

**NANYANG  
TECHNOLOGICAL  
UNIVERSITY**  
**SINGAPORE**

**SC2207 - Introduction to Databases**

**Project Report  
AY 2025-26/SEMESTER 1**

**SDAB : Group 5**

<b><u>Team Members</u></b>	<b><u>Matriculation Number</u></b>
Agarwal Dhruvika	U2423574H
Lai Kah Seng	U2420091D
Hasini Lagatapathi	U2421663K
Sridhar Abhinav	U2420140J
Seth Yew Kuan Yang	U2423755H

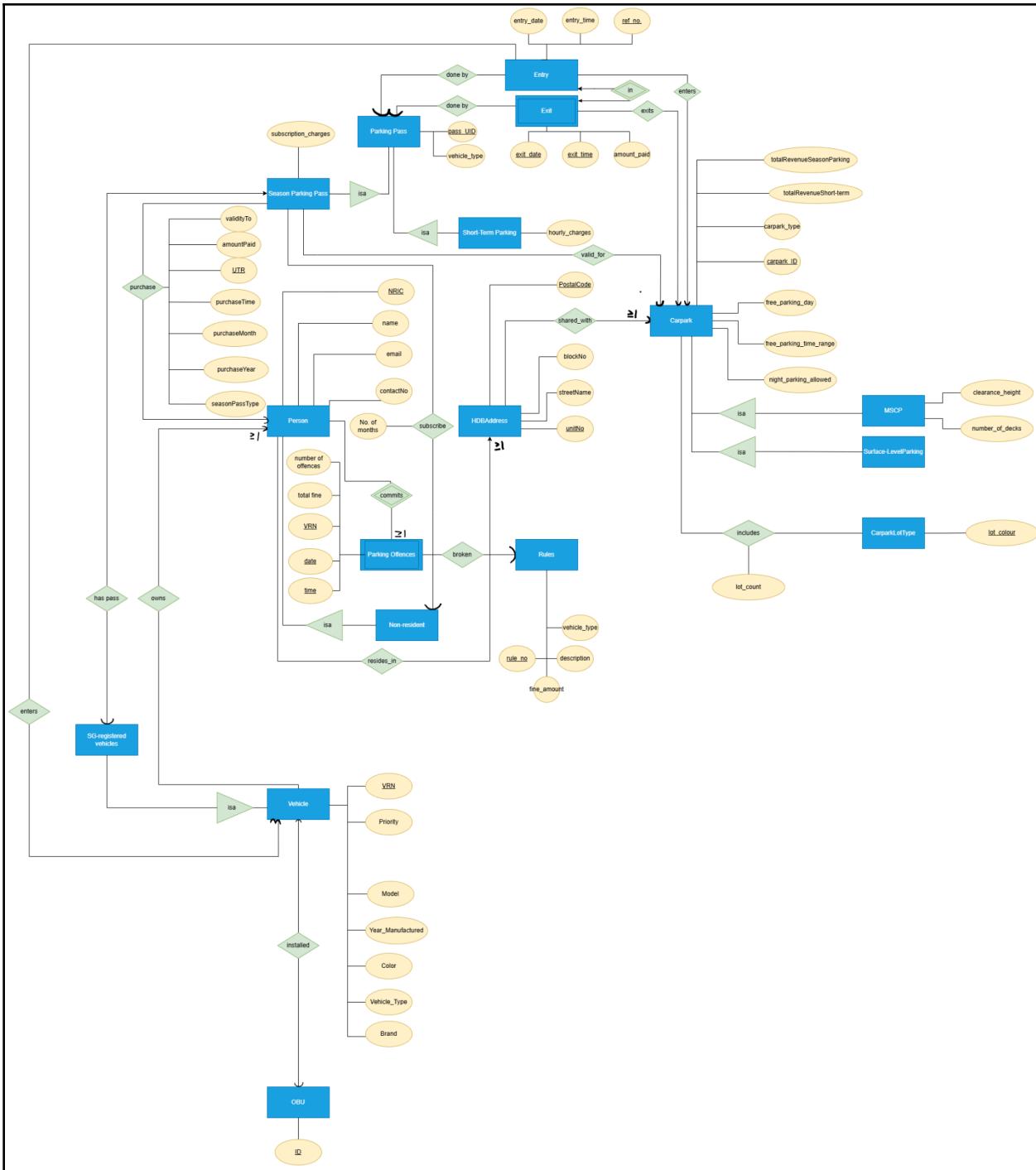
<b>Introduction.....</b>	<b>4</b>
<b>1. ER Diagram.....</b>	<b>5</b>
<b>2. Finalised schemas.....</b>	<b>6</b>
<b>3. Table Creation.....</b>	<b>9</b>
3.1 Rules.....	9
3.2 Parking Pass.....	9
3.3 Carpark.....	9
3.4 HDB Address.....	10
3.5 Person.....	10
3.6 MSCP.....	11
3.7 Includes.....	11
3.8 Vehicle.....	11
3.9 OBU.....	12
3.10 ShortTermParking.....	12
3.11 SeasonParkingPass.....	13
3.12 ParkingOffense.....	14
3.13 Entry.....	14
3.14 Exit.....	15
<b>4. Data insertion into tables.....</b>	<b>16</b>
4.1 Rules.....	16
4.2 Parking Pass.....	17
4.3 Carpark.....	21
4.4 HDB Address.....	22
4.5 Person.....	23
4.7 Includes.....	26
4.8 Vehicle.....	28
4.9 OBU.....	30
4.10 ShortTermParking.....	32
4.11 SeasonParkingPass.....	32
4.12 ParkingOffense.....	38
4.13 Entry.....	41
4.14 Exit.....	46
<b>5. Appendix B.....</b>	<b>52</b>
5.1 Query 1.....	52
5.2 Query 2.....	54
5.3 Query 3.....	55
5.4 Query 4.....	57
5.5 Query 5.....	58
5.6 Query 6.....	60
<b>6. Additional efforts.....</b>	<b>62</b>
6.1 Additional Query 1.....	62
6.2 Additional Query 2.....	64

<b>7. Clarifications.....</b>	<b>66</b>
7.1. Not all HDB carparks have a free parking time range or free parking days (NULL values) 66	
7.2. Why some HDB addresses have NULL carpark_ID.....	66
<b>Appendix: Individual Contribution Form.....</b>	<b>67</b>
<b>Appendix: Use of AI Tool(s) in Lab Work.....</b>	<b>68</b>

# **Introduction**

We designed and implemented our database based on the ER diagram and schema drafts from previous lab sessions, which are also included in this report. Primary keys were assigned to core entities such as Carpark, Person, Vehicle, ParkingPass, and Rules, and foreign key constraints were used to link related tables and maintain data consistency. For example, each vehicle is associated with its owner through the Person table. Parking structures and lot distributions are linked to Carpark through MSCP and Includes. Parking activities are recorded through the Entry and Exit tables, which reference both vehicles and carparks. Similarly, SeasonParkingPass and ShortTermParking draw from ParkingPass, while ParkingOffense records violations by linking vehicles and their corresponding rule numbers. These relationships ensure that data remains accurate, traceable, and logically connected throughout the database.

# 1. ER Diagram



[https://app.diagrams.net/#G1NCmuKr8Q4KGvgNDuo1Cp2Y56pa06noiL#%7B%22pageId%22%3A%22LCqs-gr\\_jOo58gypReDo%22%7D](https://app.diagrams.net/#G1NCmuKr8Q4KGvgNDuo1Cp2Y56pa06noiL#%7B%22pageId%22%3A%22LCqs-gr_jOo58gypReDo%22%7D)

## 2. Finalised schemas

- 1) Person(NRIC,name,email,contact\_no, unit\_no-postal\_code)
  - a. **Keys:** NRIC, email
  - b. **Primary key:** NRIC
  - c. **FDs:** NRIC → name, email, contact\_no, unit\_no, postal\_code; email → NRIC
  - d. **The relationship is in BCNF**
- 2) HDBAddress(unit\_no,postal\_code,street\_name,block\_no,carpark\_ID)
  - a. **Keys:** unit\_no-postal\_code
  - b. **Primary Key:** unit\_no-postal\_code
  - c. **FDs:** (unit\_no, postal\_code) → street\_name, block\_no, carpark\_ID
  - d. **The relationship is in BCNF**
- 3) Vehicle(VRN,priority,brand,model,year\_manufactured,colour,vehicle\_type,owner\_NRIC)
  - a. **Primary Keys:** VRN
  - b. **FDs:** VRN → priority, brand, model, year\_manufactured, colour, vehicle\_type, owner\_NRIC
  - c. **The relationship is in BCNF**
- 4) OBU(OBU\_ID,VRN)
  - a. **Keys:** VRN, OBU\_ID
  - b. **Primary Key:** OBU\_ID
  - c. **FDs:** OBU\_ID → VRN; VRN → OBU\_ID
  - d. **The relationship is in BCNF**
- 5) ParkingPass(pass\_UID,vehicle\_type)
  - a. **Keys:** pass\_UID
  - b. **Primary Keys:** pass\_UID
  - c. **FD:** pass\_UID → vehicle\_type
  - d. **The relationship is in BCNF.**
- 6) Carpark(carpark\_ID,carpark\_type,free\_parking\_day,free\_parking\_time\_range,night\_parking\_allowed,totalRevenueSeasonParking,totalRevenueShort-term)
  - a. **Key:** carpark\_ID
  - b. **Primary key:** carpark ID
  - c. **FDs:** carpark\_ID → carpark\_type, free\_parking\_day, free\_parking\_time\_range, night\_parking\_allowed, totalRevenueSeasonParking, totalRevenueShort-term
  - d. **The relationship is in BCNF**
- 7) Entry(ref\_no,entry\_date,entry\_time,carpark\_ID,VRN,pass\_UID)
  - a. **Key:** ref\_no.
  - b. **Primary Key:** ref\_no
  - c. **FDs:** ref\_no → carpark\_ID, pass\_UID, entry\_date, entry\_time, VRN
  - d. **The relationship is in BCNF**

8) **Exit(ref\_no, exit\_date, exit\_time, carpark\_ID, pass\_UID, amount\_paid)**

- a. **Key:** ref\_no-exit\_date-exit\_time
- b. **Primary Key:** ref\_no- exit\_date - exit\_time
- c. **FDs:** ref\_no- exit\_date - exit\_time → pass\_UID, amount\_paid, carpark\_ID
- d. **The relationship is in BCNF**

9) **ParkingOffense(NRIC, date\_time, VRN, rule\_no, total\_fine, number\_of\_offenses)**

- a. **Keys:** NRIC-date-time-VRN
- b. **Primary Key:** (NRIC- date-time-VRN)
- c. **FDs:** (NRIC- date-time-VRN) → rule\_no, total\_fine, number\_of\_offenses
- d. **The relationship is in BCNF**

10) **MSCP(carpark\_ID, clearance\_height, number\_of\_decks)**

- a. **Key:** carpark\_ID
- b. **Primary Key:** carpark\_ID
- c. **FD:** carpark\_ID → clearance\_height, number\_of\_decks
- d. **The relationship is in BCNF**

11) **Includes(carpark\_ID, lot\_colour, lot\_count)**

- a. **Key:** carpark\_ID-lot\_colour
- b. **Primary Key:** (carpark\_ID-lot\_colour)
- c. **FD:** carpark\_ID-lot\_colour → lot\_count
- d. **The relationship is in BCNF**

12) **Rules(rule\_no, vehicle\_type, description, fine\_amount)**

- a. **Key:** rule\_no.
- b. **Primary Key:** rule\_no
- c. **FDs:** rule\_no → vehicle\_type, description, fine\_amount
- d. **The relationship is in BCNF**

13) **ShortTermParking(pass\_UID, hourly\_charges)**

- a. **Key:** pass\_UID
- b. **Primary Key:** pass\_UID
- c. **FDs:** pass\_UID → hourly\_charges
- d. **The relationship is in BCNF**

14) **SeasonParkingPass(pass\_UID, subscription\_charges, validityTo, amountPaid, UTR, purchaseTime, purchaseMonth, purchaseYear, seasonPassType, carpark\_ID, purchaser\_NRIC)**

- a. **Keys:** pass\_UID, UTR
- b. **Primary Key:** pass\_UID
- c. **FDs:** pass\_UID → subscription\_charges, validityTo, amountPaid, UTR, purchaseTime, purchaseMonth, purchaseYear, seasonPassType, carpark\_ID, purchaser\_NRIC;

$\text{UTR} \rightarrow \text{pass\_UID}, \text{carpark\_ID}, \text{subscription\_charges}, \text{purchaser\_NRIC}, \text{purchaseMonth}, \text{purchaseYear}, \text{purchaseTime}, \text{validityTo}, \text{amountPaid}, \text{seasonPassType}$

d. **The relationship is in BCNF**

**NOTE:**

**Why are all the tables in BCNF?**

All tables in our design satisfy Boyce–Codd Normal Form (BCNF) because, for every functional dependency identified, the left-hand side (LHS) is a key (a minimal superkey). In other words, no non-key attribute determines another attribute. Even in cases where multiple candidate keys exist, we select one to serve as the primary key. Still, the important condition is that the determinant in each functional dependency is always a key. Since BCNF requires that every determinant must be a superkey, and our schema meets this requirement, all of our tables are confirmed to be in BCNF.

## 3. Table Creation

### 3.1 Rules

```
CREATE TABLE Rules (
    rule_no VARCHAR(20) NOT NULL,
    vehicle_type VARCHAR(20) NOT NULL,
    description VARCHAR(500) NOT NULL,
    fine_amount DECIMAL(10, 2) NOT NULL,
    CONSTRAINT PK_Rules PRIMARY KEY (rule_no),
    CONSTRAINT CK_Rules_VehicleType CHECK (vehicle_type IN
    ('car', 'motorcycle', 'commercial')),
    CONSTRAINT CK_Rules_FineAmount CHECK (fine_amount >= 0)
);
```

### 3.2 Parking Pass

```
CREATE TABLE ParkingPass (
    pass_UID VARCHAR(20) NOT NULL,
    vehicle_type VARCHAR(20) NOT NULL,
    CONSTRAINT PK_ParkingPass PRIMARY KEY (pass_UID),
    CONSTRAINT CK_ParkingPass_VehicleType CHECK (vehicle_type IN
    ('car', 'motorcycle', 'commercial'))
);
```

### 3.3 Carpark

```
CREATE TABLE Carpark (
    carpark_ID VARCHAR(20) NOT NULL,
    carpark_type VARCHAR(20) NOT NULL,
    free_parking_day VARCHAR(20),
    free_parking_time_range VARCHAR(50),
    night_parking_allowed CHAR(3) NOT NULL,
    totalRevenueSeasonParking DECIMAL(10, 2) NOT NULL DEFAULT
    0.00,
    totalRevenueShortTerm DECIMAL(10, 2) NOT NULL DEFAULT 0.00,
    CONSTRAINT PK_Carpark PRIMARY KEY (carpark_ID),
    CONSTRAINT CK_Carpark_Type CHECK (carpark_type IN ('MSCP',
    'Surface')),
    CONSTRAINT CK_Carpark_NightParking CHECK
    (night_parking_allowed IN ('Yes', 'No'))
```

```
) ;
```

### 3.4 HDB Address

```
CREATE TABLE HDBAddress (
    unit_no VARCHAR(20) NOT NULL,
    postal_code VARCHAR(10) NOT NULL,
    street_name VARCHAR(100) NOT NULL,
    block_no VARCHAR(10) NOT NULL,
    carpark_ID VARCHAR(20),
    CONSTRAINT PK_HDBAddress PRIMARY KEY (unit_no, postal_code),
    CONSTRAINT FK_HDBAddress_Carpark FOREIGN KEY (carpark_ID)
        REFERENCES Carpark(carpark_ID)
        ON DELETE NO ACTION
        ON UPDATE CASCADE
);
```

### 3.5 Person

```
CREATE TABLE Person (
    NRIC VARCHAR(20) NOT NULL,
    name VARCHAR(100) NOT NULL,
    email VARCHAR(100) NOT NULL,
    contact_no VARCHAR(20) NOT NULL,
    unit_no VARCHAR(20) NOT NULL,
    postal_code VARCHAR(10) NOT NULL,
    CONSTRAINT PK_Person PRIMARY KEY (NRIC),
    CONSTRAINT UQ_Person_Email UNIQUE (email),
    CONSTRAINT FK_Person_HDBAddress FOREIGN KEY (unit_no,
    postal_code)
        REFERENCES HDBAddress(unit_no, postal_code)
        ON DELETE NO ACTION
        ON UPDATE CASCADE,
    CONSTRAINT CK_Person_Email CHECK (email LIKE '%@%')
);
```

### 3.6 MSCP

```
CREATE TABLE MSCP (
    carpark_ID VARCHAR(20) NOT NULL,
    clearance_height DECIMAL(4,2) NOT NULL,
    number_of_decks INT NOT NULL,
    CONSTRAINT PK_MSCP PRIMARY KEY (carpark_ID),
    CONSTRAINT FK_MSCP_Carpark FOREIGN KEY (carpark_ID)
        REFERENCES Carpark(carpark_ID)
        ON DELETE CASCADE
        ON UPDATE CASCADE,
    CONSTRAINT CK_MSCP_Height CHECK (clearance_height > 0),
    CONSTRAINT CK_MSCP_Decks CHECK (number_of_decks > 0)
);
```

### 3.7 Includes

```
CREATE TABLE Includes (
    carpark_ID VARCHAR(20) NOT NULL,
    lot_colour VARCHAR(20) NOT NULL,
    lot_count INT NOT NULL,
    CONSTRAINT PK_Includes PRIMARY KEY (carpark_ID, lot_colour),
    CONSTRAINT FK_Includes_Carpark FOREIGN KEY (carpark_ID)
        REFERENCES Carpark(carpark_ID)
        ON DELETE CASCADE
        ON UPDATE CASCADE,
    CONSTRAINT CK_Includes_Colour CHECK (lot_colour IN
    ('Red-White', 'White', 'Yellow', 'Red')),
    CONSTRAINT CK_Includes_Count CHECK (lot_count >= 0)
);
```

### 3.8 Vehicle

```
CREATE TABLE Vehicle (
    VRN VARCHAR(20) NOT NULL,
    priority INT,
    brand VARCHAR(50),
    model VARCHAR(50),
    year_manufactured INT,
    colour VARCHAR(20),
    vehicle_type VARCHAR(20) NOT NULL,
```

```

    owner_NRIC VARCHAR(20) NOT NULL,
    CONSTRAINT PK_Vehicle PRIMARY KEY (VRN),
    CONSTRAINT FK_Vehicle_Person FOREIGN KEY (owner_NRIC)
        REFERENCES Person(NRIC)
        ON DELETE NO ACTION
        ON UPDATE CASCADE,
    CONSTRAINT CK_Vehicle_Type CHECK (vehicle_type IN ('car',
'motorcycle', 'commercial')),
    CONSTRAINT CK_Vehicle_Year CHECK (year_manufactured >= 1900
AND year_manufactured <= YEAR(GETDATE())),
    CONSTRAINT CK_Vehicle_Priority CHECK (priority >= 1)
);

```

### 3.9 OBU

```

CREATE TABLE OBU (
    OBU_ID VARCHAR(20) NOT NULL,
    VRN VARCHAR(20) NOT NULL,
    CONSTRAINT PK_OBU PRIMARY KEY (OBU_ID),
    CONSTRAINT UQ_OBU_VRN UNIQUE (VRN),
    CONSTRAINT FK_OBU_Vehicle FOREIGN KEY (VRN)
        REFERENCES Vehicle(VRN)
        ON DELETE CASCADE
        ON UPDATE CASCADE
);

```

### 3.10 ShortTermParking

```

CREATE TABLE ShortTermParking (
    pass_UID VARCHAR(20) NOT NULL,
    hourly_charges DECIMAL(10, 2) NOT NULL,
    CONSTRAINT PK_ShortTermParking PRIMARY KEY(pass_UID),
    CONSTRAINT FK_ShortTermParking_Pass FOREIGN KEY (pass_UID)
        REFERENCES ParkingPass(pass_UID)
        ON DELETE CASCADE
        ON UPDATE CASCADE,
    CONSTRAINT CK_ShortTermParking_Charges CHECK (hourly_charges
>= 0)

```

```
);
```

### 3.11 SeasonParkingPass

```
CREATE TABLE SeasonParkingPass (
    pass_UID VARCHAR(20) NOT NULL,
    carpark_ID VARCHAR(20) NOT NULL,
    subscription_charges DECIMAL(10, 2) NOT NULL,
    purchaser_NRIC VARCHAR(20) NOT NULL,
    UTR VARCHAR(30) NOT NULL,
    purchaseMonth VARCHAR(20) NOT NULL,
    purchaseYear VARCHAR(4) NOT NULL,
    purchaseTime TIME NOT NULL,
    validityTo DATE NOT NULL,
    amountPaid DECIMAL(10, 2) NOT NULL,
    seasonPassType VARCHAR(20) NOT NULL,
    CONSTRAINT PK_SeasonParkingPass PRIMARY KEY (pass_UID),
    CONSTRAINT UQ_SeasonParkingPass_UTR UNIQUE (UTR),
    CONSTRAINT FK_SeasonParkingPass_Pass FOREIGN KEY (pass_UID)
        REFERENCES ParkingPass(pass_UID)
        ON DELETE NO ACTION
        ON UPDATE NO ACTION,
    CONSTRAINT FK_SeasonParkingPass_Person FOREIGN KEY
    (purchaser_NRIC)
        REFERENCES Person(NRIC)
        ON DELETE NO ACTION
        ON UPDATE NO ACTION,
    CONSTRAINT FK_SeasonParkingPass_Carpark FOREIGN KEY
    (carpark_ID)
        REFERENCES Carpark(carpark_ID)
        ON DELETE NO ACTION
        ON UPDATE NO ACTION,
    CONSTRAINT CK_SeasonParkingPass_SubCharges CHECK
    (subscription_charges >= 0),
    CONSTRAINT CK_SeasonParkingPass_Amount CHECK (amountPaid >=
    0),
    CONSTRAINT CK_SeasonParkingPass_Month CHECK (purchaseMonth IN
    ('January', 'February', 'March', 'April', 'May', 'June', 'July',
    'August', 'September', 'October', 'November', 'December'))
);
```

### 3.12 ParkingOffense

```
CREATE TABLE ParkingOffense (
    NRIC VARCHAR(20) NOT NULL,
    date DATE NOT NULL,
    time TIME NOT NULL,
    VRN VARCHAR(20) NOT NULL,
    rule_no VARCHAR(20) NOT NULL,
    total_fine DECIMAL(10,2) NOT NULL,
    number_of_offenses INT DEFAULT 1,
    CONSTRAINT PK_ParkingOffense PRIMARY KEY (NRIC, date, time,
    VRN),
    CONSTRAINT FK_ParkingOffense_Rules FOREIGN KEY (rule_no)
        REFERENCES Rules(rule_no)
        ON DELETE NO ACTION
        ON UPDATE NO ACTION,
    CONSTRAINT FK_ParkingOffense_Vehicle FOREIGN KEY (VRN)
        REFERENCES Vehicle(VRN)
        ON DELETE NO ACTION
        ON UPDATE NO ACTION,
    CONSTRAINT FK_ParkingOffense_Person FOREIGN KEY (NRIC)
        REFERENCES Person(NRIC)
        ON DELETE NO ACTION
        ON UPDATE NO ACTION,
    CONSTRAINT CK_ParkingOffense_Fine CHECK (total_fine >= 0),
    CONSTRAINT CK_ParkingOffense_Count CHECK (number_of_offenses
    >= 1)
);
```

### 3.13 Entry

```
CREATE TABLE Entry (
    ref_no INT IDENTITY(1,1),
    carpark_ID VARCHAR(20) NOT NULL,
    VRN VARCHAR(20) NOT NULL,
    pass_UID VARCHAR(20) NOT NULL,
    entry_date DATE NOT NULL,
    entry_time TIME NOT NULL,
    CONSTRAINT PK_Entry PRIMARY KEY(ref_no),
    CONSTRAINT FK_Entry_Vehicle FOREIGN KEY (VRN)
        REFERENCES Vehicle(VRN)
```

```

        ON DELETE NO ACTION
        ON UPDATE NO ACTION,
CONSTRAINT FK_Entry_Carpark FOREIGN KEY (carpark_ID)
    REFERENCES Carpark(carpark_ID)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION,
CONSTRAINT FK_Entry_Pass FOREIGN KEY (pass_UID)
    REFERENCES ParkingPass(pass_UID)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION
);

```

### 3.14 Exit

```

CREATE TABLE [Exit] (
    ref_no INT NOT NULL,
    carpark_ID VARCHAR(20) NOT NULL,
    pass_UID VARCHAR(20) NOT NULL,
    exit_date DATE NOT NULL,
    exit_time TIME NOT NULL,
    amount_paid DECIMAL(10,2) DEFAULT 0.00,
    CONSTRAINT PK_Exit PRIMARY KEY (ref_no, exit_date,
exit_time),
    CONSTRAINT FK_Exit_Carpark FOREIGN KEY (carpark_ID)
        REFERENCES Carpark(carpark_ID)
        ON DELETE NO ACTION
        ON UPDATE NO ACTION,
    CONSTRAINT FK_Exit_Entry FOREIGN KEY (ref_no)
        REFERENCES Entry(ref_no)
        ON DELETE NO ACTION
        ON UPDATE NO ACTION,
    CONSTRAINT FK_Exit_Pass FOREIGN KEY (pass_UID)
        REFERENCES ParkingPass(pass_UID)
        ON DELETE NO ACTION
        ON UPDATE NO ACTION,
    CONSTRAINT CK_Exit_Amount CHECK (amount_paid >= 0)
);

```

## 4. Data insertion into tables

### 4.1 Rules

```
INSERT INTO Rules (rule_no, vehicle_type, description, fine_amount) VALUES  
('R01', 'car', 'Parked in reserved lot', 100.00),  
('R02', 'motorcycle', 'Parked in reserved lot', 50.00),  
('R03', 'commercial', 'Parked in reserved lot', 150.00),  
('R04', 'car', 'Parked outside designated space', 80.00),  
('R05', 'motorcycle', 'Parked outside designated space', 40.00),  
('R06', 'commercial', 'Parked outside designated space', 120.00),  
('R07', 'car', 'Double-parked or blocked another vehicle', 90.00),  
('R08', 'motorcycle', 'Double-parked or blocked another vehicle', 45.00),  
('R09', 'commercial', 'Double-parked or blocked another vehicle', 130.00),  
('R10', 'car', 'Parked on sidewalk or fire lane', 100.00),  
('R11', 'motorcycle', 'Parked on sidewalk or fire lane', 50.00),  
('R12', 'commercial', 'Parked on sidewalk or fire lane', 150.00),  
('R13', 'car', 'Exceeded time limit', 60.00),  
('R14', 'motorcycle', 'Exceeded time limit', 30.00),  
('R15', 'commercial', 'Exceeded time limit', 90.00),  
('R16', 'car', 'Exceeded speed limit', 200.00),  
('R17', 'motorcycle', 'Exceeded speed limit', 100.00),  
('R18', 'commercial', 'Exceeded speed limit', 250.00),  
('R19', 'car', 'Drove aggressively or recklessly', 250.00),  
('R20', 'motorcycle', 'Drove aggressively or recklessly', 120.00),  
('R21', 'commercial', 'Drove aggressively or recklessly', 300.00),  
('R22', 'car', 'Did burnouts or skidded', 150.00),  
('R23', 'motorcycle', 'Did burnouts or skidded', 80.00),  
('R24', 'commercial', 'Did burnouts or skidded', 200.00),  
('R25', 'car', 'Drove the wrong way on one-way lane', 100.00),  
('R26', 'motorcycle', 'Drove the wrong way on one-way lane', 50.00),  
('R27', 'commercial', 'Drove the wrong way on one-way lane', 150.00),  
('R28', 'car', 'Ignored stop or yield signs', 80.00),  
('R29', 'motorcycle', 'Ignored stop or yield signs', 40.00),  
('R30', 'commercial', 'Ignored stop or yield signs', 120.00),  
('R31', 'car', 'Blocked entrance, exit, or ramp', 120.00),  
('R32', 'motorcycle', 'Blocked entrance, exit, or ramp', 60.00),  
('R33', 'commercial', 'Blocked entrance, exit, or ramp', 180.00),  
('R34', 'car', 'Failed to yield to pedestrians', 100.00),  
('R35', 'motorcycle', 'Failed to yield to pedestrians', 50.00),  
('R36', 'commercial', 'Failed to yield to pedestrians', 150.00),  
('R37', 'car', 'Used pedestrian-only area as driving lane', 80.00),  
('R38', 'motorcycle', 'Used pedestrian-only area as driving lane', 40.00),  
('R39', 'commercial', 'Used pedestrian-only area as driving lane',  
120.00),  
('R40', 'car', 'Used disabled parking without authorization', 200.00),  
('R41', 'motorcycle', 'Used disabled parking without authorization',  
100.00),
```

```

('R42', 'commercial', 'Used disabled parking without authorization',
250.00),
('R43', 'car', 'Parked overnight without permission', 150.00),
('R44', 'motorcycle', 'Parked overnight without permission', 70.00),
('R45', 'commercial', 'Parked overnight without permission', 200.00),
('R46', 'car', 'Misused carpark facilities or loading zone', 120.00),
('R47', 'motorcycle', 'Misused carpark facilities or loading zone',
60.00),
('R48', 'commercial', 'Misused carpark facilities or loading zone',
180.00);

```

	rule_no	vehicle_type	description	fine_amount
1	R01	car	Parked in reserved lot	100.00
2	R02	motorcycle	Parked in reserved lot	50.00
3	R03	commercial	Parked in reserved lot	150.00
4	R04	car	Parked outside designated space	80.00
5	R05	motorcycle	Parked outside designated space	40.00
6	R06	commercial	Parked outside designated space	120.00
7	R07	car	Double-parked or blocked another vehicle	90.00
8	R08	motorcycle	Double-parked or blocked another vehicle	45.00
9	R09	commercial	Double-parked or blocked another vehicle	130.00
10	R10	car	Parked on sidewalk or fire lane	100.00
11	R11	motorcycle	Parked on sidewalk or fire lane	50.00
12	R12	commercial	Parked on sidewalk or fire lane	150.00
13	R13	car	Exceeded time limit	60.00
14	R14	motorcycle	Exceeded time limit	30.00
15	R15	commercial	Exceeded time limit	90.00
16	R16	car	Exceeded speed limit	200.00
17	R17	motorcycle	Exceeded speed limit	100.00
18	R18	commercial	Exceeded speed limit	250.00
19	R19	car	Drove aggressively or recklessly	250.00
20	R20	motorcycle	Drove aggressively or recklessly	120.00
21	R21	commercial	Drove aggressively or recklessly	300.00
22	R22	car	Did burnouts or skidded	150.00
23	R23	motorcycle	Did burnouts or skidded	80.00
24	R24	commercial	Did burnouts or skidded	200.00
25	R25	car	Drove the wrong way on one-way lane	100.00
26	R26	motorcycle	Drove the wrong way on one-way lane	50.00
27	R27	commercial	Drove the wrong way on one-way lane	150.00
28	R28	car	Ignored stop or yield signs	80.00
29	R29	motorcycle	Ignored stop or yield signs	40.00
30	R30	commercial	Ignored stop or yield signs	120.00
31	R31	car	Blocked entrance, exit, or ramp	120.00
32	R32	motorcycle	Blocked entrance, exit, or ramp	60.00
33	R33	commercial	Blocked entrance, exit, or ramp	180.00

34	R34	car	Failed to yield to pedestrians	100.00
35	R35	motorcycle	Failed to yield to pedestrians	50.00
36	R36	commercial	Failed to yield to pedestrians	150.00
37	R37	car	Used pedestrian-only area as driving lane	80.00
38	R38	motorcycle	Used pedestrian-only area as driving lane	40.00
39	R39	commercial	Used pedestrian-only area as driving lane	120.00
40	R40	car	Used disabled parking without authorization	200.00
41	R41	motorcycle	Used disabled parking without authorization	100.00
42	R42	commercial	Used disabled parking without authorization	250.00
43	R43	car	Parked overnight without permission	150.00
44	R44	motorcycle	Parked overnight without permission	70.00
45	R45	commercial	Parked overnight without permission	200.00
46	R46	car	Misused carpark facilities or loading zone	120.00
47	R47	motorcycle	Misused carpark facilities or loading zone	60.00
48	R48	commercial	Misused carpark facilities or loading zone	180.00

## 4.2 Parking Pass

```

INSERT INTO ParkingPass (pass_UID, vehicle_type) VALUES
('P001', 'car'), ('P002', 'car'), ('P003', 'car'), ('P004', 'car'),
('P005', 'car'), ('P006', 'car'), ('P007', 'car'), ('P008', 'car'),
('P009', 'motorcycle'), ('P010', 'motorcycle'), ('P011', 'motorcycle'),
('P012', 'commercial'), ('P013', 'commercial'), ('P014', 'car'),
('P015', 'car'), ('P016', 'car'), ('P017', 'motorcycle'), ('P018', 'car'),
('P019', 'car'), ('P020', 'car'), ('P021', 'motorcycle'), ('P022', 'car'),
('P023', 'commercial'), ('P024', 'car'), ('P025', 'car'), ('P026', 'car'),

```

('P027', 'motorcycle'), ('P028', 'car'), ('P029', 'car'), ('P030', 'car'),  
('P031', 'motorcycle'), ('P032', 'car'), ('P033', 'commercial'), ('P034',  
'car'),  
('P035', 'car'), ('P036', 'car'), ('P037', 'motorcycle'), ('P038', 'car'),  
('P039', 'car'), ('P040', 'car'),  
('P041', 'car'), ('P042', 'motorcycle'), ('P043', 'commercial'), ('P044',  
'car'),  
('P045', 'car'), ('P046', 'car'), ('P047', 'motorcycle'), ('P048', 'car'),  
('P049', 'commercial'), ('P050', 'car'), ('P051', 'car'), ('P052', 'car'),  
('P053', 'motorcycle'), ('P054', 'car'), ('P055', 'car'), ('P056', 'car'),  
('P057', 'motorcycle'), ('P058', 'car'), ('P059', 'commercial'), ('P060',  
'car'),  
('P061', 'car'), ('P062', 'car'), ('P063', 'motorcycle'), ('P064', 'car'),  
('P065', 'car'), ('P066', 'car'), ('P067', 'motorcycle'), ('P068', 'car'),  
('P069', 'commercial'), ('P070', 'car'), ('P071', 'car'), ('P072', 'car'),  
('P073', 'motorcycle'), ('P074', 'car'), ('P075', 'car'), ('P076', 'car'),  
('P077', 'motorcycle'), ('P078', 'car'), ('P079', 'commercial'), ('P080',  
'car'),  
('P081', 'car'), ('P082', 'car'), ('P083', 'motorcycle'), ('P084', 'car'),  
('P085', 'car'), ('P086', 'car'), ('P087', 'motorcycle'), ('P088', 'car'),  
('P089', 'commercial'), ('P090', 'car'), ('P091', 'car'), ('P092', 'car'),  
('P093', 'motorcycle'), ('P094', 'car'), ('P095', 'car'), ('P096', 'car'),  
('P097', 'motorcycle'), ('P098', 'car'), ('P099', 'commercial'), ('P100',  
'car'), ('P101', 'car'), ('P102', 'car'), ('P103', 'car'), ('P104', 'car'),  
('P105', 'car'), ('P106', 'car'), ('P107', 'car'), ('P108', 'car'),  
('P109', 'car'), ('P110', 'car'), ('P111', 'car'), ('P112', 'car'),  
('P113', 'car'), ('P114', 'car'), ('P115', 'car'), ('P116', 'car'),  
('P117', 'car'), ('P118', 'car'), ('P119', 'car'), ('P120', 'car'),  
('P121', 'car'), ('P122', 'car'), ('P123', 'car'), ('P124', 'car'),  
('P125', 'car'), ('P126', 'car'), ('P127', 'car'), ('P128', 'car'),  
('P129', 'car'), ('P130', 'car'), ('P131', 'car'), ('P132', 'car'),  
('P133', 'car'), ('P134', 'car'), ('P135', 'car'), ('P136', 'car'),  
('P137', 'car'), ('P138', 'car'), ('P139', 'car'), ('P140', 'car'),  
('P141', 'car'), ('P200', 'car'), ('P201', 'car'), ('P202', 'car'),  
('P203', 'car'), ('P204', 'car'), ('P205', 'car'), ('P206', 'car'),  
('P207', 'car'), ('P300', 'car'), ('P301', 'car'), ('P302', 'car'),  
('P303', 'car'), ('P304', 'car'), ('P305', 'car'), ('P306', 'car');

	pass_UID	vehicle_type
1	P001	car
2	P002	car
3	P003	car
4	P004	car
5	P005	car
6	P006	car
7	P007	car
8	P008	car
9	P009	motorcycle
10	P010	motorcycle
11	P011	motorcycle
12	P012	commercial
13	P013	commercial
14	P014	car
15	P015	car
16	P016	car
17	P017	motorcycle
18	P018	car
19	P019	car
20	P020	car
21	P021	motorcycle
22	P022	car
23	P023	commercial
24	P024	car
25	P025	car
26	P026	car
27	P027	motorcycle
28	P028	car
29	P029	car
30	P030	car
31	P031	motorcycle
32	P032	car
33	P033	commercial
34	P034	car
35	P035	car
36	P036	car
37	P037	motorcycle
38	P038	car
39	P039	car
40	P040	car

	pass_UID	vehicle_type
41	P041	car
42	P042	motorcycle
43	P043	commercial
44	P044	car
45	P045	car
46	P046	car
47	P047	motorcycle
48	P048	car
49	P049	commercial
50	P050	car
51	P051	car
52	P052	car
53	P053	motorcycle
54	P054	car
55	P055	car
56	P056	car
57	P057	motorcycle
58	P058	car
59	P059	commercial
60	P060	car
61	P061	car
62	P062	car
63	P063	motorcycle
64	P064	car
65	P065	car
66	P066	car
67	P067	motorcycle
68	P068	car
69	P069	commercial
70	P070	car
71	P071	car
72	P072	car
73	P073	motorcycle
74	P074	car
75	P075	car
76	P076	car
77	P077	motorcycle
78	P078	car
79	P079	commercial
80	P080	car

	pass_UID	vehicle_type
81	P081	car
82	P082	car
83	P083	motorcycle
84	P084	car
85	P085	car
86	P086	car
87	P087	motorcycle
88	P088	car
89	P089	commercial
90	P090	car
91	P091	car
92	P092	car
93	P093	motorcycle
94	P094	car
95	P095	car
96	P096	car
97	P097	motorcycle
98	P098	car
99	P099	commercial
100	P100	car
101	P101	car
102	P102	car
103	P103	car
104	P104	car
105	P105	car
106	P106	car
107	P107	car
108	P108	car
109	P109	car
110	P110	car
111	P111	car
112	P112	car
113	P113	car
114	P114	car
115	P115	car
116	P116	car
117	P117	car
118	P118	car
119	P119	car
120	P120	car
121	P121	car
122	P122	car
123	P123	car
124	P124	car
125	P125	car
126	P126	car
127	P127	car
128	P128	car
129	P129	car
130	P130	car
131	P131	car
132	P132	car
133	P133	car
134	P134	car
135	P135	car
136	P136	car
137	P137	car
138	P138	car
139	P139	car
140	P140	car
141	P141	car
142	P200	car

143	P201	car
144	P202	car
145	P203	car
146	P204	car
147	P205	car
148	P206	car
149	P207	car
150	P300	car
151	P301	car
152	P302	car
153	P303	car
154	P304	car
155	P305	car
156	P306	car

### 4.3 Carpark

```
INSERT INTO Carpark (carpark_ID, carpark_type, free_parking_day,
free_parking_time_range, night_parking_allowed, totalRevenueSeasonParking,
totalRevenueShortTerm) VALUES
('CP001', 'MSCP', 'Sunday', '08:00-18:00', 'Yes', 0.00, 0.00),
('CP002', 'Surface', NULL, NULL, 'No', 0.00, 0.00),
('CP003', 'MSCP', 'Saturday', '10:00-20:00', 'Yes', 0.00, 0.00),
('CP004', 'MSCP', 'Sunday', '09:00-17:00', 'Yes', 0.00, 0.00),
('CP005', 'Surface', 'Saturday', '08:00-12:00', 'No', 0.00, 0.00),
('CP006', 'MSCP', NULL, NULL, 'Yes', 0.00, 0.00),
('CP007', 'Surface', 'Sunday', '10:00-16:00', 'Yes', 0.00, 0.00),
('CP008', 'MSCP', 'Saturday', '08:00-20:00', 'Yes', 0.00, 0.00),
('CP009', 'Surface', NULL, NULL, 'No', 0.00, 0.00),
('CP010', 'MSCP', 'Sunday', '08:00-18:00', 'Yes', 0.00, 0.00),
('CP011', 'Surface', 'Saturday', '09:00-15:00', 'No', 0.00, 0.00),
('CP012', 'MSCP', NULL, NULL, 'Yes', 0.00, 0.00),
('CP013', 'Surface', 'Sunday', '10:00-18:00', 'Yes', 0.00, 0.00),
('CP014', 'MSCP', 'Saturday', '08:00-19:00', 'Yes', 0.00, 0.00),
('CP015', 'Surface', NULL, NULL, 'No', 0.00, 0.00);
```

	carpark_ID	carpark_type	free_parking_day	free_parking_time_range	night_parking_allowed	totalRevenueSeasonParking	totalRevenueShortTerm
1	CP001	MSCP	Sunday	08:00-18:00	Yes	1950.00	57.55
2	CP002	Surface	NULL	NULL	No	630.00	4.25
3	CP003	MSCP	Saturday	10:00-20:00	Yes	835.00	33.35
4	CP004	MSCP	Sunday	09:00-17:00	Yes	240.00	12.35
5	CP005	Surface	Saturday	08:00-12:00	No	150.00	4.40
6	CP006	MSCP	NULL	NULL	Yes	725.00	14.25
7	CP007	Surface	Sunday	10:00-16:00	Yes	0.00	3.05
8	CP008	MSCP	Saturday	08:00-20:00	Yes	525.00	11.35
9	CP009	Surface	NULL	NULL	No	0.00	2.50
10	CP010	MSCP	Sunday	08:00-18:00	Yes	765.00	10.50
11	CP011	Surface	Saturday	09:00-15:00	No	0.00	3.60
12	CP012	MSCP	NULL	NULL	Yes	520.00	12.25
13	CP013	Surface	Sunday	10:00-18:00	Yes	0.00	3.60
14	CP014	MSCP	Saturday	08:00-19:00	Yes	0.00	11.60
15	CP015	Surface	NULL	NULL	No	0.00	0.65

#### 4.4 HDB Address

```

INSERT INTO HDBAddress (unit_no, postal_code, street_name, block_no,
carpark_ID) VALUES
('01-101', '640101', 'Jurong West Street 61', '101', 'CP001'),
('02-205', '640101', 'Jurong West Street 61', '101', 'CP001'),
('05-308', '640102', 'Jurong West Street 61', '102', 'CP001'),
('07-412', '640103', 'Jurong West Street 61', '103', 'CP001'),
('03-201', '640201', 'Jurong West Street 62', '201', 'CP002'),
('04-305', '640202', 'Jurong West Street 62', '202', 'CP002'),
('06-409', '640203', 'Jurong West Street 62', '203', 'CP002'),
('08-510', '640204', 'Jurong West Street 62', '204', 'CP002'),
('01-102', '640301', 'Jurong West Avenue 1', '301', 'CP003'),
('02-206', '640302', 'Jurong West Avenue 1', '302', 'CP003'),
('03-310', '640303', 'Jurong West Avenue 1', '303', 'CP003'),
('04-414', '640304', 'Jurong West Avenue 1', '304', 'CP003'),
('05-501', '640401', 'Jurong West Avenue 2', '401', 'CP004'),
('06-605', '640402', 'Jurong West Avenue 2', '402', 'CP004'),
('07-709', '640403', 'Jurong West Avenue 2', '403', 'CP004'),
('08-813', '640404', 'Jurong West Avenue 2', '404', 'CP004'),
('01-103', '640501', 'Jurong West Street 51', '501', 'CP005'),
('02-207', '640502', 'Jurong West Street 51', '502', 'CP005'),
('03-311', '640503', 'Jurong West Street 51', '503', 'CP005'),
('04-415', '640504', 'Jurong West Street 51', '504', 'CP005'),
('05-601', '640601', 'Jurong West Street 52', '601', 'CP006'),
('06-705', '640602', 'Jurong West Street 52', '602', 'CP006'),
('07-809', '640603', 'Jurong West Street 52', '603', 'CP006'),
('08-913', '640604', 'Jurong West Street 52', '604', 'CP006'),
('01-104', '640701', 'Jurong West Street 63', '701', 'CP007'),
('02-208', '640702', 'Jurong West Street 63', '702', 'CP007'),
('03-312', '640703', 'Jurong West Street 63', '703', 'CP007'),
('04-416', '640704', 'Jurong West Street 63', '704', 'CP007'),
('05-701', '640801', 'Jurong West Street 64', '801', 'CP008'),
('06-805', '640802', 'Jurong West Street 64', '802', 'CP008'),
('07-909', '640803', 'Jurong West Street 64', '803', 'CP008'),

```

```

('08-1013', '640804', 'Jurong West Street 64', '804', 'CP008'),
('01-105', '640901', 'Jurong West Avenue 3', '901', 'CP009'),
('02-209', '640902', 'Jurong West Avenue 3', '902', 'CP009'),
('03-313', '640903', 'Jurong West Avenue 3', '903', 'CP009'),
('04-417', '640904', 'Jurong West Avenue 3', '904', 'CP009'),
('05-801', '641001', 'Jurong West Avenue 4', '1001', 'CP010'),
('06-905', '641002', 'Jurong West Avenue 4', '1002', 'CP010'),
('07-1009', '641003', 'Jurong West Avenue 4', '1003', 'CP010'),
('08-1113', '641004', 'Jurong West Avenue 4', '1004', 'CP010'),
('01-106', '641101', 'Jurong West Street 65', '1101', 'CP011'),
('02-210', '641102', 'Jurong West Street 65', '1102', 'CP011'),
('03-314', '641103', 'Jurong West Street 65', '1103', 'CP011'),
('04-418', '641104', 'Jurong West Street 65', '1104', 'CP011'),
('09-1201', '641201', 'Jurong West Street 66', '1201', 'CP012'),
('10-1305', '641202', 'Jurong West Street 66', '1202', 'CP012'),
('11-1409', '641301', 'Jurong West Avenue 5', '1301', 'CP013'),
('12-1513', '641302', 'Jurong West Avenue 5', '1302', 'CP013');

```

	unit_no	postal_code	street_name	block_no	carpark_ID
1	01-101	640101	Jurong West Street 61	101	CP001
2	01-102	640301	Jurong West Avenue 1	301	CP003
3	01-103	640501	Jurong West Street 51	501	CP005
4	01-104	640701	Jurong West Street 63	701	CP007
5	01-105	640901	Jurong West Avenue 3	901	CP009
6	01-106	641101	Jurong West Street 65	1101	CP011
7	02-205	640101	Jurong West Street 61	101	CP001
8	02-206	640302	Jurong West Avenue 1	302	CP003
9	02-207	640502	Jurong West Street 51	502	CP005
10	02-208	640702	Jurong West Street 63	702	CP007
11	02-209	640902	Jurong West Avenue 3	902	CP009
12	02-210	641102	Jurong West Street 65	1102	CP011
13	03-201	640201	Jurong West Street 62	201	CP002
14	03-310	640303	Jurong West Avenue 1	303	CP003
15	03-311	640503	Jurong West Street 51	503	CP005
16	03-312	640703	Jurong West Street 63	703	CP007
17	03-313	640903	Jurong West Avenue 3	903	CP009
18	03-314	641103	Jurong West Street 65	1103	CP011
19	04-305	640202	Jurong West Street 62	202	CP002
20	04-414	640304	Jurong West Avenue 1	304	CP003
21	04-415	640504	Jurong West Street 51	504	CP005
22	04-416	640704	Jurong West Street 63	704	CP007
23	04-417	640904	Jurong West Avenue 3	904	CP009
24	04-418	641104	Jurong West Street 65	1104	CP011
25	05-308	640102	Jurong West Street 61	102	CP001
26	05-501	640401	Jurong West Avenue 2	401	CP004
27	05-601	640601	Jurong West Street 52	601	CP006
28	05-701	640801	Jurong West Street 64	801	CP008
29	05-801	641001	Jurong West Avenue 4	1001	CP010
30	06-409	640203	Jurong West Street 62	203	CP002

31	06-605	640402	Jurong West Avenue 2	402	CP004
32	06-705	640602	Jurong West Street 52	602	CP006
33	06-805	640802	Jurong West Street 64	802	CP008
34	06-905	641002	Jurong West Avenue 4	1002	CP010
35	07-10...	641003	Jurong West Avenue 4	1003	CP010
36	07-412	640103	Jurong West Street 61	103	CP001
37	07-709	640403	Jurong West Avenue 2	403	CP004
38	07-809	640603	Jurong West Street 52	603	CP006
39	07-909	640803	Jurong West Street 64	803	CP008
40	08-10...	640804	Jurong West Street 64	804	CP008
41	08-11...	641004	Jurong West Avenue 4	1004	CP010
42	08-510	640204	Jurong West Street 62	204	CP002
43	08-813	640404	Jurong West Avenue 2	404	CP004
44	08-913	640604	Jurong West Street 52	604	CP006
45	09-12...	641201	Jurong West Street 66	1201	CP012
46	10-13...	641202	Jurong West Street 66	1202	CP012
47	11-14...	641301	Jurong West Avenue 5	1301	CP013
48	12-15...	641302	Jurong West Avenue 5	1302	CP013

## 4.5 Person

```

INSERT INTO Person (NRIC, name, email, contact_no, unit_no, postal_code)
VALUES
('S1234567A', 'John Tan Wei Ming', 'john.tan@email.com', '91234567',
'01-101', '640101'),
('S2345678B', 'Mary Lim Siew Hua', 'mary.lim@email.com', '92345678',
'02-205', '640101'),

```

('S3456789C', 'David Wong Kai Seng', 'david.wong@email.com', '93456789',  
'01-102', '640301'),  
(('S4567890D', 'Sarah Lee Mei Ling', 'sarah.lee@email.com', '94567890',  
'03-201', '640201'),  
(('S5678901E', 'Michael Chen Jie', 'michael.chen@email.com', '95678901',  
'05-308', '640102'),  
(('S6789012F', 'Jennifer Ng Hui Min', 'jennifer.ng@email.com', '96789012',  
'02-206', '640302'),  
(('S7890123G', 'Robert Teo Boon Kiat', 'robert.teo@email.com', '97890123',  
'05-501', '640401'),  
(('S8901234H', 'Emily Koh Li Ying', 'emily.koh@email.com', '98901234',  
'04-305', '640202'),  
(('S9012345I', 'Daniel Lau Wei Jie', 'daniel.lau@email.com', '99012345',  
'06-605', '640402'),  
(('S0123456J', 'Michelle Tan Xin Yi', 'michelle.tan@email.com', '90123456',  
'01-103', '640501'),  
(('S1234568K', 'Steven Ong Zheng Wei', 'steven.ong@email.com', '91234568',  
'03-310', '640303'),  
(('S2345679L', 'Angela Lim Hui Xian', 'angela.lim@email.com', '92345679',  
'05-601', '640601'),  
(('S3456780M', 'Kevin Tan Jun Hao', 'kevin.tan@email.com', '93456780',  
'07-412', '640103'),  
(('S4567891N', 'Rachel Wong Li Qin', 'rachel.wong@email.com', '94567891',  
'04-414', '640304'),  
(('S5678902O', 'Andrew Ng Wei Lun', 'andrew.ng@email.com', '95678902',  
'06-409', '640203'),  
(('S6789013P', 'Stephanie Lee Jia Yi', 'stephanie.lee@email.com',  
'96789013', '02-207', '640502'),  
(('S7890124Q', 'Jason Lim Kai Ming', 'jason.lim@email.com', '97890124',  
'07-709', '640403'),  
(('S8901235R', 'Nicole Chen Hui Ting', 'nicole.chen@email.com', '98901235',  
'06-705', '640602'),  
(('S9012346S', 'Brian Teo Jun Wei', 'brian.teo@email.com', '99012346',  
'01-104', '640701'),  
(('S0123457T', 'Amanda Koh Xin Ru', 'amanda.koh@email.com', '90123457',  
'08-510', '640204'),  
(('S1234569U', 'Eric Lau Zhi Hong', 'eric.lau@email.com', '91234569',  
'03-311', '640503'),  
(('S2345670V', 'Samantha Tan Yi Ling', 'samantha.tan@email.com',  
'92345670', '07-809', '640603'),  
(('S3456781W', 'Marcus Ong Jun Kai', 'marcus.ong@email.com', '93456781',  
'05-701', '640801'),  
(('S4567892X', 'Vivian Lim Mei Xuan', 'vivian.lim@email.com', '94567892',  
'02-208', '640702'),  
(('S5678903Y', 'Brandon Wong Wei Kang', 'brandon.wong@email.com',  
'95678903', '08-813', '640404'),  
(('S6789014Z', 'Crystal Ng Hui En', 'crystal.ng@email.com', '96789014',  
'04-415', '640504'),

('S7890125A', 'Justin Tan Zhi Wei', 'justin.tan@email.com', '97890125',  
'06-805', '640802'),  
(('S8901236B', 'Hannah Lee Jia Wen', 'hannah.lee@email.com', '98901236',  
'08-913', '640604'),  
(('S9012347C', 'Ryan Lim Jun Heng', 'ryan.lim@email.com', '99012347',  
'03-312', '640703'),  
(('S0123458D', 'Melissa Chen Xin Ying', 'melissa.chen@email.com',  
'90123458', '07-909', '640803'),  
(('S1234560E', 'Nicholas Teo Wei Ming', 'nicholas.teo@email.com',  
'91234560', '01-105', '640901'),  
(('S2345671F', 'Grace Koh Li Hui', 'grace.koh@email.com', '92345671',  
'08-1013', '640804'),  
(('S3456782G', 'Christopher Lau Jun Xiang', 'christopher.lau@email.com',  
'93456782', '05-801', '641001'),  
(('S4567893H', 'Olivia Tan Hui Qing', 'olivia.tan@email.com', '94567893',  
'02-209', '640902'),  
(('S5678904I', 'Jonathan Ong Kai Wen', 'jonathan.ong@email.com',  
'95678904', '06-905', '641002'),  
(('S6789015J', 'Chloe Lim Yi Xuan', 'chloe.lim@email.com', '96789015',  
'04-416', '640704'),  
(('S7890126K', 'Benjamin Wong Jun Wei', 'benjamin.wong@email.com',  
'97890126', '07-1009', '641003'),  
(('S8901237L', 'Sophia Ng Jia Hui', 'sophia.ng@email.com', '98901237',  
'04-417', '640904'),  
(('S9012348M', 'Aaron Tan Zhi Hao', 'aaron.tan@email.com', '99012348',  
'01-106', '641101'),  
(('S0123459N', 'Isabella Lee Xin Yi', 'isabella.lee@email.com', '90123459',  
'08-1113', '641004'),  
(('S1234561O', 'Nathan Lim Wei Jie', 'nathan.lim@email.com', '91234561',  
'02-210', '641102'),  
(('S2345672P', 'Abigail Chen Li Ying', 'abigail.chen@email.com',  
'92345672', '09-1201', '641201'),  
(('S3456783Q', 'Samuel Teo Jun Hao', 'samuel.teo@email.com', '93456783',  
'03-313', '640903'),  
(('S4567894R', 'Natalie Koh Hui Min', 'natalie.koh@email.com', '94567894',  
'10-1305', '641202'),  
(('S5678905S', 'Matthew Lau Kai Ming', 'matthew.lau@email.com', '95678905',  
'03-314', '641103'),  
(('S6789016T', 'Emma Tan Jia Xuan', 'emma.tan@email.com', '96789016',  
'11-1409', '641301'),  
(('S7890127U', 'Joshua Ong Wei Lun', 'joshua.ong@email.com', '97890127',  
'04-418', '641104'),  
(('S8901238V', 'Ava Lim Xin Ru', 'ava.lim@email.com', '98901238',  
'12-1513', '641302'),  
(('S9012349W', 'Ethan Wong Zhi Hong', 'ethan.wong@email.com', '99012349',  
'07-412', '640103'),  
(('S0123450X', 'Mia Ng Yi Ling', 'mia.ng@email.com', '90123450', '04-414',  
'640304');

	NRIC	name	email	contact_no	unit_no	postal_code
1	S0123450X	Mia Ng Yi Ling	mia.ng@email.com	90123450	04-414	640304
2	S0123456J	Michelle Tan Xin Yi	michelle.tan@email.com	90123456	01-103	640501
3	S0123457T	Amanda Koh Xin Ru	amanda.koh@email.com	90123457	08-510	640204
4	S0123458D	Melissa Chen Xin Ying	melissa.chen@email.com	90123458	07-908	640803
5	S0123459N	Isabella Lee Xin Yi	isabella.lee@email.com	90123459	08-113	641004
6	S1234560E	Nicholas Teo Wei Ming	nicholas.teo@email.com	91234560	01-105	640901
7	S1234561O	Nathan Lim Wei Jie	nathan.lim@email.com	91234561	02-210	641102
8	S1234567A	John Tan Wei Ming	john.tan@email.com	91234567	01-101	640101
9	S1234568K	Steven Ong Zheng Wei	steven.ong@email.com	91234568	03-310	640303
10	S1234569U	Eric Lau Zhi Hong	eric.lau@email.com	91234569	03-311	640503
11	S2345670V	Samantha Tan YI Ling	samantha.tan@email.com	92345670	07-809	640603
12	S2345671F	Grace Koh Li Hui	grace.koh@email.com	92345671	08-103	640804
13	S2345672P	Abigail Chen Li Ying	abigail.chen@email.com	92345672	09-1201	641201
14	S2345678B	Mary Lim Siew Hua	mary.lim@email.com	92345678	02-205	640101
15	S2345679L	Angela Lim Hui Xian	angela.lim@email.com	92345679	05-601	640601
16	S3456780M	Kevin Tan Jun Hao	kevin.tan@email.com	93456780	07-412	640103
17	S3456781W	Marcus Ong Jun Kai	marcus.ong@email.com	93456781	05-701	640801
18	S3456782O	Christopher Lau Jun Xiang	christopher.lau@email.com	93456782	05-801	641001
19	S3456783Q	Samuel Teo Jun Hao	samuel.teo@email.com	93456783	03-313	640903
20	S3456789C	David Wong Kai Seng	david.wong@email.com	93456789	01-102	640301
21	S4567890D	Sarah Lee Mei Ling	sarah.lee@email.com	94567890	03-201	640201
22	S4567891N	Rachel Wong Li Qin	rachel.wong@email.com	94567891	04-414	640304
23	S4567892X	Vivian Lim Mei Xuan	vivian.lim@email.com	94567892	02-208	640702
24	S4567893H	Olivia Tan Hui Qing	olivia.tan@email.com	94567893	02-209	640902
25	S4567894R	Natalie Koh Hui Min	natalie.koh@email.com	94567894	10-1305	641202
26	S5678901E	Michael Chen Jie	michael.chen@email.com	95678901	05-308	640102
27	S5678902O	Andrew Ng Wei Lun	andrew.ng@email.com	95678902	06-409	640203
28	S5678903Y	Brandon Wong Wei Kang	brandon.wong@email.com	95678903	08-813	640404
29	S5678904I	Jonathan Ong Kai Wen	jonathan.ong@email.com	95678904	06-905	641002
30	S5678905S	Matthew Lau Kai Ming	matthew.lau@email.com	95678905	03-314	641103
31	S6789012F	Jennifer Ng Hui Min	jennifer.ng@email.com	96789012	02-206	640302
32	S6789013P	Stephanie Lee Jia Yi	stephanie.lee@email.com	96789013	02-207	640902
33	S6789014Z	Crystal Ng Hui En	crystal.ng@email.com	96789014	04-415	640504
34	S6789015J	Chloe Lim Yi Xuan	chloe.lim@email.com	96789015	04-416	640704
35	S6789016T	Emma Tan Jia Xuan	emma.tan@email.com	96789016	11-1409	641301
36	S7890123G	Robert Teo Boon Kiat	robert.teo@email.com	97890123	05-501	640401
37	S7890124Q	Jason Lim Kai Ming	jason.lim@email.com	97890124	07-709	640403
38	S7890125A	Justin Tan Zhi Wei	justin.tan@email.com	97890125	06-805	640802
39	S7890126K	Benjamin Wong Jun Wei	benjamin.wong@email.c...	97890126	07-1009	641003
40	S7890127U	Joshua Ong Wei Lun	joshua.ong@email.com	97890127	04-418	641104
41	S8901234H	Emily Koh Li Ying	emily.koh@email.com	98901234	04-305	640202
42	S8901235R	Nicole Chen Hui Ting	nicole.chen@email.com	98901235	06-705	640602
43	S8901236B	Hannah Lee Jia Wen	hannah.lee@email.com	98901236	08-913	640604
44	S8901237L	Sophia Ng Jia Hui	sophia.ng@email.com	98901237	04-417	640904
45	S8901238V	Ava Lim Xiu Ru	ava.lim@email.com	98901238	12-1513	641302
46	S9012345I	Daniel Lau Wei Jie	daniel.lau@email.com	99012345	06-605	640402
47	S9012346S	Brian Teo Jun Wei	brian.teo@email.com	99012346	01-104	640701
48	S9012347C	Ryan Lim Jun Heng	ryan.lim@email.com	99012347	03-312	640703
49	S9012348M	Aaron Tan Zhi Hao	aaron.tan@email.com	99012348	01-106	641101
50	S9012349W	Ethan Wong Zhi Hong	ethan.wong@email.com	99012349	07-412	640103

## 4.6 MSCP

```
INSERT INTO MSCP (carpark_ID, clearance_height, number_of_decks) VALUES
('CP001', 2.10, 5),
('CP003', 2.40, 7),
('CP004', 2.20, 6),
('CP006', 2.50, 8),
('CP008', 2.30, 5),
('CP010', 2.15, 4),
('CP012', 2.45, 9),
('CP014', 2.25, 6);
```

	carpark_ID	clearance_height	number_of_decks
1	CP001	2.10	5
2	CP003	2.40	7
3	CP004	2.20	6
4	CP006	2.50	8
5	CP008	2.30	5
6	CP010	2.15	4
7	CP012	2.45	9
8	CP014	2.25	6

## 4.7 Includes

```
INSERT INTO Includes (carpark_ID, lot_colour, lot_count) VALUES
('CP001', 'White', 50), ('CP001', 'Red-White', 20), ('CP001', 'Yellow',
15),
('CP002', 'White', 30), ('CP002', 'Yellow', 10),
('CP003', 'White', 100), ('CP003', 'Red', 15), ('CP003', 'Red-White', 25),
```

```

('CP004', 'White', 80), ('CP004', 'Yellow', 20), ('CP004', 'Red-White',
15),
('CP005', 'White', 25), ('CP005', 'Yellow', 8),
('CP006', 'White', 120), ('CP006', 'Red', 20), ('CP006', 'Red-White', 30),
('CP007', 'White', 35), ('CP007', 'Yellow', 12),
('CP008', 'White', 90), ('CP008', 'Red-White', 25), ('CP008', 'Yellow',
18),
('CP009', 'White', 28), ('CP009', 'Yellow', 10),
('CP010', 'White', 60), ('CP010', 'Red-White', 18), ('CP010', 'Red', 10),
('CP011', 'White', 32), ('CP011', 'Yellow', 11),
('CP012', 'White', 150), ('CP012', 'Red', 25), ('CP012', 'Red-White', 40),
('CP013', 'White', 40), ('CP013', 'Yellow', 15),
('CP014', 'White', 95), ('CP014', 'Red-White', 28), ('CP014', 'Yellow',
20),
('CP015', 'White', 30), ('CP015', 'Yellow', 9);

```

	carpark_ID	lot_colour	lot_count
1	CP001	Red-White	20
2	CP001	White	50
3	CP001	Yellow	15
4	CP002	White	30
5	CP002	Yellow	10
6	CP003	Red	15
7	CP003	Red-White	25
8	CP003	White	100
9	CP004	Red-White	15
10	CP004	White	80
11	CP004	Yellow	20
12	CP005	White	25
13	CP005	Yellow	8
14	CP006	Red	20
15	CP006	Red-White	30
16	CP006	White	120
17	CP007	White	35
18	CP007	Yellow	12
19	CP008	Red-White	25
20	CP008	White	90

21	CP008	Yellow	18
22	CP009	White	28
23	CP009	Yellow	10
24	CP010	Red	10
25	CP010	Red-White	18
26	CP010	White	60
27	CP011	White	32
28	CP011	Yellow	11
29	CP012	Red	25
30	CP012	Red-White	40
31	CP012	White	150
32	CP013	White	40
33	CP013	Yellow	15
34	CP014	Red-White	28
35	CP014	White	95
36	CP014	Yellow	20
37	CP015	White	30
38	CP015	Yellow	9

## 4.8 Vehicle

```
INSERT INTO Vehicle (VRN, priority, brand, model, year_manufactured,
colour, vehicle_type, owner_NRIC) VALUES
('SBA1234A', 1, 'Toyota', 'Corolla', 2020, 'White', 'car', 'S1234567A'),
('SBB5678Z', 1, 'Honda', 'Civic', 2019, 'Black', 'car', 'S2345678B'),
('FBA9999E', 1, 'Yamaha', 'MT-07', 2021, 'Blue', 'motorcycle',
'S3456789C'),
('GBA4321X', 1, 'Isuzu', 'D-Max', 2018, 'Silver', 'commercial',
'S4567890D'),
('SBC7890M', 1, 'Mazda', 'CX-5', 2022, 'Red', 'car', 'S5678901E'),
('SBD1234N', 1, 'Nissan', 'Qashqai', 2020, 'Blue', 'car', 'S6789012F'),
('FBB2345P', 1, 'Kawasaki', 'Ninja', 2022, 'Green', 'motorcycle',
'S7890123G'),
('SBE3456Q', 1, 'Volkswagen', 'Golf', 2021, 'Grey', 'car', 'S8901234H'),
('GBB5678R', 1, 'Mitsubishi', 'L300', 2019, 'White', 'commercial',
'S9012345I'),
('SBF6789S', 1, 'Hyundai', 'Tucson', 2020, 'Black', 'car', 'S0123456J'),
('SBG7890T', 1, 'Kia', 'Sportage', 2021, 'Silver', 'car', 'S1234568K'),
('FBC3456U', 1, 'Suzuki', 'GSX-R', 2020, 'Red', 'motorcycle',
'S2345679L'),
('SBH8901V', 1, 'Subaru', 'Forester', 2022, 'Blue', 'car', 'S3456780M'),
('SBI9012W', 1, 'BMW', '320i', 2019, 'White', 'car', 'S4567891N'),
('GBC6789X', 1, 'Toyota', 'Hiace', 2020, 'Silver', 'commercial',
'S5678902O'),
('SBJ0123Y', 1, 'Mercedes', 'C200', 2021, 'Black', 'car', 'S6789013P'),
('SBK1234Z', 1, 'Audi', 'A4', 2020, 'Grey', 'car', 'S7890124Q'),
('FBD4567A', 1, 'Honda', 'CB650R', 2022, 'Red', 'motorcycle',
'S8901235R'),
('SBL2345B', 1, 'Lexus', 'RX350', 2021, 'White', 'car', 'S9012346S'),
('SBM3456C', 1, 'Volvo', 'XC60', 2020, 'Blue', 'car', 'S0123457T'),
('SBN4567D', 2, 'Toyota', 'Vios', 2018, 'Silver', 'car', 'S1234567A'),
('FBE5678E', 2, 'Yamaha', 'FZ-09', 2019, 'Black', 'motorcycle',
'S2345678B'),
('SBO5678F', 2, 'Honda', 'Jazz', 2020, 'Red', 'car', 'S5678901E'),
('SBP6789G', 2, 'Nissan', 'Almera', 2019, 'White', 'car', 'S6789012F'),
('FBF6789H', 2, 'Kawasaki', 'Z650', 2021, 'Green', 'motorcycle',
'S7890123G'),
('SBQ7890I', 2, 'Mazda', '3', 2020, 'Blue', 'car', 'S1234568K'),
('SBR8901J', 2, 'Volkswagen', 'Polo', 2019, 'Grey', 'car', 'S2345679L'),
('GBD7890K', 2, 'Isuzu', 'NLR', 2020, 'White', 'commercial', 'S4567890D'),
('SBS9012L', 3, 'Kia', 'Picanto', 2018, 'Red', 'car', 'S1234567A'),
('SBT0123M', 3, 'Hyundai', 'i10', 2019, 'Silver', 'car', 'S5678901E'),
('SBU1234N', 3, 'Toyota', 'Camry', 2021, 'Black', 'car', 'S1234569U'),
('SBV2345O', 3, 'Honda', 'Accord', 2020, 'White', 'car', 'S2345670V'),
('FBG7890P', 3, 'Suzuki', 'V-Strom', 2019, 'Blue', 'motorcycle',
'S3456781W'),
('SBW3456Q', 3, 'Nissan', 'Sentra', 2021, 'Grey', 'car', 'S4567892X'),
```

('GBE8901R', 3, 'Mitsubishi', 'Canter', 2020, 'Silver', 'commercial',  
'S5678903Y'),  
(('SBX4567S', 3, 'Mazda', '2', 2019, 'Red', 'car', 'S6789014Z'),  
(('SBY5678T', 3, 'Volkswagen', 'Jetta', 2021, 'White', 'car', 'S7890125A'),  
(('FBH8901U', 3, 'Honda', 'CBR600', 2020, 'Black', 'motorcycle',  
'S8901236B'),  
(('SBZ6789V', 3, 'Hyundai', 'Elantra', 2019, 'Blue', 'car', 'S9012347C'),  
(('SCA7890W', 3, 'Kia', 'Cerato', 2021, 'Grey', 'car', 'S0123458D'),  
(('FBI9012X', 3, 'Yamaha', 'R6', 2020, 'Red', 'motorcycle', 'S1234560E'),  
(('SCB8901Y', 3, 'Toyota', 'Yaris', 2019, 'Silver', 'car', 'S2345671F'),  
(('GBF9012Z', 3, 'Toyota', 'Dyna', 2020, 'White', 'commercial',  
'S3456782G'),  
(('SCC9012A', 3, 'Honda', 'City', 2021, 'Black', 'car', 'S4567893H'),  
(('SCD0123B', 3, 'Nissan', 'Juke', 2020, 'Blue', 'car', 'S5678904I'),  
(('FBJ0123C', 3, 'Kawasaki', 'Versys', 2019, 'Green', 'motorcycle',  
'S6789015J'),  
(('SCE1234D', 3, 'Mazda', 'CX-3', 2021, 'White', 'car', 'S7890126K'),  
(('SCF2345E', 3, 'Volkswagen', 'Tiguan', 2020, 'Grey', 'car', 'S8901237L'),  
(('SCG3456F', 3, 'Hyundai', 'Kona', 2019, 'Red', 'car', 'S9012348M'),  
(('FBK3456G', 3, 'Suzuki', 'Bandit', 2021, 'Blue', 'motorcycle',  
'S0123459N'),  
(('SCH4567H', 3, 'Kia', 'Seltos', 2020, 'Silver', 'car', 'S12345610'),  
(('GBG1234I', 3, 'Isuzu', 'ELF', 2019, 'White', 'commercial', 'S2345672P'),  
(('SCI5678J', 3, 'Toyota', 'Rush', 2021, 'Black', 'car', 'S3456783Q'),  
(('SCJ6789K', 3, 'Honda', 'HR-V', 2020, 'Blue', 'car', 'S4567894R'),  
(('SCK7890L', 3, 'Nissan', 'Kicks', 2019, 'White', 'car', 'S5678905S'),  
(('FBL4567M', 3, 'Honda', 'NC750X', 2021, 'Red', 'motorcycle',  
'S6789016T'),  
(('SCL8901N', 3, 'Mazda', 'CX-8', 2020, 'Grey', 'car', 'S7890127U'),  
(('SCM9012O', 3, 'Volkswagen', 'Passat', 2019, 'Silver', 'car',  
'S8901238V'),  
(('FBM5678P', 3, 'Yamaha', 'Tracer', 2021, 'Black', 'motorcycle',  
'S9012349W'),  
(('SCN0123Q', 3, 'Hyundai', 'Sonata', 2020, 'Blue', 'car', 'S0123450X'),  
(('SCO1234R', 1, 'Kia', 'Sorento', 2021, 'White', 'car', 'S3456780M'),  
(('SCP2345S', 1, 'Toyota', 'Fortuner', 2020, 'Black', 'car', 'S4567891N'),  
(('SCQ3456T', 1, 'Honda', 'CR-V', 2022, 'Silver', 'car', 'S56789020'),  
(('FBN6789U', 1, 'Kawasaki', 'Ninja 650', 2021, 'Green', 'motorcycle',  
'S6789013P'),  
(('SCR4567V', 1, 'Nissan', 'X-Trail', 2020, 'Blue', 'car', 'S7890124Q'),  
(('SCS5678W', 1, 'Mazda', 'CX-9', 2021, 'Grey', 'car', 'S8901235R'),  
(('GBH2345X', 1, 'Mitsubishi', 'Fuso', 2019, 'White', 'commercial',  
'S9012346S'),  
(('SCT6789Y', 1, 'Volkswagen', 'Arteon', 2022, 'Black', 'car',  
'S0123457T'),  
(('SCU7890Z', 1, 'Hyundai', 'Palisade', 2021, 'Silver', 'car',  
'S1234569U'))

```

('FBO7890A', 1, 'Suzuki', 'Hayabusa', 2020, 'Red', 'motorcycle',
'S2345670V'),
('SCV8901B', 1, 'Kia', 'Carnival', 2021, 'White', 'car', 'S3456781W'),
('SCW9012C', 1, 'Toyota', 'Alphard', 2022, 'Black', 'car', 'S4567892X'),
('GBI3456D', 1, 'Toyota', 'Coaster', 2020, 'White', 'commercial',
'S5678903Y'),
('SCX0123E', 1, 'Honda', 'Odyssey', 2021, 'Blue', 'car', 'S6789014Z');

```

VRN	priority	brand	model	year_manufactured	colour	vehicle_type	owner_NRIC
1	FBA9999E	1	Yamaha	MT-07	2021	Blue	motorcycle
2	FBB2345P	1	Kawasaki	Ninja	2022	Green	motorcycle
3	FBC3456U	1	Suzuki	GSX-R	2020	Red	motorcycle
4	FBD4567A	1	Honda	C8650R	2022	Red	motorcycle
5	FBE5678E	2	Yamaha	FZ-09	2019	Black	motorcycle
6	FBF6789H	2	Kawasaki	Z650	2021	Green	motorcycle
7	FBG7890P	3	Suzuki	V-Strom	2019	Blue	motorcycle
8	FBIH901U	3	Honda	CBR600	2020	Black	motorcycle
9	FBII901Z	3	Yamaha	R6	2020	Red	motorcycle
10	FBJ0123C	3	Kawasaki	Versys	2019	Green	motorcycle
11	FBK3456G	3	Suzuki	Bandit	2021	Blue	motorcycle
12	FBL4567M	3	Honda	NC750X	2021	Red	motorcycle
13	FBM5678P	3	Yamaha	Tracer	2021	Black	motorcycle
14	FBN6789U	1	Kawasaki	Ninja 650	2021	Green	motorcycle
15	FBOT890A	1	Suzuki	Hayabusa	2020	Red	motorcycle
16	GBA4321X	1	Isuzu	D-Max	2018	Silver	commercial
17	GBB5678R	1	Mitsubishi	L300	2019	White	commercial
18	GBC6789X	1	Toyota	Hiace	2020	Silver	commercial
19	GBD7890K	2	Isuzu	NLR	2020	White	commercial
20	GBE8901R	3	Mitsubishi	Canter	2020	Silver	commercial
21	GBF9012Z	3	Toyota	Dyna	2020	White	commercial
22	GBG1234I	3	Isuzu	ELF	2019	White	commercial
23	GBH2345X	1	Mitsubishi	Fuso	2019	White	commercial
24	GBI3456D	1	Toyota	Coaster	2020	White	commercial
25	SBA1234A	1	Toyota	Corolla	2020	White	car
26	SBB5678Z	1	Honda	Civic	2019	Black	car
27	SBC7890M	1	Mazda	CX-5	2022	Red	car
28	SBD1234N	1	Nissan	Qashqai	2020	Blue	car
29	SBE3456Q	1	Volkswa...	Golf	2021	Grey	car
30	SBF6789S	1	Hyundai	Tucson	2020	Black	car
31	SBG7890T	1	Kia	Sportage	2021	Silver	car
32	SBH8901V	1	Subaru	Forester	2022	Blue	car
33	SBH9012W	1	BMW	320i	2019	White	car
34	SBJ0123Y	1	Mercedes	C200	2021	Black	car
35	SBK1234Z	1	Audi	A4	2020	Grey	car
36	SBL2345B	1	Lexus	RX350	2021	White	car
37	SBM3456C	1	Volvo	XC60	2020	Blue	car
38	SBN4567D	2	Toyota	Vios	2018	Silver	car
39	SB05678F	2	Honda	Jazz	2020	Red	car
40	SBP67890	2	Nissan	Almera	2019	White	car
41	SBQ7890I	2	Mazda	3	2020	Blue	car
42	SBR8901J	2	Volkswa...	Polo	2019	Grey	car
43	SBS9012L	3	Kia	Picanto	2018	Red	car
44	SBT0123M	3	Hyundai	i10	2019	Silver	car
45	SBU1234N	3	Toyota	Camry	2021	Black	car
46	SBV2345O	3	Honda	Accord	2020	White	car
47	SBW3456Q	3	Nissan	Sentra	2021	Grey	car
48	SBX4567S	3	Mazda	2	2019	Red	car
49	SBY5678T	3	Volkswa...	Jetta	2021	White	car
50	SBZ6789V	3	Hyundai	Elantra	2019	Blue	car
51	SCA7890W	3	Kia	Cerato	2021	Grey	car
52	SCB8901Y	3	Toyota	Yaris	2019	Silver	car
53	SCC9012A	3	Honda	City	2021	Black	car
54	SCD0123B	3	Nissan	Juke	2020	Blue	car
55	SCE1234D	3	Mazda	CX-3	2021	White	car
56	SCF2345E	3	Volkswa...	Tiguan	2020	Grey	car
57	SCG3456F	3	Hyundai	Kona	2019	Red	car
58	SCH4567H	3	Kia	Seltos	2020	Silver	car
59	SCI5678J	3	Toyota	Rush	2021	Black	car
60	SCI6789K	3	Honda	HR-V	2020	Blue	car
61	SCK7890L	3	Nissan	Kicks	2019	White	car
62	SCL8901N	3	Mazda	CX-8	2020	Grey	car
63	SCM9012O	3	Volkswa...	Passat	2019	Silver	car
64	SCN0123O	3	Hyundai	Sonata	2020	Blue	car
65	SCO1234R	1	Kia	Sorento	2021	White	car
66	SCP2345S	1	Toyota	Fortuner	2020	Black	car
67	SCQ3456T	1	Honda	CR-V	2022	Silver	car
68	SCR4567V	1	Nissan	X-Trail	2020	Blue	car
69	SCS5678W	1	Mazda	CX-9	2021	Grey	car
70	STC6789Y	1	Volkswa...	Arteon	2022	Black	car
71	SCU7890Z	1	Hyundai	Palisade	2021	Silver	car
72	SCV8901B	1	Kia	Carnival	2021	White	car
73	SCW9012C	1	Toyota	Alphard	2022	Black	car
74	SCX0123E	1	Honda	Odyssey	2021	Blue	car

## 4.9 OBU

```

INSERT INTO OBU (OBU_ID, VRN) VALUES
('OBU001', 'SBA1234A'), ('OBU002', 'SBB5678Z'), ('OBU003', 'FBA9999E'),
('OBU004', 'GBA4321X'), ('OBU005', 'SBC7890M'), ('OBU006', 'SBD1234N'),
('OBU007', 'FBB2345P'), ('OBU008', 'SBE3456Q'), ('OBU009', 'GBB5678R'),
('OBU010', 'SBF6789S'), ('OBU011', 'SBG7890T'), ('OBU012', 'FBC3456U'),
('OBU013', 'SBH8901V'), ('OBU014', 'SBI9012W'), ('OBU015', 'GBC6789X'),
('OBU016', 'SBJ0123Y'), ('OBU017', 'SBK1234Z'), ('OBU018', 'FBD4567A'),
('OBU019', 'SBL2345B'), ('OBU020', 'SBN3456C'), ('OBU021', 'SBN4567D'),
('OBU022', 'FBE5678E'), ('OBU023', 'SBO5678F'), ('OBU024', 'SBP6789G'),
('OBU025', 'FBF6789H'), ('OBU026', 'SBQ7890I'), ('OBU027', 'SBR8901J'),
('OBU028', 'GBD7890K'), ('OBU029', 'SBS9012L'), ('OBU030', 'SBT0123M'),
('OBU031', 'SBU1234N'), ('OBU032', 'SBV2345O'), ('OBU033', 'FBG7890P'),
('OBU034', 'SBW3456Q'), ('OBU035', 'GBE8901R'), ('OBU036', 'SBX4567S'),
('OBU037', 'SBY5678T'), ('OBU038', 'FBH8901U'), ('OBU039', 'SBZ6789V'),
('OBU040', 'SCA7890W'), ('OBU041', 'FBI9012X'), ('OBU042', 'SCB8901Y'),
('OBU043', 'GBF9012Z'), ('OBU044', 'SCC9012A'), ('OBU045', 'SCD0123B'),
('OBU046', 'FBJ0123C'), ('OBU047', 'SCE1234D'), ('OBU048', 'SCF2345E'),

```

```

('OBU049', 'SCG3456F'), ('OBU050', 'FBK3456G'), ('OBU051', 'SCH4567H'),
('OBU052', 'GBG1234I'), ('OBU053', 'SCI5678J'), ('OBU054', 'SCJ6789K'),
('OBU055', 'SCK7890L'), ('OBU056', 'FBL4567M'), ('OBU057', 'SCL8901N'),
('OBU058', 'SCM90120'), ('OBU059', 'FBM5678P'), ('OBU060', 'SCN0123Q'),
('OBU061', 'SCO1234R'), ('OBU062', 'SCP2345S'), ('OBU063', 'SCQ3456T'),
('OBU064', 'FBN6789U'), ('OBU065', 'SCR4567V'), ('OBU066', 'SCS5678W'),
('OBU067', 'GBH2345X'), ('OBU068', 'SCT6789Y'), ('OBU069', 'SCU7890Z'),
('OBU070', 'FBO7890A');

```

	OBU_ID	VRN
1	OBU003	FBA9999E
2	OBU007	FBB2345P
3	OBU012	FBC3456U
4	OBU018	FBD4567A
5	OBU022	FBE5678E
6	OBU025	FBF6789H
7	OBU033	FBG7890P
8	OBU038	FBH8901U
9	OBU041	FBI9012X
10	OBU046	FBJ0123C
11	OBU050	FBK3456G
12	OBU056	FBL4567M
13	OBU059	FBM5678P
14	OBU064	FBN6789U
15	OBU070	FBO7890A
16	OBU004	GBA4321X
17	OBU009	GBB5678R
18	OBU015	GBC6789X
19	OBU028	GBD7890K
20	OBU035	GBE8901R
21	OBU043	GBF9012Z
22	OBU052	GBG1234I
23	OBU067	GBH2345X
24	OBU001	SBA1234A
25	OBU002	SBB5678Z
26	OBU005	SBC7890M
27	OBU006	SBD1234N
28	OBU008	SBE3456Q
29	OBU010	SBF6789S
30	OBU011	SBG7890T
31	OBU013	SBH8901V
32	OBU014	SBI9012W
33	OBU016	SBJ0123Y
34	OBU017	SBK1234Z
35	OBU019	SBL2345B
36	OBU020	SBM3456C
37	OBU021	SBN4567D
38	OBU023	SBO5678F
39	OBU024	SBP6789G
40	OBU026	SBQ7890I
41	OBU027	SBR8901J
42	OBU029	SBS9012L
43	OBU030	SBT0123M
44	OBU031	SBU1234N
45	OBU032	SBV2345O
46	OBU034	SBW345...
47	OBU036	SBX4567S
48	OBU037	SBY5678T
49	OBU039	SBZ6789V
50	OBU040	SCA7890W
51	OBU042	SCB8901Y
52	OBU044	SCC9012A
53	OBU045	SCD0123B
54	OBU047	SCE1234D
55	OBU048	SCF2345E
56	OBU049	SCG3456F
57	OBU051	SCH4567H
58	OBU053	SCI5678J
59	OBU054	SCJ6789K
60	OBU055	SCK7890L
61	OBU057	SCL8901N
62	OBU058	SCM901...
63	OBU060	SCN0123Q
64	OBU061	SCO1234R
65	OBU062	SCP2345S
66	OBU063	SCQ3456T
67	OBU065	SCR4567V
68	OBU066	SCS5678W
69	OBU068	SCT6789Y
70	OBU069	SCU7890Z

## 4.10 ShortTermParking

```
INSERT INTO ShortTermParking (pass_UID, hourly_charges) VALUES  
('P001', 1.20), ('P002', 1.20), ('P003', 1.50), ('P004', 1.20),  
('P005', 1.20), ('P006', 1.50), ('P007', 1.20), ('P008', 1.50),  
('P009', 0.65), ('P010', 0.65), ('P011', 0.65), ('P012', 2.00),  
('P013', 2.00), ('P014', 1.20), ('P015', 1.20), ('P016', 1.50),  
('P017', 0.65), ('P018', 1.20), ('P019', 1.20), ('P020', 1.50),  
('P021', 0.65), ('P022', 1.20), ('P023', 2.00), ('P024', 1.20),  
('P025', 1.20), ('P026', 1.50), ('P027', 0.65), ('P028', 1.20),  
('P029', 1.20), ('P030', 1.50), ('P031', 0.65), ('P032', 1.20),  
('P033', 2.00), ('P034', 1.20), ('P035', 1.20), ('P036', 1.50),  
('P037', 0.65), ('P038', 1.20), ('P039', 1.20), ('P040', 1.50);
```

	pass_UID	hourly_charges
1	P001	1.20
2	P002	1.20
3	P003	1.50
4	P004	1.20
5	P005	1.20
6	P006	1.50
7	P007	1.20
8	P008	1.50
9	P009	0.65
10	P010	0.65
11	P011	0.65
12	P012	2.00
13	P013	2.00
14	P014	1.20
15	P015	1.20
16	P016	1.50
17	P017	0.65
18	P018	1.20
19	P019	1.20
20	P020	1.50
21	P021	0.65
22	P022	1.20
23	P023	2.00
24	P024	1.20
25	P025	1.20
26	P026	1.50
27	P027	0.65
28	P028	1.20
29	P029	1.20
30	P030	1.50
31	P031	0.65
32	P032	1.20
33	P033	2.00
34	P034	1.20
35	P035	1.20
36	P036	1.50
37	P037	0.65
38	P038	1.20
39	P039	1.20
40	P040	1.50

## 4.11 SeasonParkingPass

```
INSERT INTO SeasonParkingPass (pass_UID, carpark_ID, subscription_charges,  
purchaser_NRIC, UTR, purchaseMonth, purchaseYear, purchaseTime,  
validityTo, amountPaid, seasonPassType) VALUES  
('P041', 'CP001', 110.00, 'S1234567A', 'UTR2024100001', 'October', '2024',  
'10:00:00', '2024-10-31', 110.00, 'Monthly'),
```

('P042', 'CP001', 65.00, 'S2345678B', 'UTR2024100002', 'October', '2024',  
'10:30:00', '2024-10-31', 65.00, 'Monthly'),  
(('P043', 'CP002', 150.00, 'S4567890D', 'UTR2024100003', 'October', '2024',  
'11:00:00', '2024-10-31', 150.00, 'Monthly'),  
(('P044', 'CP003', 110.00, 'S3456789C', 'UTR2024100004', 'October', '2024',  
'11:30:00', '2024-10-31', 110.00, 'Monthly'),  
(('P045', 'CP001', 110.00, 'S5678901E', 'UTR2024100005', 'October', '2024',  
'12:00:00', '2024-10-31', 110.00, 'Monthly'),  
(('P046', 'CP001', 110.00, 'S1234567A', 'UTR2024110001', 'November',  
'2024', '09:00:00', '2024-11-30', 110.00, 'Monthly'),  
(('P047', 'CP001', 65.00, 'S1234567A', 'UTR2024110002', 'November', '2024',  
'09:15:00', '2024-11-30', 65.00, 'Monthly'),  
(('P048', 'CP001', 110.00, 'S1234567A', 'UTR2024110003', 'November',  
'2024', '09:30:00', '2024-11-30', 110.00, 'Monthly'),  
(('P049', 'CP001', 150.00, 'S1234567A', 'UTR2024110004', 'November',  
'2024', '09:45:00', '2024-11-30', 150.00, 'Monthly'),  
(('P050', 'CP001', 110.00, 'S2345678B', 'UTR2024110005', 'November',  
'2024', '10:00:00', '2024-11-30', 110.00, 'Monthly'),  
(('P051', 'CP001', 110.00, 'S5678901E', 'UTR2024110006', 'November',  
'2024', '10:30:00', '2024-11-30', 110.00, 'Monthly'),  
(('P052', 'CP001', 110.00, 'S5678901E', 'UTR2024110007', 'November',  
'2024', '10:45:00', '2024-11-30', 110.00, 'Monthly'),  
(('P053', 'CP001', 65.00, 'S5678901E', 'UTR2024110008', 'November', '2024',  
'11:00:00', '2024-11-30', 65.00, 'Monthly'),  
(('P054', 'CP002', 110.00, 'S4567890D', 'UTR2024110009', 'November',  
'2024', '11:30:00', '2024-11-30', 110.00, 'Monthly'),  
(('P055', 'CP003', 110.00, 'S3456789C', 'UTR2024110010', 'November',  
'2024', '12:00:00', '2024-11-30', 110.00, 'Monthly'),  
(('P056', 'CP003', 110.00, 'S6789012F', 'UTR2024110011', 'November',  
'2024', '12:30:00', '2024-11-30', 110.00, 'Monthly'),  
(('P057', 'CP004', 65.00, 'S7890123G', 'UTR2024110012', 'November', '2024',  
'13:00:00', '2024-11-30', 65.00, 'Monthly'),  
(('P058', 'CP004', 110.00, 'S9012345I', 'UTR2024110013', 'November',  
'2024', '13:30:00', '2024-11-30', 110.00, 'Monthly'),  
(('P059', 'CP005', 150.00, 'S0123456J', 'UTR2024110014', 'November',  
'2024', '14:00:00', '2024-11-30', 150.00, 'Monthly'),  
(('P060', 'CP006', 110.00, 'S2345679L', 'UTR2024110015', 'November',  
'2024', '14:30:00', '2024-11-30', 110.00, 'Monthly'),  
(('P061', 'CP006', 110.00, 'S2345679L', 'UTR2024110016', 'November',  
'2024', '14:45:00', '2024-11-30', 110.00, 'Monthly'),  
(('P062', 'CP006', 110.00, 'S2345679L', 'UTR2024110017', 'November',  
'2024', '15:00:00', '2024-11-30', 110.00, 'Monthly'),  
(('P063', 'CP006', 65.00, 'S2345679L', 'UTR2024110018', 'November', '2024',  
'15:15:00', '2024-11-30', 65.00, 'Monthly'),  
(('P064', 'CP001', 110.00, 'S1234569U', 'UTR2024110019', 'November',  
'2024', '15:30:00', '2024-11-30', 110.00, 'Monthly'),  
(('P065', 'CP002', 110.00, 'S2345670V', 'UTR2024110020', 'November',  
'2024', '16:00:00', '2024-11-30', 110.00, 'Monthly'))

('P066', 'CP003', 110.00, 'S3456781W', 'UTR2024110021', 'November',  
'2024', '16:30:00', '2024-11-30', 110.00, 'Monthly'),  
(('P067', 'CP001', 65.00, 'S1234567A', 'UTR2024120001', 'December', '2024',  
'09:00:00', '2024-12-31', 65.00, 'Monthly'),  
(('P068', 'CP001', 110.00, 'S2345678B', 'UTR2024120002', 'December',  
'2024', '09:30:00', '2024-12-31', 110.00, 'Monthly'),  
(('P069', 'CP002', 150.00, 'S4567890D', 'UTR2024120003', 'December',  
'2024', '10:00:00', '2024-12-31', 150.00, 'Monthly'),  
(('P070', 'CP003', 110.00, 'S3456789C', 'UTR2024120004', 'December',  
'2024', '10:30:00', '2024-12-31', 110.00, 'Monthly'),  
(('P071', 'CP001', 110.00, 'S5678901E', 'UTR2024120005', 'December',  
'2024', '11:00:00', '2024-12-31', 110.00, 'Monthly'),  
(('P072', 'CP006', 110.00, 'S2345679L', 'UTR2024120006', 'December',  
'2024', '11:30:00', '2024-12-31', 110.00, 'Monthly'),  
(('P073', 'CP004', 65.00, 'S7890123G', 'UTR2024120007', 'December', '2024',  
'12:00:00', '2024-12-31', 65.00, 'Monthly'),  
(('P074', 'CP001', 110.00, 'S1234569U', 'UTR2024120008', 'December',  
'2024', '12:30:00', '2024-12-31', 110.00, 'Monthly'),  
(('P075', 'CP002', 110.00, 'S2345670V', 'UTR2024120009', 'December',  
'2024', '13:00:00', '2024-12-31', 110.00, 'Monthly'),  
(('P076', 'CP003', 110.00, 'S3456781W', 'UTR2024120010', 'December',  
'2024', '13:30:00', '2024-12-31', 110.00, 'Monthly'),  
(('P077', 'CP008', 65.00, 'S3456780M', 'UTR2025010001', 'January', '2025',  
'09:00:00', '2025-01-31', 65.00, 'Monthly'),  
(('P078', 'CP008', 110.00, 'S4567891N', 'UTR2025010002', 'January', '2025',  
'09:30:00', '2025-01-31', 110.00, 'Monthly'),  
(('P079', 'CP010', 150.00, 'S5678902O', 'UTR2025010003', 'January', '2025',  
'10:00:00', '2025-01-31', 150.00, 'Monthly'),  
(('P080', 'CP010', 110.00, 'S6789013P', 'UTR2025010004', 'January', '2025',  
'10:30:00', '2025-01-31', 110.00, 'Monthly'),  
(('P081', 'CP010', 110.00, 'S6789013P', 'UTR2025010005', 'January', '2025',  
'10:45:00', '2025-01-31', 110.00, 'Monthly'),  
(('P082', 'CP010', 110.00, 'S6789013P', 'UTR2025010006', 'January', '2025',  
'11:00:00', '2025-01-31', 110.00, 'Monthly'),  
(('P083', 'CP010', 65.00, 'S6789013P', 'UTR2025010007', 'January', '2025',  
'11:15:00', '2025-01-31', 65.00, 'Monthly'),  
(('P084', 'CP008', 110.00, 'S7890124Q', 'UTR2025010008', 'January', '2025',  
'11:30:00', '2025-01-31', 110.00, 'Monthly'),  
(('P085', 'CP012', 110.00, 'S8901235R', 'UTR2025010009', 'January', '2025',  
'12:00:00', '2025-01-31', 110.00, 'Monthly'),  
(('P086', 'CP001', 110.00, 'S1234569U', 'UTR2025010010', 'January', '2025',  
'12:30:00', '2025-01-31', 110.00, 'Monthly'),  
(('P087', 'CP008', 65.00, 'S4567892X', 'UTR2025010011', 'January', '2025',  
'13:00:00', '2025-01-31', 65.00, 'Monthly'),  
(('P088', 'CP010', 110.00, 'S5678903Y', 'UTR2025010012', 'January', '2025',  
'13:30:00', '2025-01-31', 110.00, 'Monthly'),  
(('P089', 'CP012', 150.00, 'S2345672P', 'UTR2025010013', 'January', '2025',  
'14:00:00', '2025-01-31', 150.00, 'Monthly')),

('P090', 'CP008', 110.00, 'S0123457T', 'UTR2025010014', 'January', '2025',  
'14:30:00', '2025-01-31', 110.00, 'Monthly'),  
('P091', 'CP001', 110.00, 'S3456780M', 'UTR2025020001', 'February',  
'2025', '09:00:00', '2025-02-28', 110.00, 'Monthly'),  
('P092', 'CP001', 110.00, 'S4567891N', 'UTR2025020002', 'February',  
'2025', '09:30:00', '2025-02-28', 110.00, 'Monthly'),  
(('P093', 'CP003', 65.00, 'S3456789C', 'UTR2025020003', 'February', '2025',  
'10:00:00', '2025-02-28', 65.00, 'Monthly'),  
(('P094', 'CP003', 110.00, 'S6789012F', 'UTR2025020004', 'February',  
'2025', '10:30:00', '2025-02-28', 110.00, 'Monthly'),  
(('P095', 'CP006', 110.00, 'S2345679L', 'UTR2025020005', 'February',  
'2025', '11:00:00', '2025-02-28', 110.00, 'Monthly'),  
(('P096', 'CP006', 110.00, 'S8901236B', 'UTR2025020006', 'February',  
'2025', '11:30:00', '2025-02-28', 110.00, 'Monthly'),  
(('P097', 'CP008', 65.00, 'S3456780M', 'UTR2025020007', 'February', '2025',  
'12:00:00', '2025-02-28', 65.00, 'Monthly'),  
(('P098', 'CP010', 110.00, 'S6789013P', 'UTR2025020008', 'February',  
'2025', '12:30:00', '2025-02-28', 110.00, 'Monthly'),  
(('P099', 'CP012', 150.00, 'S2345672P', 'UTR2025020009', 'February',  
'2025', '13:00:00', '2025-02-28', 150.00, 'Monthly'),  
(('P100', 'CP012', 110.00, 'S9012346S', 'UTR2025020010', 'February',  
'2025', '13:30:00', '2025-02-28', 110.00, 'Monthly'),  
(('P101', 'CP001', 110.00, 'S3456780M', 'UTR2025020011', 'February',  
'2025', '14:00:00', '2025-02-28', 110.00, 'Monthly'),  
(('P102', 'CP001', 110.00, 'S4567891N', 'UTR2025020012', 'February',  
'2025', '14:30:00', '2025-02-28', 110.00, 'Monthly'),  
(('P103', 'CP001', 110.00, 'S56789020', 'UTR2025020013', 'February',  
'2025', '15:00:00', '2025-02-28', 110.00, 'Monthly'),  
(('P104', 'CP001', 110.00, 'S6789013P', 'UTR2025020014', 'February',  
'2025', '15:30:00', '2025-02-28', 110.00, 'Monthly'),  
(('P105', 'CP001', 110.00, 'S7890124Q', 'UTR2025020015', 'February',  
'2025', '16:00:00', '2025-02-28', 110.00, 'Monthly'),  
(('P106', 'CP001', 110.00, 'S8901235R', 'UTR2025020016', 'February',  
'2025', '16:30:00', '2025-02-28', 110.00, 'Monthly'),  
(('P107', 'CP001', 110.00, 'S9012346S', 'UTR2025020017', 'February',  
'2025', '17:00:00', '2025-02-28', 110.00, 'Monthly'),  
(('P108', 'CP001', 110.00, 'S0123457T', 'UTR2025020018', 'February',  
'2025', '17:30:00', '2025-02-28', 110.00, 'Monthly'),  
(('P109', 'CP001', 110.00, 'S1234569U', 'UTR2025020019', 'February',  
'2025', '18:00:00', '2025-02-28', 110.00, 'Monthly'),  
(('P110', 'CP001', 110.00, 'S2345670V', 'UTR2025020020', 'February',  
'2025', '18:30:00', '2025-02-28', 110.00, 'Monthly'),  
(('P200', 'CP005', 110.00, 'S1234567A', 'UTR2025021001', 'February',  
'2025', '10:00:00', '2025-02-28', 110.00, 'Monthly'),  
(('P201', 'CP005', 110.00, 'S2345678B', 'UTR2025021002', 'February',  
'2025', '10:30:00', '2025-02-28', 110.00, 'Monthly'),  
(('P202', 'CP005', 110.00, 'S3456789C', 'UTR2025021003', 'February',  
'2025', '11:00:00', '2025-02-28', 110.00, 'Monthly'),

('P203', 'CP005', 110.00, 'S4567890D', 'UTR2025021004', 'February',  
 '2025', '11:30:00', '2025-02-28', 110.00, 'Monthly'),  
 ('P204', 'CP005', 110.00, 'S5678901E', 'UTR2025021005', 'February',  
 '2025', '12:00:00', '2025-02-28', 110.00, 'Monthly'),  
 ('P205', 'CP005', 110.00, 'S6789012F', 'UTR2025021006', 'February',  
 '2025', '12:30:00', '2025-02-28', 110.00, 'Monthly'),  
 ('P206', 'CP005', 110.00, 'S7890123G', 'UTR2025021007', 'February',  
 '2025', '13:00:00', '2025-02-28', 110.00, 'Monthly'),  
 ('P207', 'CP005', 110.00, 'S8901234H', 'UTR2025021008', 'February',  
 '2025', '13:30:00', '2025-02-28', 110.00, 'Monthly'),  
 ('P300', 'CP005', 110.00, 'S1234567A', 'UTR2025021101', 'February',  
 '2025', '10:00:00', '2025-02-28', 110.00, 'Monthly'),  
 ('P301', 'CP005', 110.00, 'S2345678B', 'UTR2025021102', 'February',  
 '2025', '10:30:00', '2025-02-28', 110.00, 'Monthly'),  
 ('P302', 'CP005', 110.00, 'S3456789C', 'UTR2025021103', 'February',  
 '2025', '11:00:00', '2025-02-28', 110.00, 'Monthly'),  
 ('P303', 'CP005', 110.00, 'S4567890D', 'UTR2025021104', 'February',  
 '2025', '11:30:00', '2025-02-28', 110.00, 'Monthly'),  
 ('P304', 'CP005', 110.00, 'S5678901E', 'UTR2025021105', 'February',  
 '2025', '12:00:00', '2025-02-28', 110.00, 'Monthly'),  
 ('P305', 'CP005', 110.00, 'S6789012F', 'UTR2025021106', 'February',  
 '2025', '12:30:00', '2025-02-28', 110.00, 'Monthly'),  
 ('P306', 'CP005', 110.00, 'S7890123G', 'UTR2025021107', 'February',  
 '2025', '13:00:00', '2025-02-28', 110.00, 'Monthly');

	pass_UID	carpark_ID	subscription_charges	purchaser_NRIC	UTR	purchaseMonth	purchaseYear	purchaseTime	validityTo	amountPaid	seasonPassType	ResidentType
1	P041	CP001	110.00	S1234567A	UTR202410001	October	2024	10:00:00.0000000	2024-10-31	110.00	Monthly	Resident
2	P042	CP001	65.00	S2345678B	UTR202410002	October	2024	10:30:00.0000000	2024-10-31	65.00	Monthly	Resident
3	P043	CP002	150.00	S4567890D	UTR202410003	October	2024	11:00:00.0000000	2024-10-31	150.00	Monthly	Resident
4	P044	CP003	110.00	S3456789C	UTR202410004	October	2024	11:30:00.0000000	2024-10-31	110.00	Monthly	Resident
5	P045	CP001	110.00	S5678901E	UTR202410005	October	2024	12:00:00.0000000	2024-10-31	110.00	Monthly	Resident
6	P046	CP001	110.00	S1234567A	UTR202411001	November	2024	09:00:00.0000000	2024-11-30	110.00	Monthly	Resident
7	P047	CP001	65.00	S1234567A	UTR202411002	November	2024	09:15:00.0000000	2024-11-30	65.00	Monthly	Resident
8	P048	CP001	110.00	S1234567A	UTR202411003	November	2024	09:30:00.0000000	2024-11-30	110.00	Monthly	Resident
9	P049	CP001	150.00	S1234567A	UTR202411004	November	2024	09:45:00.0000000	2024-11-30	150.00	Monthly	Resident
10	P050	CP001	110.00	S2345678B	UTR202411005	November	2024	10:00:00.0000000	2024-11-30	110.00	Monthly	Resident
11	P051	CP001	110.00	S5678901E	UTR202411006	November	2024	10:30:00.0000000	2024-11-30	110.00	Monthly	Resident
12	P052	CP001	110.00	S5678901E	UTR202411007	November	2024	10:45:00.0000000	2024-11-30	110.00	Monthly	Resident
13	P053	CP001	65.00	S5678901E	UTR202411008	November	2024	11:00:00.0000000	2024-11-30	65.00	Monthly	Resident
14	P054	CP002	110.00	S4567890D	UTR202411009	November	2024	11:30:00.0000000	2024-11-30	110.00	Monthly	Resident
15	P055	CP003	110.00	S3456789C	UTR202411010	November	2024	12:00:00.0000000	2024-11-30	110.00	Monthly	Resident
16	P056	CP003	110.00	S6789012F	UTR202411011	November	2024	12:30:00.0000000	2024-11-30	110.00	Monthly	Resident
17	P057	CP004	65.00	S7890123G	UTR202411012	November	2024	13:00:00.0000000	2024-11-30	65.00	Monthly	Resident
18	P058	CP004	110.00	S9012345I	UTR202411013	November	2024	13:30:00.0000000	2024-11-30	110.00	Monthly	Resident
19	P059	CP005	150.00	S0123456J	UTR202411014	November	2024	14:00:00.0000000	2024-11-30	150.00	Monthly	Resident
20	P060	CP006	110.00	S2345679A	UTR202411015	November	2024	14:30:00.0000000	2024-11-30	110.00	Monthly	Resident
21	P061	CP006	110.00	S2345679L	UTR202411016	November	2024	14:45:00.0000000	2024-11-30	110.00	Monthly	Resident
22	P062	CP006	110.00	S2345679A	UTR202411017	November	2024	15:00:00.0000000	2024-11-30	110.00	Monthly	Resident
23	P063	CP006	65.00	S2345679L	UTR202411018	November	2024	15:15:00.0000000	2024-11-30	65.00	Monthly	Resident
24	P064	CP001	110.00	S1234569U	UTR202411019	November	2024	15:30:00.0000000	2024-11-30	110.00	Monthly	Non-Resident
25	P065	CP002	110.00	S2345670V	UTR202411020	November	2024	16:00:00.0000000	2024-11-30	110.00	Monthly	Non-Resident
26	P066	CP003	110.00	S3456781W	UTR202411021	November	2024	16:30:00.0000000	2024-11-30	110.00	Monthly	Non-Resident
27	P067	CP001	65.00	S1234567A	UTR202412001	December	2024	09:00:00.0000000	2024-12-31	65.00	Monthly	Resident
28	P068	CP001	110.00	S2345678B	UTR202412002	December	2024	09:30:00.0000000	2024-12-31	110.00	Monthly	Resident
29	P069	CP002	150.00	S4567890D	UTR202412003	December	2024	10:00:00.0000000	2024-12-31	150.00	Monthly	Resident
30	P070	CP003	110.00	S3456789C	UTR202412004	December	2024	10:30:00.0000000	2024-12-31	110.00	Monthly	Resident

31	P071	CP001	110.00	S5678901E	UTR2024120005	December	2024	11:00:00.0000000	2024-12-31	110.00	Monthly	Resident
32	P072	CP006	110.00	S2345679L	UTR2024120006	December	2024	11:30:00.0000000	2024-12-31	110.00	Monthly	Resident
33	P073	CP004	65.00	S7890123G	UTR2024120007	December	2024	12:00:00.0000000	2024-12-31	65.00	Monthly	Resident
34	P074	CP001	110.00	S1234569U	UTR2024120008	December	2024	12:30:00.0000000	2024-12-31	110.00	Monthly	Non-Resident
35	P075	CP002	110.00	S2345670V	UTR2024120009	December	2024	13:00:00.0000000	2024-12-31	110.00	Monthly	Non-Resident
36	P076	CP003	110.00	S3456781W	UTR2024120010	December	2024	13:30:00.0000000	2024-12-31	110.00	Monthly	Non-Resident
37	P077	CP008	65.00	S3456780M	UTR2025010001	January	2025	09:00:00.0000000	2025-01-31	65.00	Monthly	Non-Resident
38	P078	CP008	110.00	S4567891N	UTR2025010002	January	2025	09:30:00.0000000	2025-01-31	110.00	Monthly	Non-Resident
39	P079	CP010	150.00	S5678902O	UTR2025010003	January	2025	10:00:00.0000000	2025-01-31	150.00	Monthly	Non-Resident
40	P080	CP010	110.00	S6789013P	UTR2025010004	January	2025	10:30:00.0000000	2025-01-31	110.00	Monthly	Non-Resident
41	P081	CP010	110.00	S6789013P	UTR2025010005	January	2025	10:45:00.0000000	2025-01-31	110.00	Monthly	Non-Resident
42	P082	CP010	110.00	S6789013P	UTR2025010006	January	2025	11:00:00.0000000	2025-01-31	110.00	Monthly	Non-Resident
43	P083	CP010	65.00	S6789013P	UTR2025010007	January	2025	11:15:00.0000000	2025-01-31	65.00	Monthly	Non-Resident
44	P084	CP008	110.00	S7890124Q	UTR2025010008	January	2025	11:30:00.0000000	2025-01-31	110.00	Monthly	Non-Resident
45	P085	CP012	110.00	S8901235R	UTR2025010009	January	2025	12:00:00.0000000	2025-01-31	110.00	Monthly	Non-Resident
46	P086	CP001	110.00	S1234569U	UTR2025010010	January	2025	12:30:00.0000000	2025-01-31	110.00	Monthly	Non-Resident
47	P087	CP008	65.00	S4567892X	UTR2025010011	January	2025	13:00:00.0000000	2025-01-31	65.00	Monthly	Non-Resident
48	P088	CP010	110.00	S5678903Y	UTR2025010012	January	2025	13:30:00.0000000	2025-01-31	110.00	Monthly	Non-Resident
49	P089	CP012	150.00	S2345672P	UTR2025010013	January	2025	14:00:00.0000000	2025-01-31	150.00	Monthly	Resident
50	P090	CP008	110.00	S0123457T	UTR2025010014	January	2025	14:30:00.0000000	2025-01-31	110.00	Monthly	Non-Resident
51	P091	CP001	110.00	S3456780M	UTR2025020001	February	2025	09:00:00.0000000	2025-02-28	110.00	Monthly	Resident
52	P092	CP001	110.00	S4567891N	UTR2025020002	February	2025	09:30:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
53	P093	CP003	65.00	S3456789C	UTR2025020003	February	2025	10:00:00.0000000	2025-02-28	65.00	Monthly	Resident
54	P094	CP003	110.00	S6789012F	UTR2025020004	February	2025	10:30:00.0000000	2025-02-28	110.00	Monthly	Resident
55	P095	CP006	110.00	S2345679L	UTR2025020005	February	2025	11:00:00.0000000	2025-02-28	110.00	Monthly	Resident
56	P096	CP006	110.00	S8901236B	UTR2025020006	February	2025	11:30:00.0000000	2025-02-28	110.00	Monthly	Resident
57	P097	CP008	65.00	S3456780M	UTR2025020007	February	2025	12:00:00.0000000	2025-02-28	65.00	Monthly	Non-Resident
58	P098	CP010	110.00	S6789013P	UTR2025020008	February	2025	12:30:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
59	P099	CP012	150.00	S2345672P	UTR2025020009	February	2025	13:00:00.0000000	2025-02-28	150.00	Monthly	Resident
60	P100	CP012	110.00	S9012346S	UTR2025020010	February	2025	13:30:00.0000000	2025-02-28	110.00	Monthly	Non-Resident

pass_UID	carpark_ID	subscription_charges	purchaser_NRIC	UTR	purchaseMonth	purchaseYear	purchaseTime	validityTo	amountPaid	seasonPassType	ResidentType	
61	P101	CP001	110.00	S3456780M	UTR2025020011	February	2025	14:00:00.0000000	2025-02-28	110.00	Monthly	Resident
62	P102	CP001	110.00	S4567891N	UTR2025020012	February	2025	14:30:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
63	P103	CP001	110.00	S5678902O	UTR2025020013	February	2025	15:00:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
64	P104	CP001	110.00	S6789013P	UTR2025020014	February	2025	15:30:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
65	P105	CP001	110.00	S7890124Q	UTR2025020015	February	2025	16:00:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
66	P106	CP001	110.00	S8901235R	UTR2025020016	February	2025	16:30:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
67	P107	CP001	110.00	S9012346S	UTR2025020017	February	2025	17:00:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
68	P108	CP001	110.00	S0123457T	UTR2025020018	February	2025	17:30:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
69	P109	CP001	110.00	S1234569U	UTR2025020019	February	2025	18:00:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
70	P110	CP001	110.00	S2345670V	UTR2025020020	February	2025	18:30:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
71	P111	CP001	110.00	S3456781W	UTR2025020021	February	2025	19:00:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
72	P112	CP001	110.00	S4567892X	UTR2025020022	February	2025	19:30:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
73	P113	CP001	110.00	S5678903Y	UTR2025020023	February	2025	20:00:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
74	P114	CP001	110.00	S6789014Z	UTR2025020024	February	2025	20:30:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
75	P115	CP001	110.00	S7890125A	UTR2025020025	February	2025	21:00:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
76	P116	CP001	110.00	S8901236B	UTR2025020026	February	2025	21:30:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
77	P117	CP001	110.00	S9012347C	UTR2025020027	February	2025	22:00:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
78	P118	CP001	110.00	S0123458D	UTR2025020028	February	2025	22:30:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
79	P119	CP001	110.00	S1234560E	UTR2025020029	February	2025	23:00:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
80	P120	CP001	110.00	S2345671F	UTR2025020030	February	2025	23:30:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
81	P121	CP001	110.00	S3456782G	UTR2025020031	February	2025	09:15:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
82	P122	CP001	110.00	S4567893H	UTR2025020032	February	2025	09:45:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
83	P123	CP001	110.00	S5678904I	UTR2025020033	February	2025	10:15:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
84	P124	CP001	110.00	S6789015J	UTR2025020034	February	2025	10:45:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
85	P125	CP001	110.00	S7890126K	UTR2025020035	February	2025	11:15:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
86	P126	CP001	110.00	S8901237L	UTR2025020036	February	2025	11:45:00.0000000	2025-02-28	110.00	Monthly	Non-Resident
87	P127	CP001	110.00	S9012348M	UTR2025020037	February	2025	12:15:00.0000000	2025-02-28	110.00	Monthly	Non-Resident

	pass_UID	carpark_ID	subscription_charges	purchaser_NRIC	UTR	purchaseMonth	purchaseYear	purchaseTime	validityTo	amountPaid	seasonPassType	ResidentType
88	P128	CP001	110.00	S0123459N	UTR2025020038	February	2025	12:45:00.000000	2025-02-28	110.00	Monthly	Non-Resident
89	P129	CP001	110.00	S1234561O	UTR2025020039	February	2025	13:15:00.000000	2025-02-28	110.00	Monthly	Non-Resident
90	P130	CP001	110.00	S2345672P	UTR2025020040	February	2025	13:45:00.000000	2025-02-28	110.00	Monthly	Non-Resident
91	P131	CP001	110.00	S3456783Q	UTR2025020041	February	2025	14:15:00.000000	2025-02-28	110.00	Monthly	Non-Resident
92	P132	CP003	110.00	S4567894R	UTR2025020042	February	2025	14:30:00.000000	2025-02-28	110.00	Monthly	Non-Resident
93	P133	CP003	110.00	S5678905S	UTR2025020043	February	2025	15:00:00.000000	2025-02-28	110.00	Monthly	Non-Resident
94	P134	CP003	110.00	S6789016T	UTR2025020044	February	2025	15:30:00.000000	2025-02-28	110.00	Monthly	Non-Resident
95	P135	CP003	110.00	S7890127U	UTR2025020045	February	2025	16:00:00.000000	2025-02-28	110.00	Monthly	Non-Resident
96	P136	CP003	110.00	S8901238V	UTR2025020046	February	2025	16:30:00.000000	2025-02-28	110.00	Monthly	Non-Resident
97	P137	CP003	110.00	S9012349W	UTR2025020047	February	2025	17:00:00.000000	2025-02-28	110.00	Monthly	Non-Resident
98	P138	CP003	110.00	S0123450X	UTR2025020048	February	2025	17:30:00.000000	2025-02-28	110.00	Monthly	Resident
99	P139	CP003	110.00	S1234567A	UTR2025020049	February	2025	18:00:00.000000	2025-02-28	110.00	Monthly	Non-Resident
100	P140	CP003	110.00	S2345678B	UTR2025020050	February	2025	18:30:00.000000	2025-02-28	110.00	Monthly	Non-Resident
101	P141	CP003	110.00	S3456789C	UTR2025020051	February	2025	19:00:00.000000	2025-02-28	110.00	Monthly	Resident
102	P200	CP005	110.00	S1234567A	UTR2025021001	February	2025	10:00:00.000000	2025-02-28	110.00	Monthly	Non-Resident
103	P201	CP005	110.00	S2345678B	UTR2025021002	February	2025	10:30:00.000000	2025-02-28	110.00	Monthly	Non-Resident
104	P202	CP005	110.00	S3456789C	UTR2025021003	February	2025	11:00:00.000000	2025-02-28	110.00	Monthly	Non-Resident
105	P203	CP005	110.00	S4567890D	UTR2025021004	February	2025	11:30:00.000000	2025-02-28	110.00	Monthly	Non-Resident
106	P204	CP005	110.00	S5678901E	UTR2025021005	February	2025	12:00:00.000000	2025-02-28	110.00	Monthly	Non-Resident
107	P205	CP005	110.00	S6789012F	UTR2025021006	February	2025	12:30:00.000000	2025-02-28	110.00	Monthly	Non-Resident
108	P206	CP005	110.00	S7890123G	UTR2025021007	February	2025	13:00:00.000000	2025-02-28	110.00	Monthly	Non-Resident
109	P207	CP005	110.00	S8901234H	UTR2025021008	February	2025	13:30:00.000000	2025-02-28	110.00	Monthly	Non-Resident
110	P300	CP005	110.00	S1234567A	UTR2025021101	February	2025	10:00:00.000000	2025-02-28	110.00	Monthly	Non-Resident
111	P301	CP005	110.00	S2345678B	UTR2025021102	February	2025	10:30:00.000000	2025-02-28	110.00	Monthly	Non-Resident
112	P302	CP005	110.00	S3456789C	UTR2025021103	February	2025	11:00:00.000000	2025-02-28	110.00	Monthly	Non-Resident
113	P303	CP005	110.00	S4567890D	UTR2025021104	February	2025	11:30:00.000000	2025-02-28	110.00	Monthly	Non-Resident
114	P304	CP005	110.00	S5678901E	UTR2025021105	February	2025	12:00:00.000000	2025-02-28	110.00	Monthly	Non-Resident

## 4.12 ParkingOffense

```
INSERT INTO ParkingOffense (NRIC, date, time, VRN, rule_no, total_fine, number_of_offenses) VALUES
('S1234567A', '2024-10-15', '14:30:00', 'SBA1234A', 'R01', 100.00, 1),
('S1234567A', '2024-10-20', '16:45:00', 'SBN4567D', 'R04', 80.00, 1),
('S1234567A', '2024-11-05', '10:20:00', 'SBS9012L', 'R07', 90.00, 1),
('S2345678B', '2024-10-18', '09:15:00', 'SBB5678Z', 'R10', 100.00, 1),
('S2345678B', '2024-11-08', '15:30:00', 'FBE5678E', 'R14', 30.00, 1),
('S3456789C', '2024-10-22', '11:45:00', 'FBA9999E', 'R02', 50.00, 1),
('S4567890D', '2024-10-25', '13:20:00', 'GBA4321X', 'R03', 150.00, 1),
('S4567890D', '2024-11-10', '08:50:00', 'GBD7890K', 'R06', 120.00, 1),
('S5678901E', '2024-10-28', '17:00:00', 'SBC7890M', 'R13', 60.00, 1),
('S5678901E', '2024-11-12', '12:30:00', 'SBO5678F', 'R01', 100.00, 1),
('S6789012F', '2024-11-01', '10:45:00', 'SBD1234N', 'R07', 90.00, 1),
('S7890123G', '2024-11-03', '14:15:00', 'FBB2345P', 'R11', 50.00, 1),
('S8901234H', '2024-11-06', '09:30:00', 'SBE3456Q', 'R04', 80.00, 1),
('S9012345I', '2024-11-09', '16:20:00', 'GBB5678R', 'R09', 130.00, 1),
('S0123456J', '2024-11-11', '11:00:00', 'SBF6789S', 'R16', 200.00, 1),
('S1234568K', '2024-10-30', '15:45:00', 'SBG7890T', 'R19', 250.00, 1),
('S2345679L', '2024-11-02', '08:15:00', 'FBC3456U', 'R14', 30.00, 1),
('S3456780M', '2024-11-04', '13:40:00', 'SBH8901V', 'R01', 100.00, 1),
('S4567891N', '2024-11-07', '10:10:00', 'SBI9012W', 'R22', 150.00, 1),
('S5678902O', '2024-11-13', '14:50:00', 'GBC6789X', 'R15', 90.00, 1),
('S1234569U', '2024-10-16', '09:20:00', 'SBU1234N', 'R01', 100.00, 1),
('S1234569U', '2024-10-23', '11:35:00', 'SBU1234N', 'R04', 80.00, 1),
('S1234569U', '2024-11-14', '15:10:00', 'SBU1234N', 'R10', 100.00, 1),
('S1234569U', '2024-11-20', '13:25:00', 'SBU1234N', 'R13', 60.00, 1),
('S2345670V', '2024-10-19', '10:40:00', 'SBV2345O', 'R07', 90.00, 1),
```

('S2345670V', '2024-11-15', '14:20:00', 'SBV2345O', 'R19', 250.00, 1),  
('S3456781W', '2024-10-24', '08:55:00', 'FBG7890P', 'R17', 100.00, 1),  
('S3456781W', '2024-11-16', '16:30:00', 'FBG7890P', 'R20', 120.00, 1),  
('S3456781W', '2024-11-21', '12:15:00', 'FBG7890P', 'R23', 80.00, 1),  
('S4567892X', '2024-10-27', '11:50:00', 'SBW3456Q', 'R01', 100.00, 1),  
('S4567892X', '2024-11-17', '09:40:00', 'SBW3456Q', 'R04', 80.00, 1),  
('S5678903Y', '2024-10-29', '15:20:00', 'GBE8901R', 'R12', 150.00, 1),  
('S5678903Y', '2024-11-18', '10:30:00', 'GBE8901R', 'R15', 90.00, 1),  
('S5678903Y', '2024-11-22', '14:45:00', 'GBE8901R', 'R18', 250.00, 1),  
('S6789014Z', '2024-11-19', '11:15:00', 'SBX4567S', 'R28', 80.00, 1),  
('S7890125A', '2024-11-23', '13:50:00', 'SBY5678T', 'R31', 120.00, 1),  
('S8901236B', '2024-11-24', '09:25:00', 'FBH8901U', 'R35', 50.00, 1),  
('S9012347C', '2024-11-25', '15:40:00', 'SBZ6789V', 'R37', 80.00, 1),  
('S0123458D', '2024-11-26', '10:55:00', 'SCA7890W', 'R40', 200.00, 1),  
('S1234560E', '2024-11-27', '14:10:00', 'FBI9012X', 'R44', 70.00, 1),  
('S2345671F', '2024-11-28', '11:30:00', 'SCB8901Y', 'R43', 150.00, 1),  
('S3456782G', '2024-11-29', '16:05:00', 'GBF9012Z', 'R48', 180.00, 1),  
('S4567893H', '2024-11-30', '09:50:00', 'SCC9012A', 'R01', 100.00, 1),  
('S5678904I', '2024-10-31', '13:15:00', 'SCD0123B', 'R07', 90.00, 1),  
('S6789015J', '2024-11-01', '10:20:00', 'FBJ0123C', 'R11', 50.00, 1),  
('S7890126K', '2024-11-02', '15:35:00', 'SCE1234D', 'R16', 200.00, 1),  
('S8901237L', '2024-11-03', '11:45:00', 'SCF2345E', 'R22', 150.00, 1),  
('S9012348M', '2024-11-04', '14:00:00', 'SCG3456F', 'R25', 100.00, 1),  
('S0123459N', '2024-11-05', '09:10:00', 'FBK3456G', 'R29', 40.00, 1),  
('S1234561O', '2024-11-06', '16:25:00', 'SCH4567H', 'R34', 100.00, 1);

	NRIC	date	time	VRN	rule_no	total_fine	number_of_offenses
1	S0123456J	2024-11-11	11:00:00.0000000	SBF6789S	R16	200.00	1
2	S0123458D	2024-11-26	10:55:00.0000000	SCA7890W	R40	200.00	1
3	S0123459N	2024-11-05	09:10:00.0000000	FBK3456G	R29	40.00	1
4	S1234560E	2024-11-27	14:10:00.0000000	FBI9012X	R44	70.00	1
5	S1234561O	2024-11-06	16:25:00.0000000	SCH4567H	R34	100.00	1
6	S1234567A	2024-10-15	14:30:00.0000000	SBA1234A	R01	100.00	1
7	S1234567A	2024-10-20	16:45:00.0000000	SBN4567D	R04	80.00	1
8	S1234567A	2024-11-05	10:20:00.0000000	SBS9012L	R07	90.00	1
9	S1234568K	2024-10-30	15:45:00.0000000	SBG7890T	R19	250.00	1
10	S1234569U	2024-10-16	09:20:00.0000000	SBU1234N	R01	100.00	1
11	S1234569U	2024-10-23	11:35:00.0000000	SBU1234N	R04	80.00	1
12	S1234569U	2024-11-14	15:10:00.0000000	SBU1234N	R10	100.00	1
13	S1234569U	2024-11-20	13:25:00.0000000	SBU1234N	R13	60.00	1
14	S2345670V	2024-10-19	10:40:00.0000000	SBV2345O	R07	90.00	1
15	S2345670V	2024-11-15	14:20:00.0000000	SBV2345O	R19	250.00	1
16	S2345671F	2024-11-28	11:30:00.0000000	SCB8901Y	R43	150.00	1
17	S2345678B	2024-10-18	09:15:00.0000000	SBB5678Z	R10	100.00	1
18	S2345678B	2024-11-08	15:30:00.0000000	FBE5678E	R14	30.00	1
19	S2345679L	2024-11-02	08:15:00.0000000	FBC3456U	R14	30.00	1
20	S3456780M	2024-11-04	13:40:00.0000000	SBH8901V	R01	100.00	1
21	S3456781W	2024-10-24	08:55:00.0000000	FBG7890P	R17	100.00	1
22	S3456781W	2024-11-16	16:30:00.0000000	FBG7890P	R20	120.00	1
23	S3456781W	2024-11-21	12:15:00.0000000	FBG7890P	R23	80.00	1
24	S3456782G	2024-11-29	16:05:00.0000000	GBF9012Z	R48	180.00	1
25	S3456789C	2024-10-22	11:45:00.0000000	FBA9999E	R02	50.00	1

26	S4567890D	2024-10-25	13:20:00.0000000	GBA4321X	R03	150.00	1
27	S4567890D	2024-11-10	08:50:00.0000000	GBD7890K	R06	120.00	1
28	S4567891N	2024-11-07	10:10:00.0000000	SBI9012W	R22	150.00	1
29	S4567892X	2024-10-27	11:50:00.0000000	SBW345...	R01	100.00	1
30	S4567892X	2024-11-17	09:40:00.0000000	SBW345...	R04	80.00	1
31	S4567893H	2024-11-30	09:50:00.0000000	SCC9012A	R01	100.00	1
32	S5678901E	2024-10-28	17:00:00.0000000	SBC7890M	R13	60.00	1
33	S5678901E	2024-11-12	12:30:00.0000000	SBO5678F	R01	100.00	1
34	S5678902O	2024-11-13	14:50:00.0000000	GBC6789X	R15	90.00	1
35	S5678903Y	2024-10-29	15:20:00.0000000	GBE8901R	R12	150.00	1
36	S5678903Y	2024-11-18	10:30:00.0000000	GBE8901R	R15	90.00	1
37	S5678903Y	2024-11-22	14:45:00.0000000	GBE8901R	R18	250.00	1
38	S5678904I	2024-10-31	13:15:00.0000000	SCD0123B	R07	90.00	1
39	S6789012F	2024-11-01	10:45:00.0000000	SBD1234N	R07	90.00	1
40	S6789014Z	2024-11-19	11:15:00.0000000	SBX4567S	R28	80.00	1
41	S6789015J	2024-11-01	10:20:00.0000000	FBJ0123C	R11	50.00	1
42	S7890123G	2024-11-03	14:15:00.0000000	FBB2345P	R11	50.00	1
43	S7890125A	2024-11-23	13:50:00.0000000	SBY5678T	R31	120.00	1
44	S7890126K	2024-11-02	15:35:00.0000000	SCE1234D	R16	200.00	1
45	S8901234H	2024-11-06	09:30:00.0000000	SBE3456Q	R04	80.00	1
46	S8901236B	2024-11-24	09:25:00.0000000	FBH8901U	R35	50.00	1
47	S8901237L	2024-11-03	11:45:00.0000000	SCF2345E	R22	150.00	1
48	S9012345I	2024-11-09	16:20:00.0000000	GBB5678R	R09	130.00	1
49	S9012347C	2024-11-25	15:40:00.0000000	SBZ6789V	R37	80.00	1
50	S9012348M	2024-11-04	14:00:00.0000000	SCG3456F	R25	100.00	1

## 4.13 Entry

```
INSERT INTO Entry (carpark_ID, VRN, pass_UID, entry_date, entry_time)
VALUES
('CP001', 'SBA1234A', 'P001', '2024-11-04', '08:00:00'),
('CP001', 'SBB5678Z', 'P002', '2024-11-04', '09:30:00'),
('CP001', 'FBA9999E', 'P009', '2024-11-04', '10:15:00'),
('CP001', 'SBC7890M', 'P003', '2024-11-05', '07:45:00'),
('CP001', 'SBD1234N', 'P004', '2024-11-05', '08:30:00'),
('CP001', 'FBB2345P', 'P010', '2024-11-05', '09:00:00'),
('CP001', 'SBE3456Q', 'P005', '2024-11-06', '10:20:00'),
('CP001', 'GBB5678R', 'P012', '2024-11-06', '11:15:00'),
('CP003', 'SBF6789S', 'P006', '2024-11-07', '08:45:00'),
('CP003', 'SBG7890T', 'P007', '2024-11-07', '09:20:00'),
('CP003', 'FBC3456U', 'P011', '2024-11-07', '10:30:00'),
('CP003', 'SBH8901V', 'P008', '2024-11-08', '07:50:00'),
('CP003', 'SBI9012W', 'P014', '2024-11-08', '08:40:00'),
```

('CP003', 'GBC6789X', 'P013', '2024-11-08', '09:15:00'),  
('CP004', 'SBJ0123Y', 'P015', '2024-11-04', '11:00:00'),  
('CP004', 'SBK1234Z', 'P016', '2024-11-04', '12:15:00'),  
(('CP004', 'FBD4567A', 'P017', '2024-11-05', '13:30:00'),  
(('CP006', 'SBL2345B', 'P018', '2024-11-06', '14:00:00'),  
(('CP006', 'SBM3456C', 'P019', '2024-11-06', '15:20:00'),  
(('CP008', 'SBN4567D', 'P020', '2024-11-07', '16:10:00'),  
(('CP008', 'FBE5678E', 'P021', '2024-11-07', '17:00:00'),  
(('CP010', 'SBO5678F', 'P022', '2024-11-08', '08:10:00'),  
(('CP010', 'SBP6789G', 'P024', '2024-11-08', '09:25:00'),  
(('CP012', 'FBF6789H', 'P027', '2024-11-04', '10:35:00'),  
(('CP012', 'SBQ7890I', 'P025', '2024-11-04', '11:40:00'),  
(('CP014', 'SBR8901J', 'P026', '2024-11-05', '12:50:00'),  
(('CP014', 'GBD7890K', 'P023', '2024-11-05', '13:55:00'),  
(('CP001', 'SBS9012L', 'P028', '2024-11-11', '08:15:00'),  
(('CP001', 'SBT0123M', 'P029', '2024-11-11', '09:30:00'),  
(('CP003', 'SBU1234N', 'P030', '2024-11-12', '10:00:00'),  
(('CP003', 'SBV2345O', 'P032', '2024-11-12', '11:20:00'),  
(('CP004', 'FBG7890P', 'P031', '2024-11-13', '12:45:00'),  
(('CP006', 'SBW3456Q', 'P034', '2024-11-14', '13:15:00'),  
(('CP008', 'GBE8901R', 'P033', '2024-11-15', '14:30:00'),  
(('CP010', 'SBX4567S', 'P035', '2024-11-15', '15:00:00'),  
(('CP001', 'SBA1234A', 'P046', '2024-11-18', '08:00:00'),  
(('CP001', 'SBN4567D', 'P047', '2024-11-18', '08:30:00'),  
(('CP001', 'SBS9012L', 'P048', '2024-11-18', '09:00:00'),  
(('CP001', 'GBD7890K', 'P049', '2024-11-18', '17:00:00'),  
(('CP001', 'SBB5678Z', 'P050', '2024-11-19', '07:45:00'),  
(('CP001', 'SBC7890M', 'P051', '2024-11-19', '08:15:00'),  
(('CP001', 'SBO5678F', 'P052', '2024-11-19', '18:00:00'),  
(('CP001', 'FBE5678E', 'P053', '2024-11-20', '08:30:00'),  
(('CP002', 'GBA4321X', 'P054', '2024-11-21', '09:00:00'),  
(('CP003', 'FBA9999E', 'P055', '2024-11-22', '10:15:00'),  
(('CP003', 'SBD1234N', 'P056', '2024-11-22', '17:30:00'),  
(('CP004', 'FBB2345P', 'P057', '2024-11-25', '08:00:00'),  
(('CP004', 'SBF6789S', 'P058', '2024-11-25', '18:15:00'),  
(('CP005', 'SBF6789S', 'P059', '2024-11-26', '09:30:00'),  
(('CP006', 'FBC3456U', 'P060', '2024-11-27', '08:45:00'),  
(('CP006', 'SBQ7890I', 'P061', '2024-11-27', '09:00:00'),  
(('CP006', 'SBR8901J', 'P062', '2024-11-27', '17:45:00'),  
(('CP006', 'FBF6789H', 'P063', '2024-11-28', '08:20:00'),  
(('CP001', 'SBH8901V', 'P001', '2024-11-09', '10:00:00'),  
(('CP001', 'SBI9012W', 'P002', '2024-11-09', '11:30:00'),  
(('CP003', 'SBJ0123Y', 'P003', '2024-11-10', '09:15:00'),  
(('CP003', 'SBK1234Z', 'P004', '2024-11-10', '10:45:00'),  
(('CP001', 'SBL2345B', 'P036', '2024-11-04', '14:20:00'),  
(('CP001', 'SBM3456C', 'P037', '2024-11-05', '15:30:00'),  
(('CP002', 'SBG7890T', 'P038', '2024-11-06', '13:40:00'),  
(('CP003', 'SPB6789G', 'P039', '2024-11-07', '12:10:00'),

('CP004', 'SBT0123M', 'P040', '2024-11-08', '11:25:00'),  
('CP008', 'SCO1234R', 'P077', '2025-01-06', '08:00:00'),  
('CP008', 'SCP2345S', 'P078', '2025-01-06', '17:30:00'),  
('CP010', 'GBC6789X', 'P079', '2025-01-07', '09:15:00'),  
('CP010', 'SBJ0123Y', 'P080', '2025-01-07', '18:00:00'),  
('CP010', 'FBN6789U', 'P081', '2025-01-08', '08:30:00'),  
('CP010', 'SCQ3456T', 'P082', '2025-01-08', '17:45:00'),  
('CP010', 'FBD4567A', 'P083', '2025-01-09', '09:00:00'),  
('CP008', 'SCR4567V', 'P084', '2025-01-10', '08:15:00'),  
('CP012', 'SCS5678W', 'P085', '2025-01-13', '10:20:00'),  
('CP001', 'SBU1234N', 'P001', '2024-11-18', '10:30:00'),  
('CP001', 'SBV2345O', 'P002', '2024-11-18', '11:00:00'),  
('CP002', 'FBG7890P', 'P009', '2024-11-19', '12:15:00'),  
('CP003', 'SBW3456Q', 'P003', '2024-11-20', '13:30:00'),  
('CP004', 'GBE8901R', 'P012', '2024-11-21', '14:45:00'),  
('CP005', 'SBX4567S', 'P004', '2024-11-22', '15:20:00'),  
('CP006', 'SBY5678T', 'P005', '2024-11-25', '16:10:00'),  
('CP007', 'FBH8901U', 'P010', '2024-11-26', '17:00:00'),  
('CP008', 'SBZ6789V', 'P006', '2024-11-27', '08:50:00'),  
('CP009', 'SCA7890W', 'P007', '2024-11-28', '09:40:00'),  
('CP010', 'FBI9012X', 'P011', '2024-11-29', '10:25:00'),  
('CP011', 'SCB8901Y', 'P008', '2024-11-30', '11:35:00'),  
('CP012', 'GBF9012Z', 'P013', '2024-12-02', '12:50:00'),  
('CP013', 'SCC9012A', 'P014', '2024-12-03', '13:15:00'),  
('CP014', 'SCD0123B', 'P015', '2024-12-04', '14:30:00'),  
('CP015', 'FBJ0123C', 'P017', '2024-12-05', '15:45:00'),  
('CP001', 'SCE1234D', 'P016', '2024-12-06', '08:20:00'),  
('CP001', 'SCF2345E', 'P018', '2024-12-09', '09:10:00'),  
('CP002', 'SCG3456F', 'P019', '2024-12-10', '10:00:00'),  
('CP003', 'FBK3456G', 'P021', '2024-12-11', '11:15:00'),  
('CP004', 'SCH4567H', 'P020', '2024-12-12', '12:30:00'),  
('CP005', 'GBG1234I', 'P023', '2024-12-13', '13:45:00'),  
('CP006', 'SCI5678J', 'P022', '2024-12-16', '14:20:00'),  
('CP007', 'SCJ6789K', 'P024', '2024-12-17', '15:05:00'),  
('CP008', 'SCK7890L', 'P025', '2024-12-18', '16:30:00'),  
('CP009', 'FBL4567M', 'P027', '2024-12-19', '17:15:00'),  
('CP010', 'SCL8901N', 'P026', '2024-12-20', '08:40:00'),  
('CP011', 'SCM9012O', 'P028', '2024-12-23', '09:25:00'),  
('CP012', 'FBM5678P', 'P031', '2024-12-24', '10:50:00'),  
('CP013', 'SCN0123Q', 'P029', '2024-12-26', '11:35:00'),  
('CP014', 'SCO1234R', 'P030', '2024-12-27', '12:20:00'),  
('CP001', 'SCP2345S', 'P032', '2024-12-30', '13:45:00'),  
('CP002', 'SCQ3456T', 'P034', '2024-12-31', '14:55:00'),  
('CP003', 'FBN6789U', 'P037', '2025-01-02', '15:10:00'),  
('CP004', 'SCR4567V', 'P035', '2025-01-03', '16:25:00'),  
('CP005', 'SCS5678W', 'P036', '2025-01-06', '08:00:00'),  
('CP006', 'GBH2345X', 'P033', '2025-01-07', '09:15:00'),  
('CP007', 'SCT6789Y', 'P038', '2025-01-08', '10:30:00'),

('CP008', 'SCU7890Z', 'P039', '2025-01-09', '11:45:00'),  
('CP009', 'FBO7890A', 'P010', '2025-01-10', '12:20:00'),  
('CP010', 'SCV8901B', 'P040', '2025-01-13', '13:35:00'),  
('CP011', 'SCW9012C', 'P014', '2025-01-14', '14:50:00'),  
('CP012', 'GBI3456D', 'P023', '2025-01-15', '15:40:00'),  
('CP013', 'SCX0123E', 'P015', '2025-01-16', '16:25:00'),  
('CP001', 'SBA1234A', 'P001', '2024-11-11', '07:00:00'),  
('CP001', 'SBB5678Z', 'P002', '2024-11-11', '07:30:00'),  
('CP003', 'FBA9999E', 'P009', '2024-11-12', '08:00:00'),  
('CP003', 'SBC7890M', 'P003', '2024-11-12', '08:30:00'),  
('CP004', 'SBD1234N', 'P004', '2024-11-13', '09:00:00'),  
('CP006', 'FBB2345P', 'P010', '2024-11-14', '09:30:00'),  
('CP008', 'SBE3456Q', 'P005', '2024-11-15', '10:00:00'),  
('CP010', 'GBB5678R', 'P012', '2024-11-15', '10:30:00'),  
('CP012', 'SBF6789S', 'P006', '2024-11-18', '11:00:00'),  
('CP014', 'SBG7890T', 'P007', '2024-11-19', '11:30:00'),  
('CP001', 'FBC3456U', 'P011', '2024-11-20', '12:00:00'),  
('CP003', 'SBH8901V', 'P008', '2024-11-21', '12:30:00'),  
('CP004', 'SBI9012W', 'P014', '2024-11-22', '13:00:00'),  
('CP006', 'GBC6789X', 'P013', '2024-11-25', '13:30:00'),  
('CP008', 'SBJ0123Y', 'P015', '2024-11-26', '14:00:00'),  
('CP010', 'SBK1234Z', 'P016', '2024-11-27', '14:30:00'),  
('CP012', 'FBD4567A', 'P017', '2024-11-28', '15:00:00'),  
('CP014', 'SBL2345B', 'P018', '2024-11-29', '15:30:00'),  
('CP001', 'SBM3456C', 'P019', '2024-12-02', '16:00:00'),  
('CP003', 'SBN4567D', 'P020', '2024-12-03', '16:30:00'),  
('CP004', 'FBE5678E', 'P021', '2024-12-04', '17:00:00'),  
('CP006', 'SBO5678F', 'P022', '2024-12-05', '17:30:00'),  
('CP008', 'SBP6789G', 'P024', '2024-12-06', '18:00:00'),  
('CP010', 'FBF6789H', 'P027', '2024-12-09', '18:30:00'),  
('CP012', 'SBQ7890I', 'P025', '2024-12-10', '07:15:00'),  
('CP014', 'SBR8901J', 'P026', '2024-12-11', '07:45:00'),  
('CP001', 'GBD7890K', 'P023', '2024-12-12', '08:15:00');

	ref_no	carpark_ID	VRN	pass_UID	entry_date	entry_time	
1	377	CP001	SBA1234A	P001	2024-11-04	08:00:00.0000000	
2	378	CP001	SBB5678Z	P002	2024-11-04	09:30:00.0000000	
3	379	CP001	FBA9999E	P009	2024-11-04	10:15:00.0000000	
4	380	CP001	SBC7890M	P003	2024-11-05	07:45:00.0000000	
5	381	CP001	SBD1234N	P004	2024-11-05	08:30:00.0000000	
6	382	CP001	FBB2345P	P010	2024-11-05	09:00:00.0000000	
7	383	CP001	SBE3456Q	P005	2024-11-06	10:20:00.0000000	
8	384	CP001	GBB5678R	P012	2024-11-06	11:15:00.0000000	
9	385	CP003	SBF6789S	P006	2024-11-07	08:45:00.0000000	
10	386	CP003	SBG7890T	P007	2024-11-07	09:20:00.0000000	
11	387	CP003	FBC3456U	P011	2024-11-07	10:30:00.0000000	
12	388	CP003	SBH8901V	P008	2024-11-08	07:50:00.0000000	
13	389	CP003	SBI9012W	P014	2024-11-08	08:40:00.0000000	
14	390	CP003	GBC6789X	P013	2024-11-08	09:15:00.0000000	
15	391	CP004	SBJ0123Y	P015	2024-11-04	11:00:00.0000000	
16	392	CP004	SBK1234Z	P016	2024-11-04	12:15:00.0000000	
17	393	CP004	FBD4567A	P017	2024-11-05	13:30:00.0000000	
18	394	CP006	SBL2345B	P018	2024-11-06	14:00:00.0000000	
19	395	CP006	SBM3456C	P019	2024-11-06	15:20:00.0000000	
20	396	CP008	SBN4567D	P020	2024-11-07	16:10:00.0000000	
21	397	CP008	FBE5678E	P021	2024-11-07	17:00:00.0000000	
22	398	CP010	SB05678F	P022	2024-11-08	08:10:00.0000000	
23	399	CP010	SBP6789G	P024	2024-11-08	09:25:00.0000000	
24	400	CP012	FBF6789H	P027	2024-11-04	10:35:00.0000000	
25	401	CP012	SBQ7890I	P025	2024-11-04	11:40:00.0000000	
26	402	CP014	SBR8901J	P026	2024-11-05	12:50:00.0000000	
27	403	CP014	GBD7890K	P023	2024-11-05	13:55:00.0000000	
28	404	CP001	SBS9012L	P028	2024-11-11	08:15:00.0000000	
29	405	CP001	SBT0123M	P029	2024-11-11	09:30:00.0000000	
30	406	CP003	SBU1234N	P030	2024-11-12	10:00:00.0000000	
31	407	CP003	SBV2345O	P032	2024-11-12	11:20:00.0000000	
32	408	CP004	FBG7890P	P031	2024-11-13	12:45:00.0000000	
33	409	CP006	SBW3456Q	P034	2024-11-14	13:15:00.0000000	
34	410	CP008	GBE8901R	P033	2024-11-15	14:30:00.0000000	
35	411	CP010	SBX4567S	P035	2024-11-15	15:00:00.0000000	
36	412	CP001	SBA1234A	P046	2024-11-18	08:00:00.0000000	
37	413	CP001	SBN4567D	P047	2024-11-18	08:30:00.0000000	
38	414	CP001	SBS9012L	P048	2024-11-18	09:00:00.0000000	
39	415	CP001	GBD7890K	P049	2024-11-18	17:00:00.0000000	
40	416	CP001	SBB5678Z	P050	2024-11-19	07:45:00.0000000	
41	417	CP001	SBC7890M	P051	2024-11-19	08:15:00.0000000	
42	418	CP001	SBO5678F	P052	2024-11-19	18:00:00.0000000	
43	419	CP001	FBE5678E	P053	2024-11-20	08:30:00.0000000	
44	420	CP002	GBA4321X	P054	2024-11-21	09:00:00.0000000	
45	421	CP003	FBA9999E	P055	2024-11-22	10:15:00.0000000	
46	422	CP003	SBD1234N	P056	2024-11-22	17:30:00.0000000	
47	423	CP004	FBB2345P	P057	2024-11-25	08:00:00.0000000	
48	424	CP004	SBF6789S	P058	2024-11-25	18:15:00.0000000	
49	425	CP005	SBF6789S	P059	2024-11-26	09:30:00.0000000	
50	426	CP006	FBC3456U	P060	2024-11-27	08:45:00.0000000	
51	427	CP006	SBQ7890I	P061	2024-11-27	09:00:00.0000000	
52	428	CP006	SBR8901J	P062	2024-11-27	17:45:00.0000000	
53	429	CP006	FBF6789H	P063	2024-11-28	08:20:00.0000000	
54	430	CP001	SBH8901V	P001	2024-11-09	10:00:00.0000000	
55	431	CP001	SBI9012W	P002	2024-11-09	11:30:00.0000000	
56	432	CP003	SBJ0123Y	P003	2024-11-10	09:15:00.0000000	
57	433	CP003	SBK1234Z	P004	2024-11-10	10:45:00.0000000	
58	434	CP001	SBL2345B	P036	2024-11-04	14:20:00.0000000	
59	435	CP001	SBM3456C	P037	2024-11-05	15:30:00.0000000	
60	436	CP002	SBG7890T	P038	2024-11-06	13:40:00.0000000	
61	437	CP003	SPB6789G	P039	2024-11-07	12:10:00.0000000	
62	438	CP004	SBT0123M	P040	2024-11-08	11:25:00.0000000	
63	439	CP008	SCO1234R	P077	2025-01-06	08:00:00.0000000	
64	440	CP008	SCP2345S	P078	2025-01-06	17:30:00.0000000	
65	441	CP010	GBC6789X	P079	2025-01-07	09:15:00.0000000	
66	442	CP010	SBJ0123Y	P080	2025-01-07	18:00:00.0000000	
67	443	CP010	FBN6789U	P081	2025-01-08	08:30:00.0000000	
68	444	CP010	SCQ3456T	P082	2025-01-08	17:45:00.0000000	
69	445	CP010	FBD4567A	P083	2025-01-09	09:00:00.0000000	
70	446	CP008	SCR4567V	P084	2025-01-10	08:15:00.0000000	
71	447	CP012	SCS5678W	P085	2025-01-13	10:20:00.0000000	
72	448	CP001	SBU1234N	P001	2024-11-18	10:30:00.0000000	
73	449	CP001	SBV2345O	P002	2024-11-18	11:00:00.0000000	
74	450	CP002	FBG7890P	P009	2024-11-19	12:15:00.0000000	
75	451	CP003	SBW3456Q	P003	2024-11-20	13:30:00.0000000	
76	452	CP004	GBE8901R	P012	2024-11-21	14:45:00.0000000	
77	453	CP005	SBX4567S	P004	2024-11-22	15:20:00.0000000	
78	454	CP006	SBY5678T	P005	2024-11-25	16:10:00.0000000	
79	455	CP007	FBH8901U	P010	2024-11-26	17:00:00.0000000	
80	456	CP008	SBZ6789V	P006	2024-11-27	08:50:00.0000000	

81	457	CP009	SCA7890W	P007	2024-11-28	09:40:00.000000000						
82	458	CP010	FBI9012X	P011	2024-11-29	10:25:00.000000000						
83	459	CP011	SCB8901Y	P008	2024-11-30	11:35:00.000000000						
84	460	CP012	GFB9012Z	P013	2024-12-02	12:50:00.000000000						
85	461	CP013	SSC9012A	P014	2024-12-03	13:15:00.000000000						
86	462	CP014	SCD0123B	P015	2024-12-04	14:30:00.000000000						
87	463	CP015	FBJ0123C	P017	2024-12-05	15:45:00.000000000						
88	464	CP001	SCE1234D	P016	2024-12-06	08:20:00.000000000						
89	465	CP001	SCF2345E	P018	2024-12-09	09:10:00.000000000						
90	466	CP002	SCG3456F	P019	2024-12-10	10:00:00.000000000						
91	467	CP003	FBK3456G	P021	2024-12-11	11:15:00.000000000						
92	468	CP004	SCH4567H	P020	2024-12-12	12:30:00.000000000						
93	469	CP005	GBG1234I	P023	2024-12-13	13:45:00.000000000						
94	470	CP006	SCI5678J	P022	2024-12-16	14:20:00.000000000						
95	471	CP007	SCJ6789K	P024	2024-12-17	15:05:00.000000000						
96	472	CP008	SCK7890L	P025	2024-12-18	16:30:00.000000000						
97	473	CP009	FBL4567M	P027	2024-12-19	17:15:00.000000000						
98	474	CP010	SCL8901N	P026	2024-12-20	08:40:00.000000000						
99	475	CP011	SCM9012O	P028	2024-12-23	09:25:00.000000000						
100	476	CP012	FBM5678P	P031	2024-12-24	10:50:00.000000000						
101	477	CP013	SCN0123Q	P029	2024-12-26	11:35:00.000000000						
102	478	CP014	SC01234R	P030	2024-12-27	12:20:00.000000000						
103	479	CP001	SCP2345S	P032	2024-12-30	13:45:00.000000000						
104	480	CP002	SCQ3456T	P034	2024-12-31	14:55:00.000000000						
105	481	CP003	FBN6789U	P037	2025-01-02	15:10:00.000000000						
106	482	CP004	SCR4567V	P035	2025-01-03	16:25:00.000000000						
107	483	CP005	SCS5678W	P036	2025-01-06	08:00:00.000000000						
108	484	CP006	GBH2345X	P033	2025-01-07	09:15:00.000000000						
109	485	CP007	SCT6789Y	P038	2025-01-08	10:30:00.000000000						
110	486	CP008	SCU7890Z	P039	2025-01-09	11:45:00.000000000						
111	487	CP009	FBO7890A	P010	2025-01-10	12:20:00.000000000						
112	488	CP010	SCV8901B	P040	2025-01-13	13:35:00.000000000						
113	489	CP011	SCW9012C	P014	2025-01-14	14:50:00.000000000						
114	490	CP012	GBI3456D	P023	2025-01-15	15:40:00.000000000						
115	491	CP013	SCX0123E	P015	2025-01-16	16:25:00.000000000						
116	492	CP001	SBA1234A	P001	2024-11-11	07:00:00.000000000						
117	493	CP001	SBB5678Z	P002	2024-11-11	07:30:00.000000000						
118	494	CP003	FBA9999E	P009	2024-11-12	08:00:00.000000000						
119	495	CP003	SBC7890M	P003	2024-11-12	08:30:00.000000000						
120	496	CP004	SBD1234N	P004	2024-11-13	09:00:00.000000000						
121	497	CP006	FBB2345P	P010	2024-11-14	09:30:00.000000000						
122	498	CP008	SBE3456Q	P005	2024-11-15	10:00:00.000000000						
123	499	CP010	GBB5678R	P012	2024-11-15	10:30:00.000000000						
124	500	CP012	SBF6789S	P006	2024-11-18	11:00:00.000000000						
125	501	CP014	SBG7890T	P007	2024-11-19	11:30:00.000000000						
126	502	CP001	FBC3456U	P011	2024-11-20	12:00:00.000000000						
127	503	CP003	SBH8901V	P008	2024-11-21	12:30:00.000000000						
128	504	CP004	SBI9012W	P014	2024-11-22	13:00:00.000000000						
129	505	CP006	GBC6789X	P013	2024-11-25	13:30:00.000000000						
130	506	CP008	SBJ0123Y	P015	2024-11-26	14:00:00.000000000						
131	507	CP010	SBK1234Z	P016	2024-11-27	14:30:00.000000000						
132	508	CP012	FBD4567A	P017	2024-11-28	15:00:00.000000000						
133	509	CP014	SBL2345B	P018	2024-11-29	15:30:00.000000000						
134	510	CP001	SBM3456C	P019	2024-12-02	16:00:00.000000000						
135	511	CP003	SBN4567D	P020	2024-12-03	16:30:00.000000000						
136	512	CP004	FBE5678E	P021	2024-12-04	17:00:00.000000000						
137	513	CP006	SBO5678F	P022	2024-12-05	17:30:00.000000000						
138	514	CP008	SPB6789G	P024	2024-12-06	18:00:00.000000000						
139	515	CP010	FBE6789H	P027	2024-12-09	18:30:00.000000000						
140	516	CP012	SBQ7890I	P025	2024-12-10	07:15:00.000000000						
141	517	CP014	SBR8901J	P026	2024-12-11	07:45:00.000000000						
142	518	CP001	GBD7890K	P023	2024-12-12	08:15:00.000000000						

#### 4.14 Exit

```
INSERT INTO [Exit] (ref_no, carpark_ID, pass_UID, exit_date, exit_time, amount_paid) VALUES  
(1, 'CP001', 'P001', '2024-11-04', '08:45:00', 1.20),  
(2, 'CP001', 'P002', '2024-11-04', '10:15:00', 1.20),  
(3, 'CP001', 'P009', '2024-11-04', '11:00:00', 0.65),  
(4, 'CP001', 'P003', '2024-11-05', '08:30:00', 1.20),  
(5, 'CP001', 'P004', '2024-11-05', '09:10:00', 1.20),  
(6, 'CP001', 'P010', '2024-11-05', '09:50:00', 0.65),  
(7, 'CP001', 'P005', '2024-11-06', '11:05:00', 1.20),  
(8, 'CP001', 'P012', '2024-11-06', '12:00:00', 2.00),  
(9, 'CP003', 'P006', '2024-11-07', '09:30:00', 1.50),  
(10, 'CP003', 'P007', '2024-11-07', '10:00:00', 1.20),  
(11, 'CP003', 'P011', '2024-11-07', '11:15:00', 0.65),  
(12, 'CP003', 'P008', '2024-11-08', '08:35:00', 1.20),  
(13, 'CP003', 'P014', '2024-11-08', '09:25:00', 1.20),  
(14, 'CP003', 'P013', '2024-11-08', '10:00:00', 2.00),  
(15, 'CP004', 'P015', '2024-11-04', '11:45:00', 1.20),  
(16, 'CP004', 'P016', '2024-11-04', '13:00:00', 1.20),  
(17, 'CP004', 'P017', '2024-11-05', '14:15:00', 0.65),  
(18, 'CP006', 'P018', '2024-11-06', '14:45:00', 1.20),  
(19, 'CP006', 'P019', '2024-11-06', '16:05:00', 1.20),  
(20, 'CP008', 'P020', '2024-11-07', '16:55:00', 1.20),  
(21, 'CP008', 'P021', '2024-11-07', '17:45:00', 0.65),  
(22, 'CP010', 'P022', '2024-11-08', '09:10:00', 1.20),
```

(23, 'CP010', 'P024', '2024-11-08', '10:20:00', 1.20),  
(24, 'CP012', 'P027', '2024-11-04', '11:20:00', 0.65),  
(25, 'CP012', 'P025', '2024-11-04', '12:25:00', 1.20),  
(26, 'CP014', 'P026', '2024-11-05', '13:35:00', 1.20),  
(27, 'CP014', 'P023', '2024-11-05', '14:40:00', 2.00),  
(28, 'CP001', 'P028', '2024-11-11', '09:00:00', 1.20),  
(29, 'CP001', 'P029', '2024-11-11', '10:15:00', 1.20),  
(30, 'CP003', 'P030', '2024-11-12', '10:45:00', 1.20),  
(31, 'CP003', 'P032', '2024-11-12', '12:05:00', 1.20),  
(32, 'CP004', 'P031', '2024-11-13', '13:30:00', 0.65),  
(33, 'CP006', 'P034', '2024-11-14', '14:00:00', 1.20),  
(34, 'CP008', 'P033', '2024-11-15', '15:15:00', 2.00),  
(35, 'CP010', 'P035', '2024-11-15', '15:45:00', 1.20),  
(36, 'CP001', 'P046', '2024-11-18', '18:00:00', 0.00),  
(37, 'CP001', 'P047', '2024-11-18', '18:30:00', 0.00),  
(38, 'CP001', 'P048', '2024-11-18', '19:00:00', 0.00),  
(39, 'CP001', 'P049', '2024-11-18', '19:00:00', 0.00),  
(40, 'CP001', 'P050', '2024-11-19', '18:15:00', 0.00),  
(41, 'CP001', 'P051', '2024-11-19', '18:45:00', 0.00),  
(42, 'CP001', 'P052', '2024-11-19', '20:00:00', 0.00),  
(43, 'CP001', 'P053', '2024-11-20', '18:30:00', 0.00),  
(44, 'CP002', 'P054', '2024-11-21', '19:00:00', 0.00),  
(45, 'CP003', 'P055', '2024-11-22', '18:15:00', 0.00),  
(46, 'CP003', 'P056', '2024-11-22', '19:30:00', 0.00),  
(47, 'CP004', 'P057', '2024-11-25', '18:00:00', 0.00),  
(48, 'CP004', 'P058', '2024-11-25', '20:15:00', 0.00),  
(49, 'CP005', 'P059', '2024-11-26', '19:30:00', 0.00),  
(50, 'CP006', 'P060', '2024-11-27', '18:45:00', 0.00),  
(51, 'CP006', 'P061', '2024-11-27', '19:00:00', 0.00),  
(52, 'CP006', 'P062', '2024-11-27', '19:45:00', 0.00),  
(53, 'CP006', 'P063', '2024-11-28', '18:20:00', 0.00),  
(54, 'CP001', 'P001', '2024-11-09', '11:45:00', 1.20),  
(55, 'CP001', 'P002', '2024-11-09', '13:15:00', 1.20),  
(56, 'CP003', 'P003', '2024-11-10', '10:00:00', 1.50),  
(57, 'CP003', 'P004', '2024-11-10', '12:30:00', 1.20),  
(58, 'CP001', 'P036', '2024-11-04', '15:05:00', 1.20),  
(59, 'CP001', 'P037', '2024-11-05', '16:15:00', 1.20),  
(60, 'CP002', 'P038', '2024-11-06', '14:25:00', 1.20),  
(61, 'CP003', 'P039', '2024-11-07', '13:05:00', 1.20),  
(62, 'CP004', 'P040', '2024-11-08', '12:10:00', 1.20),  
(63, 'CP008', 'P077', '2025-01-06', '18:00:00', 0.00),  
(64, 'CP008', 'P078', '2025-01-06', '19:30:00', 0.00),  
(65, 'CP010', 'P079', '2025-01-07', '19:15:00', 0.00),  
(66, 'CP010', 'P080', '2025-01-07', '20:00:00', 0.00),  
(67, 'CP010', 'P081', '2025-01-08', '18:30:00', 0.00),  
(68, 'CP010', 'P082', '2025-01-08', '19:45:00', 0.00),  
(69, 'CP010', 'P083', '2025-01-09', '19:00:00', 0.00),  
(70, 'CP008', 'P084', '2025-01-10', '18:15:00', 0.00),

(71, 'CP012', 'P085', '2025-01-13', '20:20:00', 0.00),  
(72, 'CP001', 'P001', '2024-11-18', '11:15:00', 1.20),  
(73, 'CP001', 'P002', '2024-11-18', '11:45:00', 1.20),  
(74, 'CP002', 'P009', '2024-11-19', '13:00:00', 0.65),  
(75, 'CP003', 'P003', '2024-11-20', '14:15:00', 1.50),  
(76, 'CP004', 'P012', '2024-11-21', '15:30:00', 2.00),  
(77, 'CP005', 'P004', '2024-11-22', '16:05:00', 1.20),  
(78, 'CP006', 'P005', '2024-11-25', '17:05:00', 1.20),  
(79, 'CP007', 'P010', '2024-11-26', '18:45:00', 0.65),  
(80, 'CP008', 'P006', '2024-11-27', '09:35:00', 1.50),  
(81, 'CP009', 'P007', '2024-11-28', '10:25:00', 1.20),  
(82, 'CP010', 'P011', '2024-11-29', '11:10:00', 0.65),  
(83, 'CP011', 'P008', '2024-11-30', '12:20:00', 1.20),  
(84, 'CP012', 'P013', '2024-12-02', '13:35:00', 2.00),  
(85, 'CP013', 'P014', '2024-12-03', '14:00:00', 1.20),  
(86, 'CP014', 'P015', '2024-12-04', '15:15:00', 1.20),  
(87, 'CP015', 'P017', '2024-12-05', '16:30:00', 0.65),  
(88, 'CP001', 'P016', '2024-12-06', '09:05:00', 1.20),  
(89, 'CP001', 'P018', '2024-12-09', '09:55:00', 1.20),  
(90, 'CP002', 'P019', '2024-12-10', '10:45:00', 1.20),  
(91, 'CP003', 'P021', '2024-12-11', '12:00:00', 0.65),  
(92, 'CP004', 'P020', '2024-12-12', '13:15:00', 1.20),  
(93, 'CP005', 'P023', '2024-12-13', '14:30:00', 2.00),  
(94, 'CP006', 'P022', '2024-12-16', '15:05:00', 1.20),  
(95, 'CP007', 'P024', '2024-12-17', '15:50:00', 1.20),  
(96, 'CP008', 'P025', '2024-12-18', '17:15:00', 1.20),  
(97, 'CP009', 'P027', '2024-12-19', '18:00:00', 0.65),  
(98, 'CP010', 'P026', '2024-12-20', '09:25:00', 1.20),  
(99, 'CP011', 'P028', '2024-12-23', '10:10:00', 1.20),  
(100, 'CP012', 'P031', '2024-12-24', '11:35:00', 0.65),  
(101, 'CP013', 'P029', '2024-12-26', '12:20:00', 1.20),  
(102, 'CP014', 'P030', '2024-12-27', '13:05:00', 1.20),  
(103, 'CP001', 'P032', '2024-12-30', '14:30:00', 1.20),  
(104, 'CP002', 'P034', '2024-12-31', '15:40:00', 1.20),  
(105, 'CP003', 'P037', '2025-01-02', '16:55:00', 1.20),  
(106, 'CP004', 'P035', '2025-01-03', '17:10:00', 1.20),  
(107, 'CP005', 'P036', '2025-01-06', '09:45:00', 1.20),  
(108, 'CP006', 'P033', '2025-01-07', '10:00:00', 2.00),  
(109, 'CP007', 'P038', '2025-01-08', '11:15:00', 1.20),  
(110, 'CP008', 'P039', '2025-01-09', '12:30:00', 1.20),  
(111, 'CP009', 'P010', '2025-01-10', '13:05:00', 0.65),  
(112, 'CP010', 'P040', '2025-01-13', '14:20:00', 1.20),  
(113, 'CP011', 'P014', '2025-01-14', '15:35:00', 1.20),  
(114, 'CP012', 'P023', '2025-01-15', '16:25:00', 2.00),  
(115, 'CP013', 'P015', '2025-01-16', '17:10:00', 1.20),  
(116, 'CP001', 'P001', '2024-11-11', '08:30:00', 1.20),  
(117, 'CP001', 'P002', '2024-11-11', '09:15:00', 1.20),  
(118, 'CP003', 'P009', '2024-11-12', '09:45:00', 0.65),

(119, 'CP003', 'P003', '2024-11-12', '10:15:00', 1.50),  
(120, 'CP004', 'P004', '2024-11-13', '11:45:00', 1.20),  
(121, 'CP006', 'P010', '2024-11-14', '12:15:00', 0.65),  
(122, 'CP008', 'P005', '2024-11-15', '13:45:00', 1.20),  
(123, 'CP010', 'P012', '2024-11-15', '14:15:00', 2.00),  
(124, 'CP012', 'P006', '2024-11-18', '15:45:00', 1.50),  
(125, 'CP014', 'P007', '2024-11-19', '16:15:00', 1.20),  
(126, 'CP001', 'P011', '2024-11-20', '17:45:00', 0.65),  
(127, 'CP003', 'P008', '2024-11-21', '18:15:00', 1.20),  
(128, 'CP004', 'P014', '2024-11-22', '19:45:00', 1.20),  
(129, 'CP006', 'P013', '2024-11-25', '20:15:00', 2.00),  
(130, 'CP008', 'P015', '2024-11-26', '21:45:00', 1.20),  
(131, 'CP010', 'P016', '2024-11-27', '22:15:00', 1.20),  
(132, 'CP012', 'P017', '2024-11-28', '23:45:00', 0.65),  
(133, 'CP014', 'P018', '2024-11-29', '00:15:00', 1.20),  
(134, 'CP001', 'P019', '2024-12-02', '01:45:00', 1.20),  
(135, 'CP003', 'P020', '2024-12-03', '02:15:00', 1.20),  
(136, 'CP004', 'P021', '2024-12-04', '03:45:00', 0.65),  
(137, 'CP006', 'P022', '2024-12-05', '04:15:00', 1.20),  
(138, 'CP008', 'P024', '2024-12-06', '05:45:00', 1.20),  
(139, 'CP010', 'P027', '2024-12-09', '06:15:00', 0.65),  
(140, 'CP012', 'P025', '2024-12-10', '07:45:00', 1.20),  
(141, 'CP014', 'P026', '2024-12-11', '08:15:00', 1.20),  
(142, 'CP001', 'P023', '2024-12-12', '09:45:00', 2.00),  
(143, 'CP003', 'P028', '2024-12-13', '10:15:00', 1.20),  
(144, 'CP004', 'P029', '2024-12-16', '11:45:00', 1.20),  
(145, 'CP006', 'P030', '2024-12-17', '12:15:00', 1.20),  
(146, 'CP008', 'P031', '2024-12-18', '13:45:00', 0.65),  
(147, 'CP010', 'P032', '2024-12-19', '14:15:00', 1.20),  
(148, 'CP012', 'P033', '2024-12-20', '15:45:00', 2.00),  
(149, 'CP014', 'P034', '2024-12-23', '16:15:00', 1.20),  
(150, 'CP001', 'P035', '2024-12-24', '17:45:00', 1.20);

	ref_no	carpark_ID	pass_UID	exit_date	exit_time	amount_paid
1	1	CP001	P001	2024-11-04	08:45:00.0000000	1.20
2	2	CP001	P002	2024-11-04	10:15:00.0000000	1.20
3	3	CP001	P009	2024-11-04	11:00:00.0000000	0.65
4	4	CP001	P003	2024-11-05	08:30:00.0000000	1.20
5	5	CP001	P004	2024-11-05	09:10:00.0000000	1.20
6	6	CP001	P010	2024-11-05	09:50:00.0000000	0.65
7	7	CP001	P005	2024-11-06	11:05:00.0000000	1.20
8	8	CP001	P012	2024-11-06	12:00:00.0000000	2.00
9	9	CP003	P006	2024-11-07	09:30:00.0000000	1.50
10	10	CP003	P007	2024-11-07	10:00:00.0000000	1.20
11	11	CP003	P011	2024-11-07	11:15:00.0000000	0.65
12	12	CP003	P008	2024-11-08	08:35:00.0000000	1.20
13	13	CP003	P014	2024-11-08	09:25:00.0000000	1.20
14	14	CP003	P013	2024-11-08	10:00:00.0000000	2.00
15	15	CP004	P015	2024-11-04	11:45:00.0000000	1.20
16	16	CP004	P016	2024-11-04	13:00:00.0000000	1.20
17	17	CP004	P017	2024-11-05	14:15:00.0000000	0.65
18	18	CP006	P018	2024-11-06	14:45:00.0000000	1.20
19	19	CP006	P019	2024-11-06	16:05:00.0000000	1.20
20	20	CP008	P020	2024-11-07	16:55:00.0000000	1.20
21	21	CP008	P021	2024-11-07	17:45:00.0000000	0.65
22	22	CP010	P022	2024-11-08	09:10:00.0000000	1.20
23	23	CP010	P024	2024-11-08	10:20:00.0000000	1.20
24	24	CP012	P027	2024-11-04	11:20:00.0000000	0.65
25	25	CP012	P025	2024-11-04	12:25:00.0000000	1.20
26	26	CP014	P026	2024-11-05	13:35:00.0000000	1.20
27	27	CP014	P023	2024-11-05	14:40:00.0000000	2.00
28	28	CP001	P028	2024-11-11	09:00:00.0000000	1.20
29	29	CP001	P029	2024-11-11	10:15:00.0000000	1.20
30	30	CP003	P030	2024-11-12	10:45:00.0000000	1.20
31	31	CP003	P032	2024-11-12	12:05:00.0000000	1.20
32	32	CP004	P031	2024-11-13	13:30:00.0000000	0.65
33	33	CP006	P034	2024-11-14	14:00:00.0000000	1.20
34	34	CP008	P033	2024-11-15	15:15:00.0000000	2.00
35	35	CP010	P035	2024-11-15	15:45:00.0000000	1.20
36	36	CP001	P046	2024-11-18	18:00:00.0000000	0.00
37	37	CP001	P047	2024-11-18	18:30:00.0000000	0.00
38	38	CP001	P048	2024-11-18	19:00:00.0000000	0.00
39	39	CP001	P049	2024-11-18	19:00:00.0000000	0.00
40	40	CP001	P050	2024-11-19	18:15:00.0000000	0.00
41	41	CP001	P051	2024-11-19	18:45:00.0000000	0.00
42	42	CP001	P052	2024-11-19	20:00:00.0000000	0.00
43	43	CP001	P053	2024-11-20	18:30:00.0000000	0.00
44	44	CP002	P054	2024-11-21	19:00:00.0000000	0.00
45	45	CP003	P055	2024-11-22	18:15:00.0000000	0.00
46	46	CP003	P056	2024-11-22	19:30:00.0000000	0.00
47	47	CP004	P057	2024-11-23	18:00:00.0000000	0.00
48	48	CP004	P058	2024-11-25	20:15:00.0000000	0.00
49	49	CP005	P059	2024-11-26	19:30:00.0000000	0.00
50	50	CP006	P060	2024-11-27	18:45:00.0000000	0.00
51	51	CP006	P061	2024-11-27	19:00:00.0000000	0.00
52	52	CP006	P062	2024-11-27	19:45:00.0000000	0.00
53	53	CP006	P063	2024-11-28	18:20:00.0000000	0.00
54	54	CP001	P001	2024-11-09	11:45:00.0000000	1.20
55	55	CP001	P002	2024-11-09	13:15:00.0000000	1.20
56	56	CP003	P003	2024-11-10	10:00:00.0000000	1.50
57	57	CP003	P004	2024-11-10	12:30:00.0000000	1.20
58	58	CP001	P036	2024-11-04	15:05:00.0000000	1.20
59	59	CP001	P037	2024-11-05	16:15:00.0000000	1.20
60	60	CP002	P038	2024-11-06	14:25:00.0000000	1.20
61	61	CP003	P039	2024-11-07	13:05:00.0000000	1.20
62	62	CP004	P040	2024-11-08	12:10:00.0000000	1.20
63	63	CP008	P077	2025-01-06	18:00:00.0000000	0.00
64	64	CP008	P078	2025-01-06	19:30:00.0000000	0.00
65	65	CP010	P079	2025-01-07	19:15:00.0000000	0.00
66	66	CP010	P080	2025-01-07	20:00:00.0000000	0.00
67	67	CP010	P081	2025-01-08	18:30:00.0000000	0.00
68	68	CP010	P082	2025-01-08	19:45:00.0000000	0.00
69	69	CP010	P083	2025-01-09	19:00:00.0000000	0.00
70	70	CP008	P084	2025-01-10	18:15:00.0000000	0.00

71	71	CP012	P085	2025-01-13	20:20:00.0000000	0.00
72	72	CP001	P001	2024-11-18	11:15:00.0000000	1.20
73	73	CP001	P002	2024-11-18	11:45:00.0000000	1.20
74	74	CP002	P009	2024-11-19	13:00:00.0000000	0.65
75	75	CP003	P003	2024-11-20	14:15:00.0000000	1.50
76	76	CP004	P012	2024-11-21	15:30:00.0000000	2.00
77	77	CP005	P004	2024-11-22	16:05:00.0000000	1.20
78	78	CP006	P006	2024-11-25	17:05:00.0000000	1.20
79	79	CP007	P010	2024-11-26	18:45:00.0000000	0.65
80	80	CP008	P006	2024-11-27	09:35:00.0000000	1.50
81	81	CP009	P007	2024-11-28	10:25:00.0000000	1.20
82	82	CP010	P011	2024-11-29	11:10:00.0000000	0.65
83	83	CP011	P008	2024-11-30	12:20:00.0000000	1.20
84	84	CP012	P013	2024-12-02	13:35:00.0000000	2.00
85	85	CP013	P014	2024-12-02	14:00:00.0000000	1.20
86	86	CP014	P015	2024-12-04	15:15:00.0000000	1.20
87	87	CP015	P017	2024-12-05	16:30:00.0000000	0.65
88	88	CP001	P016	2024-12-06	09:05:00.0000000	1.20
89	89	CP001	P018	2024-12-09	09:55:00.0000000	1.20
90	90	CP002	P019	2024-12-10	10:45:00.0000000	1.20
91	91	CP003	P021	2024-12-11	12:00:00.0000000	0.65
92	92	CP004	P020	2024-12-12	13:15:00.0000000	1.20
93	93	CP005	P023	2024-12-13	14:30:00.0000000	2.00
94	94	CP006	P022	2024-12-16	15:05:00.0000000	1.20
95	95	CP007	P024	2024-12-17	15:50:00.0000000	1.20
96	96	CP008	P025	2024-12-18	17:15:00.0000000	1.20
97	97	CP009	P027	2024-12-19	18:00:00.0000000	0.65
98	98	CP010	P026	2024-12-20	09:25:00.0000000	1.20
99	99	CP011	P028	2024-12-23	10:10:00.0000000	1.20
100	100	CP012	P031	2024-12-24	11:35:00.0000000	0.65
101	101	CP013	P029	2024-12-26	12:20:00.0000000	1.20
102	102	CP014	P030	2024-12-27	13:05:00.0000000	1.20
103	103	CP001	P032	2024-12-30	14:30:00.0000000	1.20
104	104	CP002	P034	2024-12-31	15:40:00.0000000	1.20
105	105	CP003	P037	2025-01-02	16:55:00.0000000	1.20
106	106	CP004	P035	2025-01-03	17:10:00.0000000	1.20
107	107	CP005	P036	2025-01-06	09:45:00.0000000	1.20
108	108	CP006	P033	2025-01-07	10:00:00.0000000	2.00
109	109	CP007	P038	2025-01-08	11:15:00.0000000	1.20
110	110	CP008	P039	2025-01-09	12:30:00.0000000	1.20
111	111	CP009	P010	2025-01-10	13:05:00.0000000	0.65
112	112	CP010	P040	2025-01-13	14:20:00.0000000	1.20
113	113	CP011	P014	2025-01-14	15:35:00.0000000	1.20
114	114	CP012	P023	2025-01-15	16:25:00.0000000	2.00
115	115	CP013	P015	2025-01-16	17:10:00.0000000	1.20
116	116	CP001	P001	2024-11-11	08:30:00.0000000	1.20
117	117	CP001	P002	2024-11-11	09:15:00.0000000	1.20
118	118	CP003	P009	2024-11-12	09:45:00.0000000	0.65
119	119	CP003	P003	2024-11-12	10:15:00.0000000	1.50
120	120	CP004	P004	2024-11-13	11:45:00.0000000	1.20
121	121	CP006	P010	2024-11-14	12:15:00.0000000	0.65
122	122	CP008	P005	2024-11-15	13:45:00.0000000	1.20
123	123	CP010	P012	2024-11-15	14:15:00.0000000	2.00
124	124	CP012	P006	2024-11-18	15:45:00.0000000	1.50
125	125	CP014	P007	2024-11-19	16:15:00.0000000	1.20
126	126	CP001	P011	2024-11-20	17:45:00.0000000	0.65
127	127	CP003	P008	2024-11-21	18:15:00.0000000	1.20
128	128	CP004	P014	2024-11-22	19:45:00.0000000	1.20
129	129	CP006	P013	2024-11-25	20:15:00.0000000	2.00
130	130	CP008	P015	2024-11-26	21:45:00.0000000	1.20
131	131	CP010	P016	2024-11-27	22:15:00.0000000	1.20
132	132	CP012	P017	2024-11-28	23:45:00.0000000	0.65
133	133	CP014	P018	2024-11-29	00:15:00.0000000	1.20
134	134	CP001	P019	2024-12-02	01:45:00.0000000	1.20
135	135	CP003	P020	2024-12-03	02:15:00.0000000	1.20

136	136	CP004	P021	2024-12-04	03:45:00.0000000	0.65
137	137	CP006	P022	2024-12-05	04:15:00.0000000	1.20
138	138	CP008	P024	2024-12-06	05:45:00.0000000	1.20
139	139	CP010	P027	2024-12-09	06:15:00.0000000	0.65
140	140	CP012	P025	2024-12-10	07:45:00.0000000	1.20
141	141	CP014	P026	2024-12-11	08:15:00.0000000	1.20
142	142	CP001	P023	2024-12-12	09:45:00.0000000	2.00
143	143	CP003	P028	2024-12-13	10:15:00.0000000	1.20
144	144	CP004	P029	2024-12-16	11:45:00.0000000	1.20
145	145	CP006	P030	2024-12-17	12:15:00.0000000	1.20
146	146	CP008	P031	2024-12-18	13:45:00.0000000	0.65
147	147	CP010	P032	2024-12-19	14:15:00.0000000	1.20
148	148	CP012	P033	2024-12-20	15:45:00.0000000	2.00
149	149	CP014	P034	2024-12-23	16:15:00.0000000	1.20
150	150	CP001	P035	2024-12-24	17:45:00.0000000	1.20

## 5. Appendix B

### 5.1 Query 1

For each MSCP, count how many vehicles park for less than an hour during weekdays (Mon – Fri). Break down the records by vehicle types (i.e. car, motorcycle, and commercial vehicle).

#### Query:

```
WITH MatchedSessions AS (
    SELECT
        e.carpark_ID,
        e.VRN,
        v.vehicle_type,
        e.entry_date,
        e.entry_time,
        x.exit_time,
        DATEDIFF(MINUTE, e.entry_time, x.exit_time) as
duration_minutes,
        DATEPART(WEEKDAY, e.entry_date) as weekday_number
    FROM Entry e
    JOIN Vehicle v ON e.VRN = v.VRN
    JOIN Carpark c ON e.carpark_ID = c.carpark_ID
    CROSS APPLY (
        SELECT TOP 1 exit_time
        FROM [Exit] x
        WHERE x.carpark_ID = e.carpark_ID
        AND x.exit_date = e.entry_date
        AND x.exit_time > e.entry_time
        ORDER BY x.exit_time
    ) x
    WHERE c.carpark_type = 'MSCP'
)
SELECT
    carpark_ID AS MSCP_ID,
    vehicle_type AS VehicleType,
    COUNT(*) AS NumberOfWeekdayParkingLessThan1Hour
FROM MatchedSessions
WHERE
    duration_minutes < 60
    AND weekday_number BETWEEN 2 AND 6
GROUP BY carpark_ID, vehicle_type
ORDER BY carpark_ID, vehicle_type;
```

**Output:**

	MSCP_ID	VehicleType	NumberOfWeekdayParkingLessThan1Hour
1	CP001	car	15
2	CP001	commercial	1
3	CP001	motorcycle	2
4	CP003	car	9
5	CP003	commercial	1
6	CP003	motorcycle	2
7	CP004	car	5
8	CP004	commercial	1
9	CP004	motorcycle	2
10	CP006	car	5
11	CP006	commercial	1
12	CP008	car	5
13	CP008	commercial	1
14	CP008	motorcycle	1
15	CP010	car	5
16	CP010	motorcycle	1
17	CP012	car	2
18	CP012	commercial	2
19	CP012	motorcycle	2
20	CP014	car	4
21	CP014	commercial	1

## 5.2 Query 2

For each carpark, list down the total revenue collected for both short-term parking and season parking separately.

**Query:**

```
SELECT
    c.carpark_ID,
    c.carpark_type,
    c.totalRevenueShortTerm AS short_term_parking_revenue,
    c.totalRevenueSeasonParking AS season_parking_revenue,
    (c.totalRevenueShortTerm + c.totalRevenueSeasonParking) AS
total_revenue
FROM
    Carpark c
ORDER BY
    c.carpark_ID;
```

**Output:**

	carpark_ID	carpark_type	short_term_parking_revenue	season_parking_revenue	total_revenue
1	CP001	MSCP	57.55	1950.00	2007.55
2	CP002	Surface	4.25	630.00	634.25
3	CP003	MSCP	33.35	835.00	868.35
4	CP004	MSCP	12.35	240.00	252.35
5	CP005	Surface	4.40	150.00	154.40
6	CP006	MSCP	14.25	725.00	739.25
7	CP007	Surface	3.05	0.00	3.05
8	CP008	MSCP	11.35	525.00	536.35
9	CP009	Surface	2.50	0.00	2.50
10	CP010	MSCP	10.50	765.00	775.50
11	CP011	Surface	3.60	0.00	3.60
12	CP012	MSCP	12.25	520.00	532.25
13	CP013	Surface	3.60	0.00	3.60
14	CP014	MSCP	11.60	0.00	11.60
15	CP015	Surface	0.65	0.00	0.65

### 5.3 Query 3

List down the season parking holders who are not resident at the HDB block that linked to the carpark. For each pass holder, count how many months they have subscribed to the season parking, broken down by different carparks.

**Query:**

```
WITH SPP AS (
    SELECT
        spp.purchaser_NRIC,
        spp.carpark_ID,
        DATEFROMPARTS(
            TRY_CONVERT(int, spp.purchaseYear),
            CASE spp.purchaseMonth
                WHEN 'January' THEN 1 WHEN 'February' THEN 2
                WHEN 'March' THEN 3 WHEN 'April' THEN 4
                WHEN 'May' THEN 5 WHEN 'June' THEN 6
                WHEN 'July' THEN 7 WHEN 'August' THEN 8
                WHEN 'September' THEN 9 WHEN 'October' THEN 10
                WHEN 'November' THEN 11 WHEN 'December' THEN 12
            END,
            1
        ) AS month_key
    FROM dbo.SeasonParkingPass AS spp
)
SELECT
    p.NRIC AS holder_NRIC,
    p.name AS holder_name,
    s.carpark_ID,
    COUNT(DISTINCT s.month_key) AS months_subscribed
FROM SPP AS s
JOIN dbo.Person AS p ON p.NRIC = s.purchaser_NRIC
LEFT JOIN dbo.HDBAddress AS ha
    ON ha.unit_no = p.unit_no AND ha.postal_code =
p.postal_code
WHERE (ha.carpark_ID IS NULL OR ha.carpark_ID <> s.carpark_ID)
GROUP BY
    p.NRIC, p.name, s.carpark_ID
HAVING COUNT(DISTINCT s.month_key) > 0
ORDER BY
    p.name, s.carpark_ID;
```

## Output:

	holder_NRIC	holder_name	carpark_ID	months_subscribed
1	S9012348M	Aaron Tan Zhi Hao	CP001	1
2	S2345672P	Abigail Chen Li Ying	CP001	1
3	S0123457T	Amanda Koh Xin Ru	CP001	1
4	S0123457T	Amanda Koh Xin Ru	CP008	1
5	S5678902O	Andrew Ng Wei Lun	CP001	1
6	S5678902O	Andrew Ng Wei Lun	CP010	1
7	S8901238V	Ava Lim Xin Ru	CP003	1
8	S7890126K	Benjamin Wong Jun Wei	CP001	1
9	S5678903Y	Brandon Wong Wei Kang	CP001	1
10	S5678903Y	Brandon Wong Wei Kang	CP010	1
11	S9012346S	Brian Teo Jun Wei	CP001	1
12	S9012346S	Brian Teo Jun Wei	CP012	1
13	S6789015J	Chloe Lim Yi Xuan	CP001	1
14	S3456782G	Christopher Lau Jun Xiang	CP001	1
15	S6789014Z	Crystal Ng Hui En	CP001	1
16	S3456789C	David Wong Kai Seng	CP005	1
17	S8901234H	Emily Koh Li Ying	CP005	1
18	S6789016T	Emma Tan Jia Xuan	CP003	1
19	S1234569U	Eric Lau Zhi Hong	CP001	4
20	S9012349W	Ethan Wong Zhi Hong	CP003	1
21	S2345671F	Grace Koh Li Hui	CP001	1
22	S8901236B	Hannah Lee Jia Wen	CP001	1
23	S0123459N	Isabella Lee Xin Yi	CP001	1
24	S7890124Q	Jason Lim Kai Ming	CP001	1
25	S7890124Q	Jason Lim Kai Ming	CP008	1
26	S6789012F	Jennifer Ng Hui Min	CP005	1
27	S1234567A	John Tan Wei Ming	CP003	1
28	S1234567A	John Tan Wei Ming	CP005	1
29	S5678904I	Jonathan Ong Kai Wen	CP001	1
30	S7890127U	Joshua Ong Wei Lun	CP003	1
31	S7890125A	Justin Tan Zhi Wei	CP001	1
32	S3456780M	Kevin Tan Jun Hao	CP008	2
33	S3456781W	Marcus Ong Jun Kai	CP001	1
34	S3456781W	Marcus Ong Jun Kai	CP003	2
35	S2345678B	Mary Lim Siew Hua	CP003	1
36	S2345678B	Mary Lim Siew Hua	CP005	1
37	S5678905S	Matthew Lau Kai Ming	CP003	1
38	S0123458D	Melissa Chen Xin Ying	CP001	1
39	S5678901E	Michael Chen Jie	CP005	1
40	S4567894R	Natalie Koh Hui Min	CP003	1
41	S1234561O	Nathan Lim Wei Jie	CP001	1
42	S1234560E	Nicholas Teo Wei Ming	CP001	1

43	S8901235R	Nicole Chen Hui Ting	CP001	1
44	S8901235R	Nicole Chen Hui Ting	CP012	1
45	S4567893H	Olivia Tan Hui Qing	CP001	1
46	S4567891N	Rachel Wong Li Qin	CP001	1
47	S4567891N	Rachel Wong Li Qin	CP008	1
48	S7890123G	Robert Teo Boon Kiat	CP005	1
49	S9012347C	Ryan Lim Jun Heng	CP001	1
50	S2345670V	Samantha Tan Yi Ling	CP001	1
51	S2345670V	Samantha Tan Yi Ling	CP002	2
52	S3456783Q	Samuel Teo Jun Hao	CP001	1
53	S4567890D	Sarah Lee Mei Ling	CP005	1
54	S8901237L	Sophia Ng Jia Hui	CP001	1
55	S6789013P	Stephanie Lee Jia Yi	CP001	1
56	S6789013P	Stephanie Lee Jia Yi	CP010	2
57	S4567892X	Vivian Lim Mei Xuan	CP001	1
58	S4567892X	Vivian Lim Mei Xuan	CP008	1

## 5.4 Query 4

List down the name of the vehicle owner and their vehicle registration number who committed parking offences at the carpark where they are not the residents. Count the number of offences and total amount of fines.

### Query:

```

USE sdabg5;
GO

SELECT
    p.name AS VehicleOwner,
    po.VRN,
    e.carpark_ID AS OffenseCarpark,
    COUNT(*) AS NumberOfOffenses,
    SUM(po.total_fine) AS TotalFines,
    h.street_name AS ResidentStreet,
    h.carpark_ID AS ResidentCarpark,
    CASE
        WHEN h.carpark_ID IS NULL THEN 'No Linked Address'
        WHEN h.carpark_ID = e.carpark_ID THEN 'Resident'
        ELSE 'Non-Resident'
    END AS ResidentStatus
FROM ParkingOffense po
JOIN Vehicle v ON po.VRN = v.VRN
JOIN Person p ON v.owner_NRIC = p.NRIC

```

```

JOIN Entry e ON po.VRN = e.VRN AND po.date = e.entry_date
LEFT JOIN HDBAddress h ON p.unit_no = h.unit_no AND p.postal_code
= h.postal_code
WHERE h.carpark_ID IS NULL OR h.carpark_ID != e.carpark_ID
GROUP BY p.name, po.VRN, e.carpark_ID, h.street_name,
h.carpark_ID
ORDER BY TotalFines DESC, NumberOffenses DESC;

```

## Output:

	VehicleOwner	VRN	OffenseCarpark	NumberOfOffenses	TotalFines	ResidentStreet	ResidentCarpark	ResidentStatus
1	Emily Koh Li Ying	SBE3456Q	CP001	1	80.00	Jurong West Street 62	CP002	Non-Resident

## 5.5 Query 5

When 90% of season parking passes for a particular month and carpark (all parking lots) are sold, only the residents living in the HDB block linked to the carpark who have not purchased any season parking pass can purchase the remaining pass. Prepare your data and query to simulate the success and fail scenario for non-resident.

## Query:

```

USE sdabg5;
GO

CREATE VIEW PassesSoldCount AS
SELECT
    C.carpark_ID AS CarparkID,
    (SELECT SUM(lot_count) FROM Includes WHERE
Includes.carpark_ID = C.carpark_ID) AS NumberOfLots,
    DATEFROMPARTS(YEAR(SPP.validityTo), MONTH(SPP.validityTo), 1)
AS PassMonthYear,
    COUNT(SPP.UTR) AS PassesSold
FROM
    Carpark AS C
JOIN
    SeasonParkingPass AS SPP ON C.carpark_ID = SPP.carpark_ID
GROUP BY
    C.carpark_ID,
    DATEFROMPARTS(YEAR(SPP.validityTo), MONTH(SPP.validityTo),
1);
GO

```

```

CREATE VIEW QuotaStatus_AllMonths AS
SELECT
    CarparkID,
    PassMonthYear,
    PassesSold,
    NumberOfLots,
    CASE
        WHEN PassesSold = NumberOfLots
        THEN 'FULL'
        WHEN PassesSold >= NumberOfLots * 0.9
        THEN 'RESTRICTED'
        ELSE 'OPEN'
    END AS SaleStatus
FROM
    PassesSoldCount;
GO

SELECT
    p.NRIC,
    p.name,
    QS.CarparkID,
    QS.PassMonthYear,
    QS.PassesSold,
    QS.NumberOfLots,
    CAST(QS.PassesSold * 100.0 / QS.NumberOfLots AS DECIMAL(5,2))
AS CapacityPercent,
    QS.SaleStatus,
    CASE
        WHEN QS.SaleStatus = 'RESTRICTED' OR QS.SaleStatus =
        'FULL'
        THEN 'FAILURE: Season pass at or above 90% capacity -
restricted to residents only'
        WHEN EXISTS (
            SELECT 1
            FROM SeasonParkingPass AS SPP
            WHERE SPP.purchaser_NRIC = p.NRIC
            AND SPP.carpark_ID = QS.CarparkID
            AND SPP.validityTo >= QS.PassMonthYear
            AND SPP.validityTo < DATEADD(MONTH, 1,
QS.PassMonthYear)
        )
        THEN 'FAILURE: Already has season pass for this period'
        ELSE 'SUCCESS: Season pass below 90% capacity - purchase
allowed'
    END AS [PurchaseStatus]
FROM

```

```

    Person AS p
CROSS JOIN
    QuotaStatus_AllMonths AS QS
WHERE
    p.NRIC IN ('S1234569U', 'S0123456J')
    AND QS.PassMonthYear = '2025-02-01'
    AND QS.CarparkID IN ('CP001', 'CP005')
ORDER BY
    QS.CarparkID, p.NRIC;
GO

DROP VIEW QuotaStatus_AllMonths;
DROP VIEW PassesSoldCount;
GO

```

## Output:

	NRIC	name	CarparkID	PassMonthYear	PassesSold	NumberofLots	CapacityPercent	SaleStatus	PurchaseStatus
1	S0123456J	Michelle Tan Xin Yi	CP001	2025-02-01	33	85	38.82	OPEN	SUCCESS: Season pass below 90% capacity - purchase allowed
2	S1234569U	Eric Lau Zhi Hong	CP001	2025-02-01	33	85	38.82	OPEN	FAILURE: Already has season pass for this period
3	S0123456J	Michelle Tan Xin Yi	CP005	2025-02-01	15	6	250.00	RESTRICTED	FAILURE: Season pass at or above 90% capacity - restricted to residents only
4	S1234569U	Eric Lau Zhi Hong	CP005	2025-02-01	15	6	250.00	RESTRICTED	FAILURE: Season pass at or above 90% capacity - restricted to residents only

## 5.6 Query 6

Identify the household (address) that purchases more than three season parking for the same month. List down the name of vehicle owners and the vehicle registration number.

### Query:

```

USE sdabg5;
GO

SELECT DISTINCT
    h.street_name AS StreetName,
    h.unit_no AS UnitNumber,
    h.postal_code AS PostalCode,
    p.name AS Name,
    v.VRN,
    spp.purchaseMonth + ' ' + spp.purchaseYear AS SeasonPeriod
FROM SeasonParkingPass spp
JOIN Person p ON spp.purchaser_NRIC = p.NRIC
JOIN HDBAddress h ON p.unit_no = h.unit_no AND p.postal_code =
h.postal_code

```

```

JOIN Vehicle v ON v.owner_NRIC = p.NRIC
WHERE EXISTS (
    SELECT 1
    FROM SeasonParkingPass spp2
    JOIN Person p2 ON spp2.purchaser_NRIC = p2.NRIC
    JOIN HDBAddress h2 ON p2.unit_no = h2.unit_no AND
p2.postal_code = h2.postal_code
    WHERE h2.street_name = h.street_name
        AND h2.unit_no = h.unit_no
        AND h2.postal_code = h.postal_code
        AND spp2.purchaseMonth = spp.purchaseMonth
        AND spp2.purchaseYear = spp.purchaseYear
    GROUP BY h2.street_name, h2.unit_no, h2.postal_code,
spp2.purchaseMonth, spp2.purchaseYear
    HAVING COUNT(*) > 3
)
ORDER BY StreetName, UnitNumber, Name, VRN;

```

## Output:

	StreetName	UnitNumber	PostalCode	Name	VRN	SeasonPeriod
1	Jurong West Avenue 1	01-102	640301	David Wong Kai Seng	FBA9999E	February 2025
2	Jurong West Street 51	02-207	640502	Stephanie Lee Jia Yi	FBN6789U	January 2025
3	Jurong West Street 51	02-207	640502	Stephanie Lee Jia Yi	SBJ0123Y	January 2025
4	Jurong West Street 52	05-601	640601	Angela Lim Hui Xian	FBC3456U	November 2024
5	Jurong West Street 52	05-601	640601	Angela Lim Hui Xian	SBR8901J	November 2024
6	Jurong West Street 61	01-101	640101	John Tan Wei Ming	SBA1234A	November 2024
7	Jurong West Street 61	01-101	640101	John Tan Wei Ming	SBN4567D	November 2024
8	Jurong West Street 61	01-101	640101	John Tan Wei Ming	SBS9012L	November 2024
9	Jurong West Street 61	07-412	640103	Ethan Wong Zhi Hong	FBM5678P	February 2025
10	Jurong West Street 61	07-412	640103	Kevin Tan Jun Hao	SBH8901V	February 2025
11	Jurong West Street 61	07-412	640103	Kevin Tan Jun Hao	SCO1234R	February 2025

## 6. Additional efforts

### 6.1 Additional Query 1

#### Resident Status Classification and Eligibility Analysis:

This dataset highlights carparks where the average number of vehicles present at any given time is significantly below their total capacity. Such insights can be valuable for urban planning efforts, LTA data analysis, and ERP system optimisation.

#### Query:

```
USE sdabg5;
GO

SELECT
    c.carpark_ID AS CarparkID,
    (SELECT SUM(lot_count) FROM Includes WHERE
    Includes.carpark_ID = c.carpark_ID) AS NumberOfLots,
    COUNT(e.VRN) AS TotalSessions,

    CAST(
        (COUNT(e.VRN) * 100.0) / NULLIF((SELECT SUM(lot_count)
    FROM Includes WHERE Includes.carpark_ID = c.carpark_ID), 0)
        AS DECIMAL(6,2)
    ) AS SessionsPer100Lots,

    CAST(
        AVG(CAST(ex.amount_paid AS DECIMAL(10,2)))
        AS DECIMAL(10,2)
    ) AS AvgAmountPaid,

    CAST(
        AVG(DATEDIFF(MINUTE,
            CAST(e.entry_date AS DATETIME) + CAST(e.entry_time AS
DATETIME),
            CAST(ex.exit_date AS DATETIME) + CAST(ex.exit_time AS
DATETIME))) / 60.0
        AS DECIMAL(10,2)
    ) AS AvgDurationHours,

    CASE
        WHEN (COUNT(e.VRN) * 1.0 / NULLIF((SELECT SUM(lot_count)
    FROM Includes WHERE Includes.carpark_ID = c.carpark_ID) / 20.0,
    0)) < 0.4 THEN 'Underutilized'
```

```

        WHEN (COUNT(e.VRN) * 1.0 / NULLIF((SELECT SUM(lot_count)
FROM Includes WHERE Includes.carpark_ID = c.carpark_ID) / 20.0,
0)) < 0.7 THEN 'Moderate Usage'
        ELSE 'Efficiently Utilized'
END AS UsageStatus

FROM
    Carpark AS c
LEFT JOIN
    Entry AS e ON c.carpark_ID = e.carpark_ID
LEFT JOIN
    [Exit] AS ex ON e.carpark_ID = ex.carpark_ID AND e.pass_UID =
ex.pass_UID
GROUP BY
    c.carpark_ID
ORDER BY
    SessionsPer100Lots DESC;

```

## Output:

	CarparkID	NumberOfLots	TotalSessions	SessionsPer100Lots	AvgAmountPaid	AvgDurationHours	UsageStatus
1	CP001	85	56	65.88	1.03	1.90	Efficiently Utilized
2	CP003	140	28	20.00	1.19	1.08	Efficiently Utilized
3	CP010	88	14	15.91	0.75	2.72	Efficiently Utilized
4	CP002	40	5	12.50	0.85	2.60	Efficiently Utilized
5	CP005	33	4	12.12	1.10	3.30	Efficiently Utilized
6	CP004	115	13	11.30	0.95	1.08	Efficiently Utilized
7	CP008	133	12	9.02	0.95	2.13	Efficiently Utilized
8	CP006	170	15	8.82	0.95	1.35	Efficiently Utilized
9	CP009	38	3	7.89	0.83	0.75	Efficiently Utilized
10	CP011	43	3	6.98	1.20	0.75	Efficiently Utilized
11	CP007	47	3	6.38	1.02	1.08	Efficiently Utilized
12	CP014	143	9	6.29	1.29	-0.63	Efficiently Utilized
13	CP013	55	3	5.45	1.20	0.75	Efficiently Utilized
14	CP012	215	11	5.12	1.11	2.63	Efficiently Utilized
15	CP015	39	1	2.56	0.65	0.75	Moderate Usage

## 6.2 Additional Query 2

### Analysis of Low-Utilization Carparks by Average Occupancy:

This query automatically classifies season pass holders as residents or non-residents by comparing their registered home address against the carpark they purchased passes for, enabling automated eligibility verification for resident benefits and priority parking access during high-capacity periods.

### Query:

```
USE sdabg5;
GO

SELECT
    spp.pass_UID,
    spp.carpark_ID AS PassCarpark,
    spp.purchaser_NRIC,
    p.name,
    spp.purchaseMonth,
    spp.purchaseYear,
    CASE
        WHEN h.carpark_ID = spp.carpark_ID THEN 'Resident'
        ELSE 'Non-Resident'
    END AS ResidentType,
    h.street_name AS ResidentStreet,
    h.carpark_ID AS ResidentCarpark,
    CASE
        WHEN h.carpark_ID = spp.carpark_ID THEN 'Eligible for
resident benefits'
        WHEN h.carpark_ID IS NULL THEN 'No linked address -
Non-Resident'
        ELSE 'Lives in different carpark area - Non-Resident'
    END AS EligibilityStatus
FROM SeasonParkingPass spp
JOIN Person p ON spp.purchaser_NRIC = p.NRIC
LEFT JOIN HDBAddress h ON p.unit_no = h.unit_no AND p.postal_code
= h.postal_code
ORDER BY ResidentType, spp.carpark_ID, p.name;
GO
```

# Output:

	pass_UID	PassCarpark	purchaser_NRIC	name	purchaseMonth	purchaseYear	ResidentType	ResidentStreet	ResidentCarpark	EligibilityStatus
1	P064	CP001	S1234569U	Eric Lau Zhi Hong	November	2024	Non-Resident	Jurong West Street 51	CP005	Lives in different carpark area - Non-Resident
2	P074	CP001	S1234569U	Eric Lau Zhi Hong	December	2024	Non-Resident	Jurong West Street 51	CP005	Lives in different carpark area - Non-Resident
3	P086	CP001	S1234569U	Eric Lau Zhi Hong	January	2025	Non-Resident	Jurong West Street 51	CP005	Lives in different carpark area - Non-Resident
4	P092	CP001	S4567891N	Rachel Wong Li Qin	February	2025	Non-Resident	Jurong West Avenue 1	CP003	Lives in different carpark area - Non-Resident
5	P075	CP002	S2345670V	Samantha Tan Yi Ling	December	2024	Non-Resident	Jurong West Street 52	CP006	Lives in different carpark area - Non-Resident
6	P065	CP002	S2345670V	Samantha Tan Yi Ling	November	2024	Non-Resident	Jurong West Street 52	CP006	Lives in different carpark area - Non-Resident
7	P066	CP003	S3456781W	Marcus Ong Jun Kai	November	2024	Non-Resident	Jurong West Street 64	CP008	Lives in different carpark area - Non-Resident
8	P076	CP003	S3456781W	Marcus Ong Jun Kai	December	2024	Non-Resident	Jurong West Street 64	CP008	Lives in different carpark area - Non-Resident
9	P090	CP008	S0123457T	Amanda Koh Xin Ru	January	2025	Non-Resident	Jurong West Street 62	CP002	Lives in different carpark area - Non-Resident
10	P084	CP008	S7890124Q	Jason Lim Kai Ming	January	2025	Non-Resident	Jurong West Avenue 2	CP004	Lives in different carpark area - Non-Resident
11	P097	CP008	S3456780M	Kevin Tan Jun Hao	February	2025	Non-Resident	Jurong West Street 61	CP001	Lives in different carpark area - Non-Resident
12	P077	CP008	S3456780M	Kevin Tan Jun Hao	January	2025	Non-Resident	Jurong West Street 61	CP001	Lives in different carpark area - Non-Resident
13	P078	CP008	S4567891N	Rachel Wong Li Qin	January	2025	Non-Resident	Jurong West Avenue 1	CP003	Lives in different carpark area - Non-Resident
14	P087	CP008	S4567892X	Vivian Lim Mei Xuan	January	2025	Non-Resident	Jurong West Street 63	CP007	Lives in different carpark area - Non-Resident
15	P079	CP010	S5678902O	Andrew Ng Wei Lun	January	2025	Non-Resident	Jurong West Street 62	CP002	Lives in different carpark area - Non-Resident
16	P088	CP010	S5678903Y	Brandon Wong Wei Kang	January	2025	Non-Resident	Jurong West Avenue 2	CP004	Lives in different carpark area - Non-Resident
17	P098	CP010	S6789013P	Stephanie Lee Jia Yi	February	2025	Non-Resident	Jurong West Street 51	CP005	Lives in different carpark area - Non-Resident
18	P080	CP010	S6789013P	Stephanie Lee Jia Yi	January	2025	Non-Resident	Jurong West Street 51	CP005	Lives in different carpark area - Non-Resident
19	P081	CP010	S6789013P	Stephanie Lee Jia Yi	January	2025	Non-Resident	Jurong West Street 51	CP005	Lives in different carpark area - Non-Resident
20	P082	CP010	S6789013P	Stephanie Lee Jia Yi	January	2025	Non-Resident	Jurong West Street 51	CP005	Lives in different carpark area - Non-Resident
21	P083	CP010	S6789013P	Stephanie Lee Jia Yi	January	2025	Non-Resident	Jurong West Street 51	CP005	Lives in different carpark area - Non-Resident
	pass_UID	PassCarpark	purchaser_NRIC	name	purchaseMonth	purchaseYear	ResidentType	ResidentStreet	ResidentCarpark	EligibilityStatus
22	P100	CP012	S9012346S	Brian Teo Jun Wei	February	2025	Non-Resident	Jurong West Street 63	CP007	Lives in different carpark area - Non-Resident
23	P085	CP012	S8901235R	Nicole Chen Hui Ting	January	2025	Non-Resident	Jurong West Street 52	CP006	Lives in different carpark area - Non-Resident
24	P067	CP001	S1234567A	John Tan Wei Ming	December	2024	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
25	P046	CP001	S1234567A	John Tan Wei Ming	November	2024	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
26	P047	CP001	S1234567A	John Tan Wei Ming	November	2024	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
27	P048	CP001	S1234567A	John Tan Wei Ming	November	2024	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
28	P049	CP001	S1234567A	John Tan Wei Ming	November	2024	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
29	P041	CP001	S1234567A	John Tan Wei Ming	October	2024	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
30	P091	CP001	S3456780M	Kevin Tan Jun Hao	February	2025	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
31	P042	CP001	S2345678B	Mary Lim Siew Hua	October	2024	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
32	P050	CP001	S2345678B	Mary Lim Siew Hua	November	2024	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
33	P068	CP001	S2345678B	Mary Lim Siew Hua	December	2024	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
34	P071	CP001	S5678901E	Michael Chen Jie	December	2024	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
35	P045	CP001	S5678901E	Michael Chen Jie	October	2024	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
36	P051	CP001	S5678901E	Michael Chen Jie	November	2024	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
37	P052	CP001	S5678901E	Michael Chen Jie	November	2024	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
38	P053	CP001	S5678901E	Michael Chen Jie	November	2024	Resident	Jurong West Street 61	CP001	Eligible for resident benefits
39	P054	CP002	S4567890D	Sarah Lee Mei Ling	November	2024	Resident	Jurong West Street 62	CP002	Eligible for resident benefits
40	P043	CP002	S4567890D	Sarah Lee Mei Ling	October	2024	Resident	Jurong West Street 62	CP002	Eligible for resident benefits
41	P069	CP002	S4567890D	Sarah Lee Mei Ling	December	2024	Resident	Jurong West Street 62	CP002	Eligible for resident benefits
42	P070	CP003	S3456789C	David Wong Kai Seng	December	2024	Resident	Jurong West Avenue 1	CP003	Eligible for resident benefits
	pass_UID	PassCarpark	purchaser_NRIC	name	purchaseMonth	purchaseYear	ResidentType	ResidentStreet	ResidentCarpark	EligibilityStatus
43	P044	CP003	S3456789C	David Wong Kai Seng	October	2024	Resident	Jurong West Avenue 1	CP003	Eligible for resident benefits
44	P055	CP003	S3456789C	David Wong Kai Seng	November	2024	Resident	Jurong West Avenue 1	CP003	Eligible for resident benefits
45	P093	CP003	S3456789C	David Wong Kai Seng	February	2025	Resident	Jurong West Avenue 1	CP003	Eligible for resident benefits
46	P094	CP003	S6789012F	Jennifer Ng Hui Min	February	2025	Resident	Jurong West Avenue 1	CP003	Eligible for resident benefits
47	P056	CP003	S6789012F	Jennifer Ng Hui Min	November	2024	Resident	Jurong West Avenue 1	CP003	Eligible for resident benefits
48	P058	CP004	S9012345I	Daniel Lau Wei Jie	November	2024	Resident	Jurong West Avenue 2	CP004	Eligible for resident benefits
49	P057	CP004	S7890123G	Robert Teo Boon Kiat	November	2024	Resident	Jurong West Avenue 2	CP004	Eligible for resident benefits
50	P073	CP004	S7890123G	Robert Teo Boon Kiat	December	2024	Resident	Jurong West Avenue 2	CP004	Eligible for resident benefits
51	P059	CP005	S0123456J	Michelle Tan Xin Yi	November	2024	Resident	Jurong West Street 51	CP005	Eligible for resident benefits
52	P060	CP006	S2345679L	Angela Lim Hui Xian	November	2024	Resident	Jurong West Street 52	CP006	Eligible for resident benefits
53	P061	CP006	S2345679L	Angela Lim Hui Xian	November	2024	Resident	Jurong West Street 52	CP006	Eligible for resident benefits
54	P062	CP006	S2345679L	Angela Lim Hui Xian	November	2024	Resident	Jurong West Street 52	CP006	Eligible for resident benefits
55	P063	CP006	S2345679L	Angela Lim Hui Xian	November	2024	Resident	Jurong West Street 52	CP006	Eligible for resident benefits
56	P072	CP006	S2345679L	Angela Lim Hui Xian	December	2024	Resident	Jurong West Street 52	CP006	Eligible for resident benefits
57	P095	CP006	S2345679L	Angela Lim Hui Xian	February	2025	Resident	Jurong West Street 52	CP006	Eligible for resident benefits
58	P096	CP006	S8901236B	Hannah Lee Jia Wen	February	2025	Resident	Jurong West Street 52	CP006	Eligible for resident benefits
59	P099	CP012	S2345672P	Abigail Chen Li Ying	February	2025	Resident	Jurong West Street 66	CP012	Eligible for resident benefits
60	P089	CP012	S2345672P	Abigail Chen Li Ying	January	2025	Resident	Jurong West Street 66	CP012	Eligible for resident benefits

## 7. Clarifications

### 7.1. Not all HDB carparks have a free parking time range or free parking days (NULL values)

High-demand carparks often operate with 24/7 charging to prioritise residents who hold season parking passes, as these locations experience consistent usage throughout the day. In contrast, free parking periods are generally offered only at less-used carparks that have spare capacity. Typically, carparks are less crowded between 10:30 p.m. and 7:00 a.m., as well as on weekends and public holidays, when demand for parking decreases. For example, the SQL statement

```
INSERT INTO Carpark (carpark_ID, location, free_parking_range, free_parking_days) VALUES ('CP025', 'Toa Payoh Lorong 1 Blk 101', NULL, NULL);
```

indicates that carpark CP025 does not offer any free parking time range or days, likely because it is a high-demand carpark that must prioritize spaces for season parking holders.

### 7.2. Why some HDB addresses have NULL carpark\_ID

Some HDB addresses may not have a dedicated carpark, as older blocks often share nearby public carparks. In such cases, residents can choose from several nearby parking options instead of having an assigned lot. For new BTO projects, carparks may still be under development and therefore not ready for use. Additionally, certain types of special housing, such as studio apartments or units for the elderly, may offer limited parking availability. As a result, addresses with a NULL value for `carpark_ID` in the database will generally have lower priority when matching carpark information. For example, in the following record —

```
INSERT INTO HDBAddress (unit_no, postal_code, street_name, block_no, carpark_ID) VALUES ('10-101', '530101', 'Toa Payoh Lorong 1', '101', NULL);
```

The `carpark_ID` field is NULL. This could indicate one of the reasons mentioned above, such as the carpark for that particular address still being under construction.

## Appendix: Individual Contribution Form

Full Name	Individual Contribution to Lab 1 Submission	Percentage of Contribution	Signature
Lai Kah Seng	Drawing the ER Diagram	20	
Agarwal Dhruvikaa	Drawing the ER Diagram	20	
Hasini Lagatapathi	Drawing the ER Diagram	20	
Sridhar Abhinav	Drawing the ER Diagram	20	
Seth Yew Kuan Yang	Drawing the ER Diagram	20	

Full Name	Individual Contribution to Lab 3 Submission	Percentage of Contribution	Signature
Lai Kah Seng	Updating ER Diagram and Relations	20	
Agarwal Dhruvikaa	Updating ER Diagram and Relations	20	
Hasini Lagatapathi	Updating ER Diagram and Relations	20	
Sridhar Abhinav	Updating ER Diagram and Relations	20	
Seth Yew Kuan Yang	Updating ER Diagram and Relations	20	

Full Name	Individual Contribution to Lab 5 Submission	Percentage of Contribution	Signature

Lai Kah Seng	Report writing and building the database	20	
Agarwal Dhruvikaa	Report writing and building the database	20	
Hasini Lagatapathi	Report writing and building the database	20	
Sridhar Abhinav	Report writing and building the database	20	
Seth Yew Kuan Yang	Report writing and building the database	20	

## Appendix: Use of AI Tool(s) in Lab Work

Each team member should indicate either A or B.

- A. I affirm that my contribution(s) to the lab work is my own, produced without help from any AI tool(s)
- B. I affirm that my contribution(s) to the lab work has been produced with the help from AI tool(s)

Full Name	Signature	Date	A or B
Lai Kah Seng		6/11/2025	A
Agarwal Dhruvikaa		6/11/2025	A
Hasini Lagatapathi		6/11/2025	A
Sridhar Abhinav		6/11/2025	A

Seth Yew Kuan Yang		6/11/2025	A
--------------------	--	-----------	---

By signing this form, you declare that the above affirmation made is true and that you have read and understood NTU's policy on the use of AI tools.