\_vehicle\_categories primary key(vehicle\_categories\_code),

);

create table car\_features(

car\_feature\_id int,

car\_feature\_description text,

constraint pk\_car\_features primary key(car\_feature\_id),

);

create table features\_on\_cars\_for\_sale(

cars\_for\_sale\_id int,

car\_feature\_id int,

constraint pk\_features\_on\_cars\_for\_sale primary key(cars\_for\_sale\_id,car\_feature\_id),

constraint fk\_features\_on\_cars\_for\_sale foreign key (cars\_for\_sale\_id) references cars\_for\_sale(cars\_for\_sale\_id),

constraint fk\_features\_on\_cars\_for\_sale2 foreign key (car\_feature\_id) references car\_features(car\_feature\_id),

);

create table customers(

customer\_id int,

cell\_mobile\_phone int,

email\_address varchar(50),

other\_customer\_details varchar(100),

constraint pk\_customers primary key(customer\_id),

);

create table customer\_preferences(

customer\_preferences\_ID int,

car\_feature\_id int,

customer\_id int,

customer\_preference\_details text,

constraint pk\_customer\_preferences primary key(customer\_preferences\_id),

constraint fk\_customer\_preferences foreign key (car\_feature\_id) references car\_features(car\_feature\_id),

constraint fk\_customer\_preferences2 foreign key (customer\_id) references customers(customer\_id),

);

create table addresses(

address\_id int,

customer\_id int,

address\_line varchar(50),

town\_city varchar(50),

country varchar(50),

post\_zip\_code tinyint,

constraint pk\_addresses primary key(address\_id),

constraint fk\_addresses foreign key(customer\_id) references customers(customer\_id),

);

create table payment\_status(

payment\_status\_code int,

payment\_status\_description text,

constraint pk\_payment\_status primary key(payment\_status\_code),

);

create table customer\_payments(

customer\_payment\_id int,

car\_sold\_id int,

customer\_id int,

payment\_status\_code int,

customer\_payment\_date varchar(50),

actual\_payment\_amount int,

constraint pk\_customer\_payments primary key(customer\_payment\_id),

constraint fk\_customer\_payments2 foreign key (customer\_id) references customers(customer\_id),

constraint fk\_customer\_payments3 foreign key(payment\_status\_code) references payment\_status(payment\_status\_code),

);

**Query:**

select avg(actual\_payment\_amount) as avg\_amount from customer\_payments

select \* from customer\_payments where actual\_payment\_amount>4000000

select \* from cars\_for\_sale where registration\_yearr>2017

select MIN(actual\_payment\_amount) as min\_price from customer\_payments

select Max(actual\_payment\_amount) as max\_price from customer\_payments

select Sum(actual\_payment\_amount) as Total\_sale from customer\_payments

select count(\*) as new\_car\_count from cars\_for\_sale where registration\_yearr>2015

select model\_name from car\_models where model\_code='1213'

select manufacturers\_fullname from car\_manufacturers

