

DBMS ASSIGNMENT-1

NAME: SAI SAMPATH BANDARU

ROLL NUMBER: 1602-18-737-099

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AUTOMATIC TRACKING AND ALLOCATING PARKING

CONTEXT:

- **ABSTRACT**
- **REQUIREMENT ANALYSIS**
- **ER DIAGRAM**
- **DDL COMMANDS**
- **DML COMMANDS**

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Abstract

Numerous number of vehicles have been parking everyday in the parking area..inorder to keep the track of the vehicles parked, number of slots left and as well as to calculate the parking fee as per the duration .

We will require five tables for this...

- 1.user table -for storing the details of the user ..who manages vehicle,customer, parking slot.
- 2.vehicle table-for v_id,vehicle type , vehicle owner id , vehicle_name..
- 3.parking slots-for pid,status of the slot and the type of the parking slot, parking fee
- 4.customer table-for storing the details of the owners of the vehicles.
- 5.duration -contains the time duration of the vehicle , duration type,and duration id.

The relationship between various entity sets helps in retrieval of the information ,calculation of parking fee and allotment of parking slots in an efficient way.

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REQUIREMENT ANALYSIS:

List of table:

- User1
- Customer
- Parking slots
- Vehicles
- Duration

List of attributes with their domain type:

- User
 - uemail(varchar2)
 - Uname(varchar2)
 - Uid(numeric)
 - Umobilenummer(numeric)
- Customer
 - Cname(varchar2)
 - Cid(numeric)
 - Cpass(varchar2)

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Cmobile(number)

- Parking slots

Psid(numeric)

Fee(numeric)

Pstype(varchar2)

Status(varchar2)

- Duration

DurationTime(numeric)

Dtype(varchar2)

Did(numeric)

- Vehicles

Vname (varchar2)

Vtype(varchar2)

Vno(numeric)

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Vid(numeric)

Vownerid(number)

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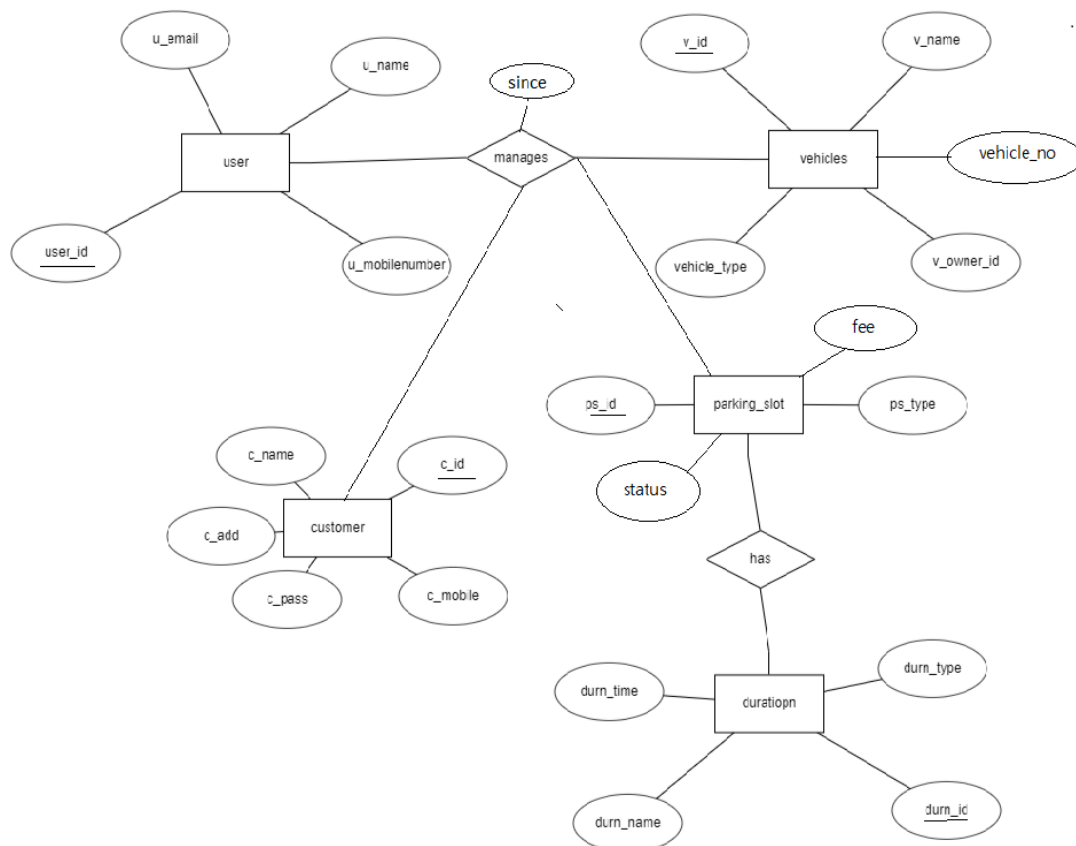
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ER DIAGRAM:



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DDL COMMANDS:

```
SQL Plus

SQL>Plus: Release 11.2.0.1.0 Production on Wed Feb 12 18:07:26 2020

Copyright (c) 1982, 2010, Oracle. All rights reserved.

Enter user-name: it18737099
Enter password:

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> create table USER1(uemail varchar2(20),uname varchar2(20),userid Numeric(10),umobilenum Numeric(10));
Table created.

SQL> create table VEHICLE(uname varchar2(20),uid numeric(10),utype varchar(2),uno numeric(10),ownerid numeric(10));
Table created.

SQL> create table customer(cid numeric(10),cname varchar2(20),cmobile numeric(20),cpass varchar2(10));
Table created.

SQL> alter table vehicle modify(utype varchar2(20));
Table altered.

SQL> create table parkinglot(fee numeric(10),pstype varchar2(20),status varchar2(10),psid numeric(10),cname varchar2(20));
Table created.

SQL> create table duration(dtype varchar2(20),dtime(hours) numeric(5),did numeric(5));
create table duration(dtype varchar2(20),dtime(hours) numeric(5),did numeric(5))
ERROR at line 1:
ORA-00902: invalid datatype

SQL> create table duration(dtype varchar2(20),dtime_hours numeric(5),did numeric(5));
Table created.

SQL> |
```

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```
SQL Plus

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> create table USER1(uemail varchar2(20),uname varchar2(20),userid Numeric(10),umobilenumber Numeric(10));
Table created.

SQL> create table VEHICLE(uname varchar2(20),uid numeric(10),utype varchar(2),uno numeric(10),ownerid numeric(10));
Table created.

SQL> create table customer(cid numeric(10),cname varchar2(20),cmobile numeric(20),cpass varchar2(10));
Table created.

SQL> alter table vehicle modify(utype varchar2(20));
Table altered.

SQL> create table parkingslot(fee numeric(10),pstype varchar2(20),status varchar2(10),psid numeric(10),cname varchar2(20));
Table created.

SQL> create table duration(dtype varchar2(20),dtime(hours) numeric(5),did numeric(5));
create table duration(dtype varchar2(20),dtime(hours) numeric(5),did numeric(5))
      *
ERROR at line 1:
ORA-00902: invalid datatype


SQL> create table duration(dtype varchar2(20),dtime_hours numeric(5),did numeric(5));
Table created.

SQL> select * from tab;

TNAME                                TABTYPE  CLUSTERID
-----                                -
BIN$+4BUapiqROC/ujUgVVR03g==$0      TABLE
CUSTOMER                             TABLE
DURATION                             TABLE
PARKINGSLLOT                         TABLE
USER1                                 TABLE
VEHICLE                              TABLE

0 rows selected.

SQL> |
```



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```
SQL Plus
CUSTOMER          TABLE
DURATION          TABLE
PARKINGSLLOT      TABLE
USER1             TABLE
VEHICLE           TABLE

0 rows selected.

SQL> desc customer;
Name                Null?    Type
-----
CID                 NOT NULL NUMBER(10)
CNAME              VARCHAR2(20)
CMOBILE            VARCHAR2(20)
CPASS              VARCHAR2(10)

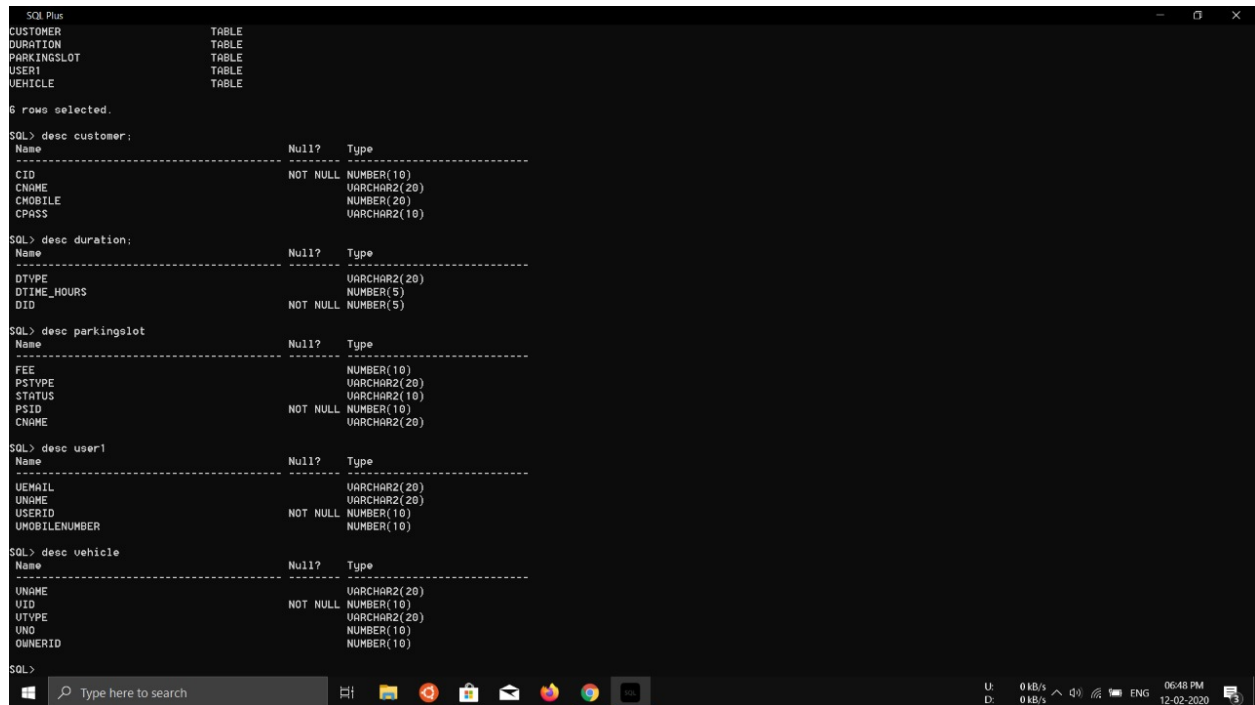
SQL> desc duration;
Name                Null?    Type
-----
DTYPE              VARCHAR2(20)
DTIME_HOURS        NUMBER(5)
DID                NOT NULL NUMBER(5)

SQL> desc parkingslot
Name                Null?    Type
-----
FEE                NUMBER(10)
PSTYPE            VARCHAR2(20)
STATUS            VARCHAR2(10)
PSID              NOT NULL NUMBER(10)
CNAME             VARCHAR2(20)

SQL> desc user1
Name                Null?    Type
-----
UEMAIL            VARCHAR2(20)
UNAME             VARCHAR2(20)
USERID            NOT NULL NUMBER(10)
UMOBILENUMBER     NUMBER(10)

SQL> desc vehicle
Name                Null?    Type
-----
UNAME            VARCHAR2(20)
UID              NOT NULL NUMBER(10)
UTYPE            VARCHAR2(20)
UNO              NUMBER(10)
OWNERID          NUMBER(10)

SQL>
```



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```
SQL Plus
CUSTOMER          TABLE
DURATION          TABLE
PARKINGSLLOT      TABLE
USER1             TABLE
VEHICLE           TABLE

0 rows selected.

SQL> desc customer;
Name                Null?    Type
-----
CID                 NOT NULL NUMBER(10)
CNAME              VARCHAR2(20)
CMOBILE            VARCHAR2(20)
CPASS              VARCHAR2(10)

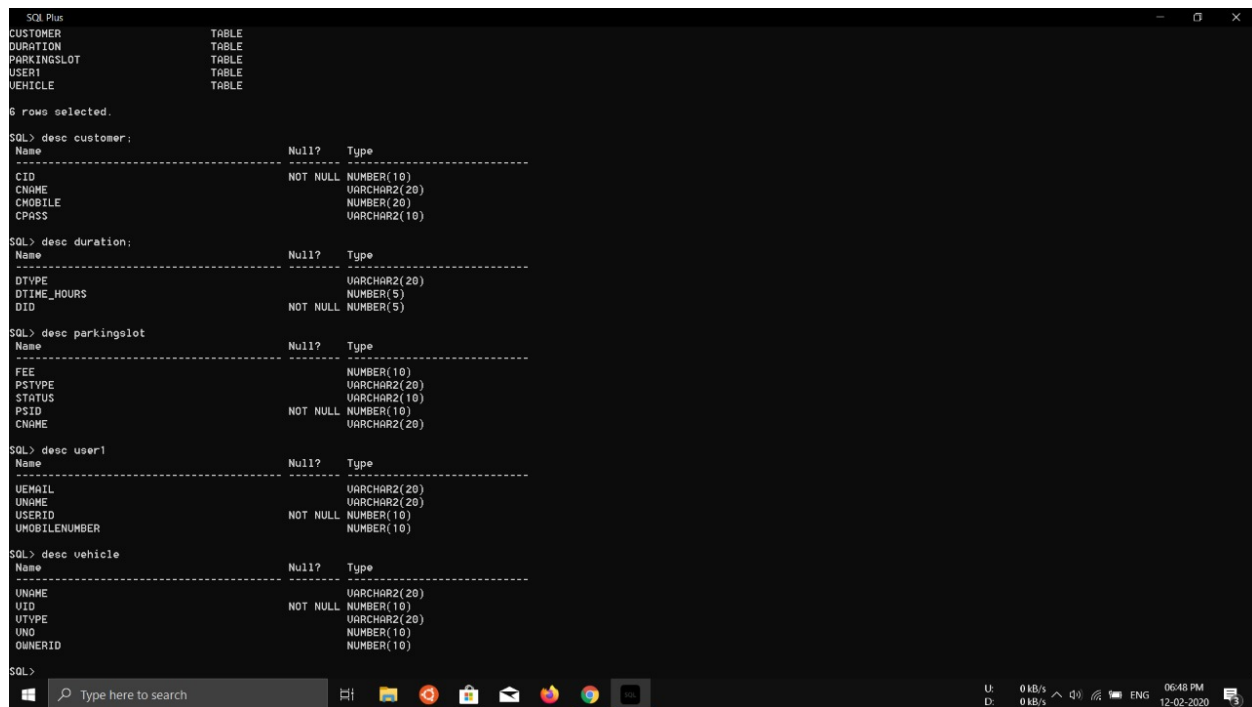
SQL> desc duration;
Name                Null?    Type
-----
DTYPE              VARCHAR2(20)
DTIME_HOURS        NUMBER(5)
DID                NOT NULL NUMBER(5)

SQL> desc parkingslot
Name                Null?    Type
-----
FEE                NUMBER(10)
PSTYPE            VARCHAR2(20)
STATUS            VARCHAR2(10)
PSID              NOT NULL NUMBER(10)
CNAME            VARCHAR2(20)

SQL> desc user1
Name                Null?    Type
-----
UEMAIL            VARCHAR2(20)
UNAME             VARCHAR2(20)
USERID            NOT NULL NUMBER(10)
UMOBILENUMBER     NUMBER(10)

SQL> desc vehicle
Name                Null?    Type
-----
UNAME            VARCHAR2(20)
UID              NOT NULL NUMBER(10)
UTYPE            VARCHAR2(20)
UNO              NUMBER(10)
OWNERID          NUMBER(10)

SQL>
```



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DML COMMANDS:

```
SQL Plus
SQL> desc customer
Name                               Null?    Type
-----
CID                                NOT NULL NUMBER(10)
CNAME                              VARCHAR2(20)
CMOBILE                             NUMBER(20)
CPASS                               VARCHAR2(10)

SQL> insert into customer values(&cid,&cname,&cmobile,&cpass);
Enter value for cid: 101
Enter value for cname: sampath
Enter value for cmobile: 9381321423
Enter value for cpass: yes
old 1: insert into customer values(&cid,&cname,&cmobile,&cpass)
new 1: insert into customer values(101,'sampath',9381321423,'yes')

1 row created.

SQL> insert into customer values(&cid,&cname,&cmobile,&cpass);
Enter value for cid: 102
Enter value for cname: anoop
Enter value for cmobile: 9440727811
Enter value for cpass: no
old 1: insert into customer values(&cid,&cname,&cmobile,&cpass)
new 1: insert into customer values(102,'anoop',9440727811,'no')

1 row created.

SQL> /
Enter value for cid: 103
Enter value for cname: hemanth
Enter value for cmobile: 9948152234
Enter value for cpass: no
old 1: insert into customer values(&cid,&cname,&cmobile,&cpass)
new 1: insert into customer values(103,'hemanth',9948152234,'no')

1 row created.

SQL> /
Enter value for cid: 104
Enter value for cname: rohith
Enter value for cmobile: 6303775736
Enter value for cpass: yes
old 1: insert into customer values(&cid,&cname,&cmobile,&cpass)
new 1: insert into customer values(104,'rohith',6303775736,'yes')

1 row created.

SQL> insert into
```

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```
SQL Plus
SQL> insert into customer values(&cid,&cname,&cmobile,&cpass');
Enter value for cid: 101
Enter value for cname: sampath
Enter value for cmobile: 9381321423
Enter value for cpass: yes
old 1: insert into customer values(&cid,&cname,&cmobile,&cpass')
new 1: insert into customer values(101,'sampath',9381321423,'yes')
1 row created.

SQL> insert into customer values(&cid,&cname,&cmobile,&cpass');
Enter value for cid: 102
Enter value for cname: anoop
Enter value for cmobile: 9440727811
Enter value for cpass: no
old 1: insert into customer values(&cid,&cname,&cmobile,&cpass')
new 1: insert into customer values(102,'anoop',9440727811,'no')
1 row created.


SQL> /
Enter value for cid: 103
Enter value for cname: hemanth
Enter value for cmobile: 9948152234
Enter value for cpass: no
old 1: insert into customer values(&cid,&cname,&cmobile,&cpass')
new 1: insert into customer values(103,'hemanth',9948152234,'no')
1 row created.

SQL> /
Enter value for cid: 104
Enter value for cname: rohith
Enter value for cmobile: 6303775736
Enter value for cpass: yes
old 1: insert into customer values(&cid,&cname,&cmobile,&cpass')
new 1: insert into customer values(104,'rohith',6303775736,'yes')
1 row created.

SQL> select * from customer;

  CID CNAME      CMOBILE CPASS
-----
  101 sampath    9381321423 yes
  102 anoop     9440727811 no
  103 hemanth   9948152234 no
  104 rohith    6303775736 yes

SQL>
```



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```
SQL Plus
-----
CID CNAME          CMOBILE CPASS
-----
101 sampath        9381321423 yes
102 anoop          9440727811 no
103 heenanth       9948152234 no
104 rohith         630375736 yes

SQL> desc duration
-----
Name                               Null?    Type
-----
DTYPE                               UARCHAR2(20)
DTIME_HOURS                         NUMBER(5)
DID                                  NOT NULL NUMBER(5)

SQL> insert into duration values('&dtype',&dtime_hours,&did);
Enter value for dtype: daily
Enter value for dtime_hours: 5
Enter value for did: 201
old 1: insert into duration values('&dtype',&dtime_hours,&did)
new 1: insert into duration values('daily',5,201)

1 row created.

SQL> /
Enter value for dtype: weekly
Enter value for dtime_hours: 40
Enter value for did: 202
old 1: insert into duration values('&dtype',&dtime_hours,&did)
new 1: insert into duration values('weekly',40,202)

1 row created.

SQL> /
Enter value for dtype: monthly
Enter value for dtime_hours: 203
Enter value for did: 203
old 1: insert into duration values('&dtype',&dtime_hours,&did)
new 1: insert into duration values('monthly',203,203)

1 row created.

SQL> select * from duration;

DTYPE          DTIME_HOURS    DID
-----
daily          5             201
weekly         40            202
monthly        203           203

SQL>
```

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```
SQL Plus
PSTYPE          VARCHAR2(20)
STATUS          VARCHAR2(10)
PSID            NOT NULL NUMBER(10)
PNAME          VARCHAR2(20)

SQL> insert into parkingslot values(&fee,&ptype,&status,&psid,&pname);
Enter value for fee: 40
Enter value for ptype: car
Enter value for status: unoccupied
Enter value for psid: 301
Enter value for pname: p1
old 1: insert into parkingslot values(&fee,&ptype,&status,&psid,&pname)
new 1: insert into parkingslot values(40,'car','unoccupied',301,'p1')
1 row created.

SQL> /
Enter value for fee: 20
Enter value for ptype: bike
Enter value for status: occupied
Enter value for psid: 302
Enter value for pname: p2
old 1: insert into parkingslot values(&fee,&ptype,&status,&psid,&pname)
new 1: insert into parkingslot values(20,'bike','occupied',302,'p2')
1 row created.

SQL> /
Enter value for fee: 40
Enter value for ptype: car
Enter value for status: unoccupied
Enter value for psid: 303
Enter value for pname: p3
old 1: insert into parkingslot values(&fee,&ptype,&status,&psid,&pname)
new 1: insert into parkingslot values(40,'car','unoccupied',303,'p3')
1 row created.

SQL> /
Enter value for fee: 20
Enter value for ptype: bike
Enter value for status: occupied
Enter value for psid: 304
Enter value for pname: p4
old 1: insert into parkingslot values(&fee,&ptype,&status,&psid,&pname)
new 1: insert into parkingslot values(20,'bike','occupied',304,'p4')
1 row created.

SQL> |
```

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```
SQL Plus
Enter value for psid: 301
Enter value for pname: p1
old 1: insert into parkingslot values(&fee,&ptype,&status,&psid,&pname)
new 1: insert into parkingslot values(40,'car','unoccupied',301,'p1')
1 row created.

SQL> /
Enter value for fee: 20
Enter value for ptype: bike
Enter value for status: occupied
Enter value for psid: 302
Enter value for pname: p2
old 1: insert into parkingslot values(&fee,&ptype,&status,&psid,&pname)
new 1: insert into parkingslot values(20,'bike','occupied',302,'p2')
1 row created.


SQL> /
Enter value for fee: 40
Enter value for ptype: car
Enter value for status: unoccupied
Enter value for psid: 303
Enter value for pname: p3
old 1: insert into parkingslot values(&fee,&ptype,&status,&psid,&pname)
new 1: insert into parkingslot values(40,'car','unoccupied',303,'p3')
1 row created.

SQL> /
Enter value for fee: 20
Enter value for ptype: bike
Enter value for status: occupied
Enter value for psid: 304
Enter value for pname: p4
old 1: insert into parkingslot values(&fee,&ptype,&status,&psid,&pname)
new 1: insert into parkingslot values(20,'bike','occupied',304,'p4')
1 row created.

SQL> select * from parkingslot;

  FEE PSTYPE      STATUS      PSID PNAME
-----
   40 car      unoccupied      301 p1
   20 bike      occupied      302 p2
   40 car      unoccupied      303 p3
   20 bike      occupied      304 p4

SQL>
```



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```
SQL Plus
UID                                NOT NULL NUMBER(10)
UTYPE                              VARCHAR2(20)
UNO                                NUMBER(10)
OWNERID                            NUMBER(10)

SQL> insert into vehicle values('&uname',&uid,&utype',&uno,&ownerid);
Enter value for uname: swift
Enter value for uid: 501
Enter value for utype: car
Enter value for uno: 9088
Enter value for ownerid: 101
old 1: insert into vehicle values('&uname',&uid,&utype',&uno,&ownerid)
new 1: insert into vehicle values('swift',501,'car',9088,101)

1 row created.

SQL> /
Enter value for uname: fz
Enter value for uid: 502
Enter value for utype: bike
Enter value for uno: 9995
Enter value for ownerid: 102
old 1: insert into vehicle values('&uname',&uid,&utype',&uno,&ownerid)
new 1: insert into vehicle values('fz',502,'bike',9995,102)

1 row created.

SQL> /
Enter value for uname: brio
Enter value for uid: 503
Enter value for utype: car
Enter value for uno: 4674
Enter value for ownerid: 103
old 1: insert into vehicle values('&uname',&uid,&utype',&uno,&ownerid)
new 1: insert into vehicle values('brio',503,'car',4674,103)

1 row created.

SQL> /
Enter value for uname: apache
Enter value for uid: 504
Enter value for utype: bike
Enter value for uno: 4758
Enter value for ownerid: 104
old 1: insert into vehicle values('&uname',&uid,&utype',&uno,&ownerid)
new 1: insert into vehicle values('apache',504,'bike',4758,104)

1 row created.

SQL>
```


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```
SQL Plus
Enter value for uno: 9088
Enter value for ownerid: 101
old 1: insert into vehicle values('&uname',&uid,'&utype',&uno,&ownerid)
new 1: insert into vehicle values('swift',501,'car',9088,101)

1 row created.

SQL> /
Enter value for uname: fz
Enter value for uid: 502
Enter value for utype: bike
Enter value for uno: 9995
Enter value for ownerid: 102
old 1: insert into vehicle values('&uname',&uid,'&utype',&uno,&ownerid)
new 1: insert into vehicle values('fz',502,'bike',9995,102)

1 row created.

SQL> /
Enter value for uname: brio
Enter value for uid: 503
Enter value for utype: car
Enter value for uno: 4674
Enter value for ownerid: 103
old 1: insert into vehicle values('&uname',&uid,'&utype',&uno,&ownerid)
new 1: insert into vehicle values('brio',503,'car',4674,103)

1 row created.

SQL> /
Enter value for uname: apache
Enter value for uid: 504
Enter value for utype: bike
Enter value for uno: 4758
Enter value for ownerid: 104
old 1: insert into vehicle values('&uname',&uid,'&utype',&uno,&ownerid)
new 1: insert into vehicle values('apache',504,'bike',4758,104)

1 row created.

SQL> select * from vehicle;

UNAME          UID  UTYPE          UNO  OWNERID
-----
swift          501   car             9088    101
fz             502   bike            9995    102
brio           503   car             4674    103
apache         504   bike            4758    104

SQL>
```

