2CS402 – DATABASE MANAGEMENT SYSTEM INNOVATIVE ASSIGNMENT

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Introduction : Bus Travel – Management System

This Management system helps to maintain details of Working Drivers, their Managers, Buses registered under the Travel Corporation , Passenger details , Passenger's booking details , travel routes and Journey details of the in-service buses. It helps to override the problems prevailing in the practicing manual system. This project aims to simplify the task of maintaining and filtering records of the above specified detail items in the Travel Corporation.

Table Details :

Driver-Details Table: - Keeps the record of all the Drivers i.e. their Driver-id, name, phone-number, salary, DOB, Hire-Date, Manager-ID, rating and Assigned Bus-ID.

Manager-Details Table: - Keeps the record of all the Driver-Managers i.e. their Manager-id, name, phone-number, DOB, Hire-Date and number – of - sub-workers.

Bus-details Table: - Keeps the record of all the Buses inservice under the Travel Corporation and this table consists entities such as Bus-ID , bus-type , ac/non-ac type, seat-strength, owner-registration details and bus' Lease Status.

Garage-details Table: - Keeps the record of Assigned garages to the Buses i.e., Garage-ID, Bus-ID, name and Address.
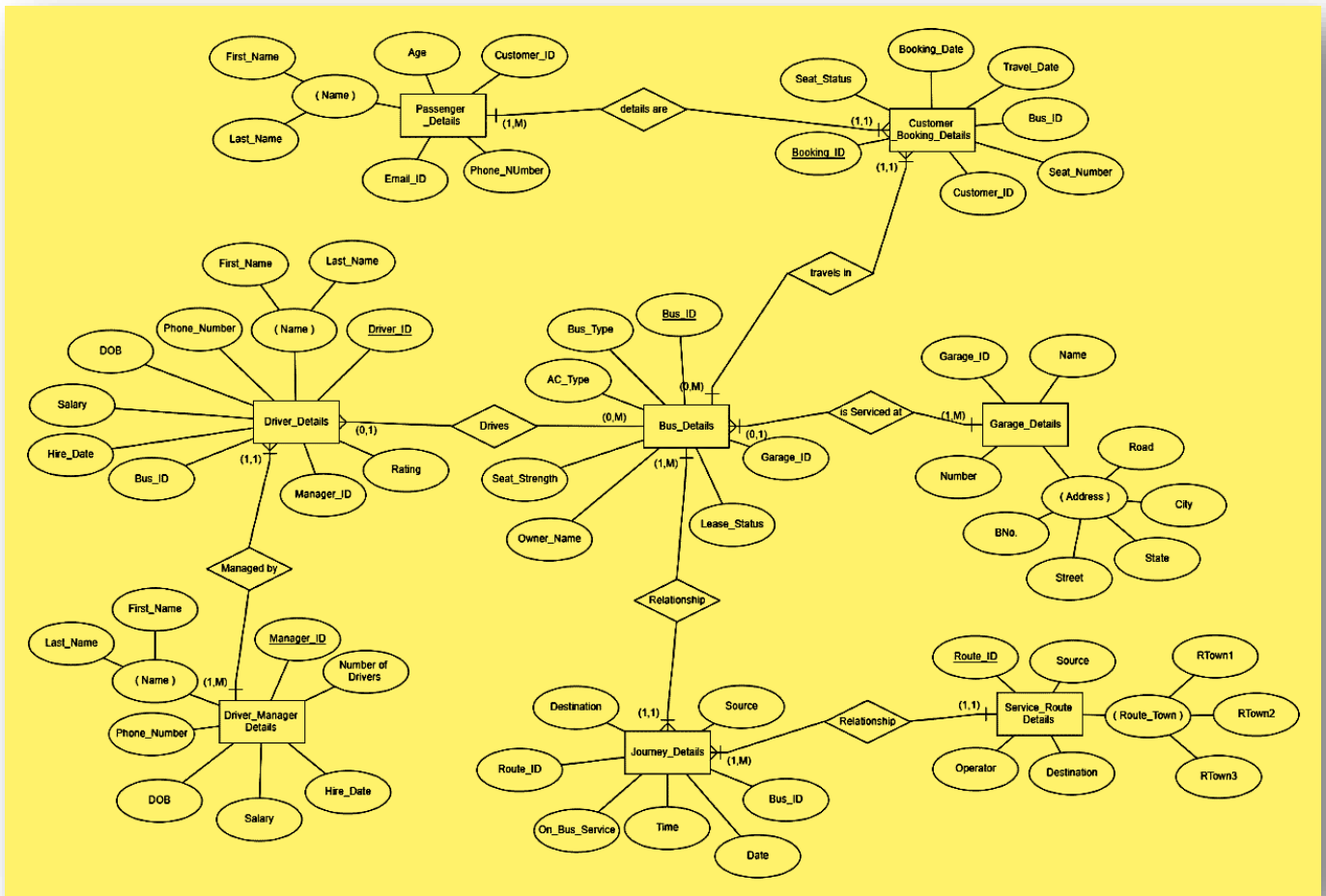
Journey-details Table: - Keeps the record of all Assigned-Bus-Journey i.e., Journey-ID, Source , Destination , Journey Date , Bus-Time , status of On-Bus-Service , Bus-ID and Route-ID.

Service-Route-details Table: - Keeps the record of specific-details of the route for the In-service Bus i.e., Route-ID , source-town , route-town1 , route-town2 , route-town3 , destination and Operator.
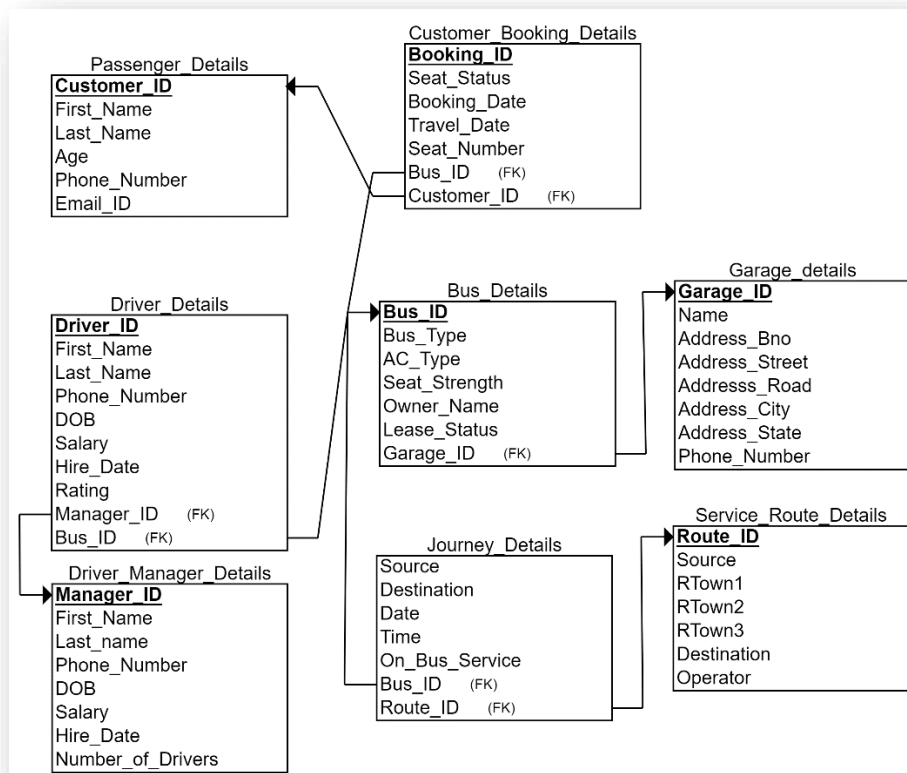
Passenger-details Table: - Keeps the record of passenger-details i.e., Passenger-Name, Passenger Age, Passenger-Phone-Number , Passenger email-id and Passenger – Customer-ID.

Customer-Booking-Details Table: - Keeps the record of details of Customer – Bookings i.e., Booking-ID, Seat-Status, Booking-Date, Travel-Date, Journey-ID, Seat Number and Customer-ID.

ER – Model

ER-Model diagram containing entities and attributes:

Passenger_Details — First_Name, Last_Name, (Name), Age, Customer_ID, Email_ID, Phone_NUmber — "details are" (1,M)/(1,1) — **Customer_Booking_Details** — Seat_Status, Booking_Date, Travel_Date, Bus_ID, Booking_ID, Seat_Number, Customer_ID (1,1)

travels in (0,M)

Driver_Details — First_Name, Last_Name, (Name), Driver_ID, Phone_Number, DOB, Salary, Hire_Date, Bus_ID, Rating, Manager_ID — "Drives" (0,1)/(0,M) — **Bus_Details** — Bus_Type, Bus_ID, AC_Type, Seat_Strength, Owner_Name, Lease_Status, Garage_ID (0,1) — "is Serviced at" (1,M) — **Garage_Details** — Garage_ID, Name, Number, (Address), BNo., Street, Road, City, State

"Managed by" (1,1)/(1,M)

Driver_Manager_Details — First_Name, Last_Name, (Name), Manager_ID, Number of Drivers, Phone_Number, DOB, Salary, Hire_Date

"Relationship" (1,M)

Journey_Details — Destination, Source, Route_ID, On_Bus_Service, Time, Date, Bus_ID (1,1)/(1,M) — "Relationship" (1,1) — **Service_Route_Details** — Route_ID, Source, (Route_Town), RTown1, RTown2, RTown3, Operator, Destination

Relational Model

Passenger_Details
- **Customer_ID**
- First_Name
- Last_Name
- Age
- Phone_Number
- Email_ID

Customer_Booking_Details
- **Booking_ID**
- Seat_Status
- Booking_Date
- Travel_Date
- Seat_Number
- Bus_ID (FK)
- Customer_ID (FK)

Driver_Details
- **Driver_ID**
- First_Name
- Last_Name
- Phone_Number
- DOB
- Salary
- Hire_Date
- Rating
- Manager_ID (FK)
- Bus_ID (FK)

Bus_Details
- **Bus_ID**
- Bus_Type
- AC_Type
- Seat_Strength
- Owner_Name
- Lease_Status
- Garage_ID (FK)

Garage_details
- **Garage_ID**
- Name
- Address_Bno
- Address_Street
- Addresss_Road
- Address_City
- Address_State
- Phone_Number

Driver_Manager_Details
- **Manager_ID**
- First_Name
- Last_name
- Phone_Number
- DOB
- Salary
- Hire_Date
- Number_of_Drivers

Journey_Details
- Source
- Destination
- Date
- Time
- On_Bus_Service
- Bus_ID (FK)
- Route_ID (FK)

Service_Route_Details
- **Route_ID**
- Source
- RTown1
- RTown2
- RTown3
- Destination
- Operator

Table Driver-Details

```
CREATE TABLE driver_details
        ( driver_id              VARCHAR2(5) PRIMARY KEY CHECK(driver_id like 'D%') NOT NULL,
          name                   VARCHAR2(20) NOT NULL,
          phone_number    NUMBER(10),
          DOB                    DATE NOT NULL,
          salary           NUMBER(5),
          hire_date              DATE NOT NULL,
          manager_id        VARCHAR2(5) CHECK(manager_id like'M%'),
          rating            NUMBER(1) CHECK(rating<=5),
          assigned_bus_id  VARCHAR2(5) CHECK(assigned_bus_id like 'B%'),
          CONSTRAINT dd_fk
          FOREIGN KEY(manager_id) REFERENCES manager_details(manager_id),
          FOREIGN KEY(assigned_bus_id) REFERENCES bus_details(bus_id) ON DELETE SET NULL
        );
```

```
SQL> select * from driver_details;

DRIVE NAME                 PHONE_NUMBER DOB            SALARY HIRE_DATE MANAG      RATING ASSIG
----- -------------------- ------------ --------- ---------- --------- ----- ---------- -----
D01   Karli Jones            1632051165 25-JAN-86      15000 15-MAR-01 M01            4 B01
D02   Sator Kallis           9046506528 15-MAY-90      16000 12-MAY-02 M01            4 B03
D03   Bellis Hay             5056918688 21-OCT-89      15000 27-APR-05 M01            4 B02
D04   Will Collins           2186642983 31-DEC-84      14000 13-JAN-03 M01            3 B04
D05   Harry Kares            9682651565 05-JUL-89      15000 19-JAN-03 M02            3 B05
D06   Winston Kal            9946596929 16-AUG-90      15000 11-MAR-01 M02            4 B06
D07   Ben Foley              9326911689 20-OCT-81      14000 07-JAN-02 M02            4 B07
D08   Ani Willis             9996688983 01-JAN-80      16000 12-NOV-02 M02            4 B08
D09   Justin Achola          8732651165 12-APR-86      14000 10-NOV-02 M03            4 B09
D10   Zach Jensen            9111506528 13-JUL-82      15000 27-MAY-01 M03            4 B10
D11   Clay Jensen            9096942088 01-NOV-80      16000 30-JAN-02 M03            4 B11

DRIVE NAME                 PHONE_NUMBER DOB            SALARY HIRE_DATE MANAG      RATING ASSIG
----- -------------------- ------------ --------- ---------- --------- ----- ---------- -----
D12   John Davis             9916645583 29-JAN-81      16000 01-NOV-01 M03            4 B12
D13   Bryce Williams         8932781165 20-FEB-80      15000 05-SEP-02 M04            4 B01
D14   Joey Baker             9786911528 11-JUL-87      18000 21-DEC-03 M04            3 B02
D15   Jays Walker            9786518989 01-DEC-80      16000 20-DEC-02 M04            4 B03
D16   Munis Waller           9175342083 14-OCT-79      15000 25-DEC-07 M04            3 B04

16 rows selected.
```

Table Manager-Details

```
CREATE TABLE manager_details
        ( manager_id             VARCHAR2(5) PRIMARY KEY CHECK(manager_id like 'M%') NOT NULL,
          name                   VARCHAR2(20) NOT NULL,
          phone_number    NUMBER(10),
          DOB                    DATE NOT NULL,
          hire_date              DATE NOT NULL,
          sub_workers     NUMBER(2)
        );
```

```
SQL> select * from manager_details;

MANAG NAME                 PHONE_NUMBER DOB           HIRE_DATE SUB_WORKERS
----- -------------------- ------------ --------- --------- -----------
M01   Harry Jones            1632051165 25-JAN-86 15-MAR-01           4
M02   Jen Kallis             9046506528 15-MAY-90 17-MAR-01           4
M03   Ben Haywire            5056918688 21-SEP-89 27-FEB-02           4
M04   Collins Willis         2186642983 31-DEC-85 15-NOV-01           3
```

Table Bus-Details

```
CREATE TABLE bus_details
    ( bus_id          VARCHAR2(5) PRIMARY KEY CHECK(bus_id like 'B%') NOT NULL,
      bus_type            VARCHAR2(9) CHECK(bus_type in ('seater','sleeper')) NOT NULL,
      ac_nonac            VARCHAR2(6) CHECK(ac_nonac in ('ac','non-ac')) NOT NULL,
      seat_strength   NUMBER(2) NOT NULL,
      owner_reg           VARCHAR2(6) NOT NULL,
      lease_status    VARCHAR2(10)
    );
```

```
SQL> select * from bus_details;

BUS_I BUS_TYPE   AC_NON SEAT_STRENGTH OWNER_ LEASE_STAT
----- ---------- ------ ------------- ------ ----------
B01   seater     ac                42 GJ4895 leased
B02   seater     ac                42 GJ6197 leased
B03   seater     ac                42 GJ6138 leased
B04   seater     non-ac            42 GJ3125 not leased
B05   seater     non-ac            42 GJ8873 not leased
B06   seater     non-ac            42 GJ1123 not leased
B07   sleeper    ac                42 GJ2255 leased
B08   sleeper    ac                42 GJ3333 leased
B09   sleeper    ac                42 GJ8305 leased
B10   sleeper    non-ac            42 GJ8305 not leased
B11   sleeper    non-ac            42 GJ4692 not leased

BUS_I BUS_TYPE   AC_NON SEAT_STRENGTH OWNER_ LEASE_STAT
----- ---------- ------ ------------- ------ ----------
B12   sleeper    non-ac            42 GJ2182 not leased

12 rows selected.
```

Table Garage-Details

```
CREATE TABLE garage_details
    ( garage_id               VARCHAR2(5) PRIMARY KEY CHECK(garage_id like 'G%'),
      bus_id            VARCHAR2(5) CHECK(bus_id like 'B%'),
      name                    VARCHAR2(40) NOT NULL,
      address           VARCHAR2(120),
      CONSTRAINT gd_fk
      FOREIGN KEY(bus_id) REFERENCES bus_details(bus_id) ON DELETE SET NULL
    );
```

```
SQL> select * from garage_details;

GARAG BUS_I NAME                          ADDRESS
----- ----- ----------------------------- -----------------------------------------------------------------
G11   B01   Wiser Automotives             Ground Floor, Tushar Complex, Waghodia, Vadodara, Gujarat
G12   B02   Wiser Automotives             Ground Floor, Tushar Complex, Waghodia, Vadodara, Guajarat
G21   B03   Pfizer Repair Works           GF-1 Repair Works, Opposite BMC Office , Kandivali, Mumbai , Maharashtra
G31   B04   Walker Works                  GF-3 Gajendra Building, Besides HDFC Office Building-1, Jaipur, Rajashthan
G41   B05   Winston Works for Vehicles    GF-3 Hanistan Complex, Besides SBI Main Office, Paldi, Ahmedabad, Gujarat
G42   B06   Winston Works for Vehicles    GF-3 Hanistan Complex, Besides SBI Main Office, Paldi, Ahmedabad, Gujarat
G43   B07   Winston Works for Vehicles    GF-3 Hanistan Complex, Besides SBI Main Office, Paldi, Ahmedabad, Gujarat
G51   B08   Broline Motor Works           Rakoom Complex, Besides SBI Main Office, Bharuch, Gujarat
G52   B09   Broline Motor Works           Rakoom Complex, Besides SBI Main Office, Bharuch, Gujarat
G61   B10   Westminster Repair Works      GF-3 Garud Building, Besides LIC Office Building-1, North-Noida , Delhi
G62   B11   Westminster Repair Works      GF-3 Garud Building, Besides LIC Office Building-1, North-Noida , Delhi

GARAG BUS_I NAME                          ADDRESS
----- ----- ----------------------------- -----------------------------------------------------------------
G71   B12   Wastran Repair Works          Jatayu Building, Besides St.Xavier Office, North-Panji , Goa

12 rows selected.
```

Table Journey-Details

```
CREATE TABLE journey_details
        (
        journey_id              VARCHAR2(5) PRIMARY KEY CHECK(journey_id like 'J%'),
        source          VARCHAR2(20) NOT NULL,
        destination             VARCHAR2(20) NOT NULL,
        jddate          DATE NOT NULL,
        ttime                   TIMESTAMP NOT NULL,
        on_bus_service  VARCHAR2(10) CHECK(on_bus_service IN (NULL,'yes','no')),
        bus_id          VARCHAR2(5)  CHECK(bus_id like 'B%') NOT NULL,
        route_id                VARCHAR2(5) CHECK(route_id like 'R%'),
        CONSTRAINT jd_fk
        FOREIGN KEY(route_id) REFERENCES service_route_details(route_id),
        FOREIGN KEY(bus_id) REFERENCES bus_details(bus_id) ON DELETE SET NULL
        );
```

Total Records : 240

Table Service-Route-Details

```
CREATE TABLE service_route_details

        ( route_id              VARCHAR2(5) PRIMARY KEY CHECK(route_id like 'R%'),

        source_town             VARCHAR2(20) NOT NULL,

        route_town1             VARCHAR2(30),

        route_town2             VARCHAR2(30),

        route_town3             VARCHAR2(30),

        destination             VARCHAR2(30),

        operator VARCHAR2(30) NOT NULL

        );
```
Total Records: 78

Table Passenger-Details

```
CREATE TABLE passenger_details
       ( name                    VARCHAR2(40) NOT NULL,
         age                     VARCHAR2(3) NOT NULL,
         phone_number    NUMBER(10) NOT NULL,
         email_id                VARCHAR2(20),
         customer_id     VARCHAR2(5) PRIMARY KEY CHECK(customer_id like 'C%')
       );
```

Total Records : 38

Table Customer-Booking-Details

```
CREATE TABLE customer_booking_details
        ( booking_id        VARCHAR2(6) PRIMARY KEY CHECK(booking_id like 'BO%'),
          seat_status       VARCHAR2(9) CHECK(seat_status in('confirmed','cancelled')) NOT NULL,
          booking_date      DATE NOT NULL,
          travel_date       DATE NOT NULL,
          journey_id        VARCHAR2(5) CHECK(journey_id like 'J%'),
          seat_num          NUMBER(2) NOT NULL,
          customer_id       VARCHAR2(5) CHECK(customer_id like 'C%'),
          CONSTRAINT cbd_fk
          FOREIGN KEY(journey_id) REFERENCES journey_details(journey_id),
          FOREIGN KEY(customer_id) REFERENCES passenger_details(customer_id) ON DELETE SET NULL
        );
```

```
SQL> select * from customer_booking_details;

BOOKIN SEAT_STAT BOOKING_D TRAVEL_DA JOURN     SEAT_NUM CUSTO
------ --------- --------- --------- ----- ---------- -----
BO01   confirmed 03-JUL-19 05-JUL-19 J21          21 C01
BO02   confirmed 03-JUL-19 05-JUL-19 J21          22 C02
BO03   confirmed 03-JUL-19 05-JUL-19 J21          23 C03
BO04   confirmed 03-JUL-19 05-JUL-19 J21          24 C04
BO05   confirmed 03-JUL-19 05-JUL-19 J21          25 C05
BO06   confirmed 03-JUL-19 05-JUL-19 J21          26 C06
BO07   confirmed 03-JUL-19 05-JUL-19 J21          27 C07
BO08   confirmed 03-JUL-19 05-JUL-19 J21          28 C08
BO09   confirmed 03-JUL-19 05-JUL-19 J21          29 C09
BO10   confirmed 01-JUL-19 05-JUL-19 J21          30 C10
BO11   confirmed 01-JUL-19 05-JUL-19 J21          31 C11

BOOKIN SEAT_STAT BOOKING_D TRAVEL_DA JOURN     SEAT_NUM CUSTO
------ --------- --------- --------- ----- ---------- -----
BO12   confirmed 01-JUL-19 05-JUL-19 J21          32 C12
BO13   confirmed 01-JUL-19 05-JUL-19 J21          33 C13
BO14   confirmed 01-JUL-19 05-JUL-19 J21          34 C14
BO15   confirmed 01-JUL-19 05-JUL-19 J21           1 C15
BO16   confirmed 01-JUL-19 05-JUL-19 J21           2 C16
BO17   confirmed 03-JUL-19 05-JUL-19 J21           3 C17
BO18   confirmed 03-JUL-19 05-JUL-19 J21           4 C18
BO19   confirmed 03-JUL-19 05-JUL-19 J21           5 C19
BO20   confirmed 03-JUL-19 05-JUL-19 J21           6 C20
BO21   confirmed 03-JUL-19 05-JUL-19 J21           7 C21
BO22   confirmed 03-JUL-19 05-JUL-19 J21           8 C22

BOOKIN SEAT_STAT BOOKING_D TRAVEL_DA JOURN     SEAT_NUM CUSTO
------ --------- --------- --------- ----- ---------- -----
BO23   confirmed 03-JUL-19 05-JUL-19 J21           9 C23
BO24   confirmed 03-JUL-19 05-JUL-19 J21          10 C24
BO25   confirmed 03-JUL-19 05-JUL-19 J21          11 C25
BO26   confirmed 28-JUN-19 05-JUL-19 J21          12 C26
BO27   confirmed 04-JUL-19 05-JUL-19 J21          13 C27
BO28   confirmed 04-JUL-19 05-JUL-19 J21          14 C28
BO29   confirmed 04-JUL-19 05-JUL-19 J21          15 C29
BO30   confirmed 04-JUL-19 05-JUL-19 J21          16 C30
BO31   confirmed 04-JUL-19 05-JUL-19 J21          17 C31
BO32   confirmed 04-JUL-19 05-JUL-19 J21          18 C32
BO33   confirmed 04-JUL-19 05-JUL-19 J21          19 C33

BOOKIN SEAT_STAT BOOKING_D TRAVEL_DA JOURN     SEAT_NUM CUSTO
------ --------- --------- --------- ----- ---------- -----
BO34   confirmed 01-JUL-19 05-JUL-19 J21          20 C34
BO35   confirmed 02-JUL-19 05-JUL-19 J21          35 C35
```

SQL Queries

Query-1. List the Buses assigned to a particular journey, Example Source are Bharuch and Delhi.

Query : SELECT * FROM BUS_DETAILS WHERE BUS_ID IN (SELECT DISTINCT BUS_ID FROM JOURNEY_DETAILS WHERE SOURCE IN ('BHARUCH','DELHI'));

```
BUS_I BUS_TYPE   AC_NON SEAT_STRENGTH OWNER_ LEASE_STAT
----- --------   ------ ------------- ------ ----------
B02   seater     ac                42 GJ6197 leased
B07   sleeper    ac                42 GJ2255 leased
B08   sleeper    ac                42 GJ3333 leased
B09   sleeper    ac                42 GJ8305 leased
B10   sleeper    non-ac            42 GJ8305 not leased
B11   sleeper    non-ac            42 GJ4692 not leased

6 rows selected.
```

Query-2. List the Customers taking a particular journey , given Journey-ID = J21 AND Age of Customer is above 50.

Query: SELECT PC.NAME , PC.AGE , PC.PHONE_NUMBER , PC.BOOKING_ID , PC.SEAT_STATUS , PC.JOURNEY_ID,JD.JDDATE JOURNEY_DATE,JD.TTIME TIME FROM JOURNEY_DETAILS JD INNER JOIN (SELECT * FROM PASSENGER_DETAILS PD INNER JOIN CUSTOMER_BOOKING_DETAILS CBD ON PD.CUSTOMER_ID=CBD.CUSTOMER_ID WHERE CBD.SEAT_STATUS='confirmed')PC ON PC.JOURNEY_ID=JD.JOURNEY_ID WHERE JD.JOURNEY_ID='J21' and PC.AGE>=50 ORDER   BY AGE;

```
NAME                          AGE PHONE_NUMBER BOOKIN SEAT_STAT JOURN JOURNEY_D TIME
----                          --- ------------ ------ --------- ----- --------- ----
Fred Jinngs                   51  6057381289 B014 confirmed J21   05-JUL-19 05-JUL-19 06.00.00.000000 AM
Fred Jinngs                   51  9443381289 B022 confirmed J21   05-JUL-19 05-JUL-19 06.00.00.000000 AM
Phil Kevin                    52  2265315320 B007 confirmed J21   05-JUL-19 05-JUL-19 06.00.00.000000 AM
Fredling Jingis               55  9900380089 B030 confirmed J21   05-JUL-19 05-JUL-19 06.00.00.000000 AM
Fredrick Willing              58  6057381289 B038 confirmed J21   05-JUL-19 05-JUL-19 06.00.00.000000 AM
Phineas Kevester              59  9005315320 B023 confirmed J21   05-JUL-19 05-JUL-19 06.00.00.000000 AM
Morgan Ellis                  65  1298973395 B032 confirmed J21   05-JUL-19 05-JUL-19 06.00.00.000000 AM
Ferb Kevlos                   66  2265315320 B031 confirmed J21   05-JUL-19 05-JUL-19 06.00.00.000000 AM

8 rows selected.
```

Query-3. List the Buses assigned to a particular garage, Garage-ID: G11,G21,G42 and G51

QUERY : SELECT B.BUS_ID,B.BUS_TYPE,B.AC_NONAC,B.OWNER_REG,G.NAME GARAGE_NAME,G.GARAGE_ID,G.ADDRESS FROM BUS_DETAILS B JOIN GARAGE_DETAILS G ON B.BUS_ID=G.BUS_ID WHERE G.GARAGE_ID in ('G11','G21','G42','G51');

```
BUS_I BUS_TYPE AC_NON OWNER_ GARAGE_NAME               GARAG ADDRESS
----- -------- ------ ------ --------------------      ----- -------
B01   seater   ac     GJ4895 Wiser Automotives         G11   Ground Floor, Tushar Complex, Waghodia, Vadodara, Gujarat
B03   seater   ac     GJ6138 Pfizer Repair Works        G21   GF-1 Repair Works, Opposite BMC Office , Kandivali, Mumbai , Maharashtra
B06   seater   non-ac GJ1123 Winston Works for Vehicles G42   GF-3 Hanistan Complex, Besides SBI Main Office, Paldi, Ahmedabad, Gujarat
B08   sleeper  ac     GJ3333 Broline Motor Works        G51   Rakoom Complex, Besides SBI Main Office, Bharuch, Gujarat
```

Query-4. List the drivers and assigned buses on journey to Ahmedabad and Udaipur.

QUERY : SELECT DRIVER_ID,NAME,BUS_ID,HIRE_DATE FROM DRIVER_DETAILS D INNER JOIN JOURNEY_DETAILS ON D.ASSIGNED_BUS_ID = JOURNEY_DETAILS.BUS_ID WHERE JOURNEY_DETAILS.DESTINATION IN ('AHMEDABAD','UDAIPUR') GROUP BY DRIVER_ID,NAME,BUS_ID,HIRE_DATE ORDER BY DRIVER_ID;

```
DRIVE NAME                 BUS_I HIRE_DATE
----- -------------------- ----- ---------
D01   Karli Jones          B01   15-MAR-01
D04   Will Collins         B04   13-JAN-03
D05   Harry Kares          B05   19-JAN-03
D06   Winston Kal          B06   11-MAR-01
D07   Ben Foley            B07   07-JAN-02
D11   Clay Jensen          B11   30-JAN-02
D12   John Davis           B12   01-NOV-01
D13   Bryce Williams       B01   05-SEP-02
D16   Munis Waller         B04   25-DEC-07

9 rows selected.
```

Query-5. List the Drivers being managed by Managers M01 and M02.

QUERY : SELECT D1.NAME,D1.DRIVER_ID,D2.MANAGER_ID,D2.NAME FROM DRIVER_DETAILS D1 JOIN MANAGER_DETAILS D2 ON D1.MANAGER_ID=D2.MANAGER_ID WHERE D1.MANAGER_ID IN('M01','M02');

```
NAME                DRIVE MANAG NAME
------------------- ----- ----- --------------------
Karli Jones         D01   M01   Harry Jones
Sator Kallis        D02   M01   Harry Jones
Bellis Hay          D03   M01   Harry Jones
Will Collins        D04   M01   Harry Jones
Harry Kares         D05   M02   Jen Kallis
Winston Kal         D06   M02   Jen Kallis
Ben Foley           D07   M02   Jen Kallis
Ani Willis          D08   M02   Jen Kallis

8 rows selected.
```

Query-6. Give the complete passenger details – name plus all their booking details for Customers C10 and C12

QUERY : SELECT * FROM PASSENGER_DETAILS NATURAL JOIN CUSTOMER_BOOKING_DETAILS WHERE CUSTOMER_ID IN ('C10','C12') ORDER BY CUSTOMER_ID;

```
CUSTO NAME          AGE PHONE_NUMBER EMAIL_ID                        BOOKIN SEAT_STAT BOOKING_D TRAVEL_DA JOURN  SEAT_NUM
----- ------------- --- ------------ ------------------------------- ------ --------- --------- --------- ----- ----------
C10   Hugh Jackman   29 8809966936   bilal@bluwurmind234.tk          BO124  confirmed 01-JUL-19 08-JUL-19 J154        33
C10   Hugh Jackman   29 8809966936   bilal@bluwurmind234.tk          BO48   confirmed 01-JUL-19 06-JUL-19 J08         10
C10   Hugh Jackman   29 8809966936   bilal@bluwurmind234.tk          BO86   confirmed 06-JUL-19 07-JUL-19 J91         10
C10   Hugh Jackman   29 8809966936   bilal@bluwurmind234.tk          BO10   confirmed 01-JUL-19 05-JUL-19 J21         30
C12   George Weah    49 4668960411   0lolo_lola2010858@popichai.com  BO88   confirmed 01-JUL-19 07-JUL-19 J91         22
C12   George Weah    49 4668960411   0lolo_lola2010858@popichai.com  BO126  confirmed 01-JUL-19 08-JUL-19 J154        35
C12   George Weah    49 4668960411   0lolo_lola2010858@popichai.com  BO12   confirmed 01-JUL-19 05-JUL-19 J21         32
C12   George Weah    49 4668960411   0lolo_lola2010858@popichai.com  BO50   confirmed 05-JUL-19 06-JUL-19 J08         12

8 rows selected.
```

Query-7.   List the Buses which have AC.

QUERY : SELECT * FROM BUS_DETAILS WHERE AC_NONAC='ac';

```
BUS_I BUS_TYPE  AC_NON SEAT_STRENGTH OWNER_ LEASE_STAT
----- --------- ------ ------------- ------ ----------
B01   seater    ac                42 GJ4895 leased
B02   seater    ac                42 GJ6197 leased
B03   seater    ac                42 GJ6138 leased
B07   sleeper   ac                42 GJ2255 leased
B08   sleeper   ac                42 GJ3333 leased
B09   sleeper   ac                42 GJ8305 leased

6 rows selected.
```

Query-8.   List the details for Journey with Stops in between and Customer Booking Date 1st of July 2019.

QUERY : SELECT JOURNEY_ID, NAME, CUSTOMER_ID, BOOKING_ID, SOURCE, DESTINATION,BOOKING_DATE,JDDATE,ROUTE_TOWN1,ROUTE_TOWN2,ROUTE_TOWN3 FROM (SELECT P.NAME, P.CUSTOMER_ID, C.BOOKING_ID, C.JOURNEY_ID, C.BOOKING_DATE FROM PASSENGER_DETAILS P JOIN CUSTOMER_BOOKING_DETAILS C ON P.CUSTOMER_ID=C.CUSTOMER_ID) NATURAL JOIN (SELECT J.SOURCE, J.DESTINATION,J.JDDATE,S.ROUTE_TOWN1,S.ROUTE_TOWN2,S.ROUTE_TOWN3,J.JOURNEY_ID FROM JOURNEY_DETAILS J JOIN SERVICE_ROUTE_DETAILS S ON J.ROUTE_ID=S.ROUTE_ID) WHERE BOOKING_DATE = '01-JUL-19' AND (ROUTE_TOWN1 IS NULL OR ROUTE_TOWN2 IS NULL OR ROUTE_TOWN3 IS NULL) ORDER BY JDDATE;

```
JOURN NAME                  CUSTO BOOKIN SOURCE     DESTINATION    BOOKING_D JDDATE    ROUTE_TOWN1       ROUTE_TOWN2       ROUTE_TOWN3
----- ----                  ----- ------ ------     -----------    --------- ------    ----------        ----------        ----------
J08   Eion Morner           C16   BO54   VADODARA   AHMEDABAD      01-JUL-19 06-JUL-19 Anand
J08   Genny Ollins          C19   BO57   VADODARA   AHMEDABAD      01-JUL-19 06-JUL-19 Anand
J08   Hugli Jackler         C18   BO56   VADODARA   AHMEDABAD      01-JUL-19 06-JUL-19 Anand
J08   Rita Wallis           C17   BO55   VADODARA   AHMEDABAD      01-JUL-19 06-JUL-19 Anand
J08   Hugh Jackman          C10   BO48   VADODARA   AHMEDABAD      01-JUL-19 06-JUL-19 Anand
J91   Jamie Vardy           C01   BO77   SURAT      AHMEDABAD      01-JUL-19 07-JUL-19                                     Vadodara
J91   Trent Arnold          C04   BO80   SURAT      AHMEDABAD      01-JUL-19 07-JUL-19                                     Vadodara
J91   Dave Williamson       C25   BO101  SURAT      AHMEDABAD      01-JUL-19 07-JUL-19                                     Vadodara
J91   Kallis Morgan         C24   BO100  SURAT      AHMEDABAD      01-JUL-19 07-JUL-19                                     Vadodara
J91   Phineas Kevester      C23   BO99   SURAT      AHMEDABAD      01-JUL-19 07-JUL-19                                     Vadodara
J91   Fred Jinngs           C22   BO98   SURAT      AHMEDABAD      01-JUL-19 07-JUL-19                                     Vadodara

JOURN NAME                  CUSTO BOOKIN SOURCE     DESTINATION    BOOKING_D JDDATE    ROUTE_TOWN1       ROUTE_TOWN2       ROUTE_TOWN3
----- ----                  ----- ------ ------     -----------    --------- ------    ----------        ----------        ----------
J91   Gill Dennis           C21   BO97   SURAT      AHMEDABAD      01-JUL-19 07-JUL-19                                     Vadodara
J91   Gill Dennis           C13   BO89   SURAT      AHMEDABAD      01-JUL-19 07-JUL-19                                     Vadodara
J91   George Weah           C12   BO88   SURAT      AHMEDABAD      01-JUL-19 07-JUL-19                                     Vadodara
J154  Fredrick Willing      C38   BO152  BHARUCH    SURAT          01-JUL-19 08-JUL-19
J154  Hugh Caprio           C26   BO140  BHARUCH    SURAT          01-JUL-19 08-JUL-19
J154  David Willis          C09   BO123  BHARUCH    SURAT          01-JUL-19 08-JUL-19
J154  Hugh Jackman          C10   BO124  BHARUCH    SURAT          01-JUL-19 08-JUL-19
J154  George Weah           C12   BO126  BHARUCH    SURAT          01-JUL-19 08-JUL-19
J154  Fred Jinngs           C14   BO128  BHARUCH    SURAT          01-JUL-19 08-JUL-19
J154  Gen Jokstar           C27   BO141  BHARUCH    SURAT          01-JUL-19 08-JUL-19
J154  Gill Dennis           C13   BO127  BHARUCH    SURAT          01-JUL-19 08-JUL-19

JOURN NAME                  CUSTO BOOKIN SOURCE     DESTINATION    BOOKING_D JDDATE    ROUTE_TOWN1       ROUTE_TOWN2       ROUTE_TOWN3
----- ----                  ----- ------ ------     -----------    --------- ------    ----------        ----------        ----------
J154  Dave Williamson       C25   BO139  BHARUCH    SURAT          01-JUL-19 08-JUL-19
J154  Genny Ollins          C11   BO125  BHARUCH    SURAT          01-JUL-19 08-JUL-19

24 rows selected.
```

Query-9. List the Customers in Bus B02 for journey on 5th July 2019 with confirmed seat status.

QUERY : SELECT P.CUSTOMER_ID, P.NAME, P.PHONE_NUMBER, BCJ.BOOKING_ID, BCJ.BUS_ID,BCJ.JOURNEY_ID,BCJ.TTIME DATE_TIME FROM PASSENGER_DETAILS P INNER JOIN (SELECT BO.BOOKING_ID, BO.CUSTOMER_ID, BJ.BUS_ID, BJ.JOURNEY_ID,BJ.TTIME FROM CUSTOMER_BOOKING_DETAILS BO INNER JOIN (SELECT B.BUS_ID,J.JOURNEY_ID,J.TTIME FROM JOURNEY_DETAILS J INNER JOIN BUS_DETAILS B ON J.BUS_ID=B.BUS_ID WHERE J.TTIME='05-JULY-2019 06:00:00 AM' AND B.BUS_ID='B02') BJ ON BJ.JOURNEY_ID=BO.JOURNEY_ID WHERE BO.SEAT_STATUS='confirmed') BCJ ON BCJ.CUSTOMER_ID=P.CUSTOMER_ID;

```
CUSTO NAME                           PHONE_NUMBER BOOKIN BUS_I JOURN DATE_TIME
----- ------------------------------ ------------ ------ ----- ----- --------------------------------
C01   Jamie Vardy                      3692029666 BO01   B02   J21   05-JUL-19 06.00.00.000000 AM
C02   Adam Traore                      3381358905 BO02   B02   J21   05-JUL-19 06.00.00.000000 AM
C03   Sandi Malls                      1564337985 BO03   B02   J21   05-JUL-19 06.00.00.000000 AM
C04   Trent Arnold                     5485949405 BO04   B02   J21   05-JUL-19 06.00.00.000000 AM
C05   Mike Forgo                       5934710388 BO05   B02   J21   05-JUL-19 06.00.00.000000 AM
C06   Gabriel Foden                    9698291115 BO06   B02   J21   05-JUL-19 06.00.00.000000 AM
C07   Phil Kevin                       2265315320 BO07   B02   J21   05-JUL-19 06.00.00.000000 AM
C08   Eion Morgan                      1298973395 BO08   B02   J21   05-JUL-19 06.00.00.000000 AM
C09   David Willis                     9982350680 BO09   B02   J21   05-JUL-19 06.00.00.000000 AM
C10   Hugh Jackman                     8809966936 BO10   B02   J21   05-JUL-19 06.00.00.000000 AM
C11   Genny Ollins                     9357843930 BO11   B02   J21   05-JUL-19 06.00.00.000000 AM

CUSTO NAME                           PHONE_NUMBER BOOKIN BUS_I JOURN DATE_TIME
----- ------------------------------ ------------ ------ ----- ----- --------------------------------
C12   George Weah                      4668960411 BO12   B02   J21   05-JUL-19 06.00.00.000000 AM
C13   Gill Dennis                      7180193947 BO13   B02   J21   05-JUL-19 06.00.00.000000 AM
C14   Fred Jinngs                      6057381289 BO14   B02   J21   05-JUL-19 06.00.00.000000 AM
C15   Phoeb Kevin                      2265532012 BO15   B02   J21   05-JUL-19 06.00.00.000000 AM
C16   Eion Morner                      9598973395 BO16   B02   J21   05-JUL-19 06.00.00.000000 AM
C17   Rita Wallis                      9382930680 BO17   B02   J21   05-JUL-19 06.00.00.000000 AM
C18   Hugli Jackler                    8839966936 BO18   B02   J21   05-JUL-19 06.00.00.000000 AM
C19   Genny Ollins                      938753930 BO19   B02   J21   05-JUL-19 06.00.00.000000 AM
C20   George Wowey                     9876960411 BO20   B02   J21   05-JUL-19 06.00.00.000000 AM
C21   Gill Dennis                      9464193947 BO21   B02   J21   05-JUL-19 06.00.00.000000 AM
C22   Fred Jinngs                      9443381289 BO22   B02   J21   05-JUL-19 06.00.00.000000 AM

CUSTO NAME                           PHONE_NUMBER BOOKIN BUS_I JOURN DATE_TIME
----- ------------------------------ ------------ ------ ----- ----- --------------------------------
C23   Phineas Kevester                 9005315320 BO23   B02   J21   05-JUL-19 06.00.00.000000 AM
C24   Kallis Morgan                    9090973395 BO24   B02   J21   05-JUL-19 06.00.00.000000 AM
C25   Dave Williamson                  9121350680 BO25   B02   J21   05-JUL-19 06.00.00.000000 AM
C26   Hugh Caprio                      9911966936 BO26   B02   J21   05-JUL-19 06.00.00.000000 AM
C27   Gen Jokstar                      9234843930 BO27   B02   J21   05-JUL-19 06.00.00.000000 AM
C28   George Wheatley                  9434960411 BO28   B02   J21   05-JUL-19 06.00.00.000000 AM
C29   Gilliam Dennistar                9023453947 BO29   B02   J21   05-JUL-19 06.00.00.000000 AM
C30   Fredling Jingis                  9900380089 BO30   B02   J21   05-JUL-19 06.00.00.000000 AM
C31   Ferb Kevlos                      2265315320 BO31   B02   J21   05-JUL-19 06.00.00.000000 AM
C32   Morgan Ellis                     1298973395 BO32   B02   J21   05-JUL-19 06.00.00.000000 AM
C33   David Decker                     9982350680 BO33   B02   J21   05-JUL-19 06.00.00.000000 AM

CUSTO NAME                           PHONE_NUMBER BOOKIN BUS_I JOURN DATE_TIME
----- ------------------------------ ------------ ------ ----- ----- --------------------------------
C34   Jack Morris                      8809966936 BO34   B02   J21   05-JUL-19 06.00.00.000000 AM
C35   Genny Oliver                     9357843930 BO35   B02   J21   05-JUL-19 06.00.00.000000 AM
C36   Gerill Johnson                   4668960411 BO36   B02   J21   05-JUL-19 06.00.00.000000 AM
C37   Den Gillings                     7180193947 BO37   B02   J21   05-JUL-19 06.00.00.000000 AM
C38   Fredrick Willing                 6057381289 BO38   B02   J21   05-JUL-19 06.00.00.000000 AM

38 rows selected.
```

Query-10. List the drivers with more than 20 years of experience.

QUERY : SELECT DRIVER_ID,NAME,HIRE_DATE FROM DRIVER_DETAILS WHERE TRUNC(((SYSDATE-HIRE_DATE)/365),0)>=20;

```
DRIVE NAME                    HIRE_DATE
----- -------------------- ----------
D01   Karli Jones          15-MAR-01
D02   Sator Kallis         12-MAY-02
D06   Winston Kal          11-MAR-01
D07   Ben Foley            07-JAN-02
D10   Zach Jensen          27-MAY-01
D11   Clay Jensen          30-JAN-02
D12   John Davis           01-NOV-01

7 rows selected.
```

Query-11. List the Details of Customer who will have 3-stops along the journey.

QUERY : SELECT JOURNEY_ID,NAME, CUSTOMER_ID,BOOKING_ID, SOURCE,DESTINATION,BOOKING_DATE FROM (SELECT P.NAME,P.CUSTOMER_ID, C.BOOKING_ID,C.JOURNEY_ID,C.BOOKING_DATE FROM PASSENGER_DETAILS P JOIN CUSTOMER_BOOKING_DETAILS C ON P.CUSTOMER_ID=C.CUSTOMER_ID) NATURAL JOIN (SELECT J.SOURCE,J.DESTINATION, S.ROUTE_TOWN1,S.ROUTE_TOWN2, S.ROUTE_TOWN3,J.JOURNEY_ID FROM JOURNEY_DETAILS J JOIN SERVICE_ROUTE_DETAILS S ON J.ROUTE_ID=S.ROUTE_ID) WHERE (ROUTE_TOWN1 IS NOT NULL AND ROUTE_TOWN2 IS NOT NULL AND ROUTE_TOWN3 IS NOT NULL) AND BOOKING_DATE='01-JUL-19'

```
JOURN NAME                    CUSTO BOOKIN SOURCE        DESTINATION          BOOKING_D
----- -------------------- ----- ------ -------------- -------------------- ---------
J21   Hugh Jackman         C10   BO10   BHARUCH        VADODARA             01-JUL-19
J21   Genny Ollins         C11   BO11   BHARUCH        VADODARA             01-JUL-19
J21   George Weah          C12   BO12   BHARUCH        VADODARA             01-JUL-19
J21   Gill Dennis          C13   BO13   BHARUCH        VADODARA             01-JUL-19
J21   Fred Jinngs          C14   BO14   BHARUCH        VADODARA             01-JUL-19
J21   Phoeb Kevin          C15   BO15   BHARUCH        VADODARA             01-JUL-19
J21   Eion Morner          C16   BO16   BHARUCH        VADODARA             01-JUL-19
J21   Jack Morris          C34   BO34   BHARUCH        VADODARA             01-JUL-19

8 rows selected.
```

Query-12. List the Details of Customer going on a non-stop journey to their destination.

QUERY : SELECT JOURNEY_ID,NAME,CUSTOMER_ID,BOOKING_ID,SOURCE,DESTINATION FROM (SELECT P.NAME,P.CUSTOMER_ID,C.BOOKING_ID,C.JOURNEY_ID FROM PASSENGER_DETAILS P JOIN CUSTOMER_BOOKING_DETAILS C ON P.CUSTOMER_ID=C.CUSTOMER_ID) NATURAL JOIN (SELECT J.SOURCE,J.DESTINATION,S.ROUTE_TOWN1,S.ROUTE_TOWN2,S.ROUTE_TOWN3,J.JOURNEY_ID FROM JOURNEY_DETAILS J JOIN SERVICE_ROUTE_DETAILS S ON J.ROUTE_ID=S.ROUTE_ID) WHERE ROUTE_TOWN1 IS NULL AND ROUTE_TOWN2 IS NULL AND ROUTE_TOWN3 IS NULL;

```
JOURN NAME                          CUSTO BOOKIN SOURCE               DESTINATION
----- ------------------------------ ----- ------ -------------------- -------------------
J154  Jamie Vardy                    C01   B0115  BHARUCH              SURAT
J154  Adam Traore                    C02   B0116  BHARUCH              SURAT
J154  Sandi Malls                    C03   B0117  BHARUCH              SURAT
J154  Trent Arnold                   C04   B0118  BHARUCH              SURAT
J154  Mike Forgo                     C05   B0119  BHARUCH              SURAT
J154  Gabriel Foden                  C06   B0120  BHARUCH              SURAT
J154  Phil Kevin                     C07   B0121  BHARUCH              SURAT
J154  Eion Morgan                    C08   B0122  BHARUCH              SURAT
J154  David Willis                   C09   B0123  BHARUCH              SURAT
J154  Hugh Jackman                   C10   B0124  BHARUCH              SURAT
J154  Genny Ollins                   C11   B0125  BHARUCH              SURAT

JOURN NAME                          CUSTO BOOKIN SOURCE               DESTINATION
----- ------------------------------ ----- ------ -------------------- -------------------
J154  George Weah                    C12   B0126  BHARUCH              SURAT
J154  Gill Dennis                    C13   B0127  BHARUCH              SURAT
J154  Fred Jinngs                    C14   B0128  BHARUCH              SURAT
J154  Phoeb Kevin                    C15   B0129  BHARUCH              SURAT
J154  Eion Morner                    C16   B0130  BHARUCH              SURAT
J154  Rita Wallis                    C17   B0131  BHARUCH              SURAT
J154  Hugli Jackler                  C18   B0132  BHARUCH              SURAT
J154  Genny Ollins                   C19   B0133  BHARUCH              SURAT
J154  George Wowey                   C20   B0134  BHARUCH              SURAT
J154  Gill Dennis                    C21   B0135  BHARUCH              SURAT
J154  Fred Jinngs                    C22   B0136  BHARUCH              SURAT

JOURN NAME                          CUSTO BOOKIN SOURCE               DESTINATION
----- ------------------------------ ----- ------ -------------------- -------------------
J154  Phineas Kevester               C23   B0137  BHARUCH              SURAT
J154  Kallis Morgan                  C24   B0138  BHARUCH              SURAT
J154  Dave Williamson                C25   B0139  BHARUCH              SURAT
J154  Hugh Caprio                    C26   B0140  BHARUCH              SURAT
J154  Gen Jokstar                    C27   B0141  BHARUCH              SURAT
J154  George Wheatley                C28   B0142  BHARUCH              SURAT
J154  Gilliam Dennistar              C29   B0143  BHARUCH              SURAT
J154  Fredling Jingis                C30   B0144  BHARUCH              SURAT
J154  Ferb Kevlos                    C31   B0145  BHARUCH              SURAT
J154  Morgan Ellis                   C32   B0146  BHARUCH              SURAT
J154  David Decker                   C33   B0147  BHARUCH              SURAT

JOURN NAME                          CUSTO BOOKIN SOURCE               DESTINATION
----- ------------------------------ ----- ------ -------------------- -------------------
J154  Jack Morris                    C34   B0148  BHARUCH              SURAT
J154  Genny Oliver                   C35   B0149  BHARUCH              SURAT
J154  Gerill Johnson                 C36   B0150  BHARUCH              SURAT
J154  Den Gillings                   C37   B0151  BHARUCH              SURAT
J154  Fredrick Willing               C38   B0152  BHARUCH              SURAT

38 rows selected.
```

;Query-13. List the details of customer having booking date of 3rd July 2019.

QUERY : SELECT PASSENGER_DETAILS.CUSTOMER_ID,PASSENGER_DETAILS.NAME FROM PASSENGER_DETAILS INNER JOIN CUSTOMER_BOOKING_DETAILS ON CUSTOMER_BOOKING_DETAILS.CUSTOMER_ID=PASSENGER_DETAILS.CUSTOMER_ID WHERE CUSTOMER_BOOKING_DETAILS.BOOKING_DATE='03-JULY-2019' AND CUSTOMER_BOOKING_DETAILS.SEAT_NUM BETWEEN 11 AND 20 GROUP BY PASSENGER_DETAILS.CUSTOMER_ID,PASSENGER_DETAILS.NAME ORDER BY PASSENGER_DETAILS.CUSTOMER_ID,PASSENGER_DETAILS.NAME;

```
CUSTO NAME
----- ------------------
C07   Phil Kevin
C22   Fred Jinngs
C23   Phineas Kevester
C24   Kallis Morgan
C25   Dave Williamson
```

Query-14. List the Details of Ac- Sleeper/Seater Buses going from bharuch to Navsari between 5th and 6th JULY.

QUERY : SELECT * FROM BUS_DETAILS INNER JOIN JOURNEY_DETAILS ON JOURNEY_DETAILS.BUS_ID=BUS_DETAILS.BUS_ID WHERE AC_NONAC='ac' AND BUS_TYPE IN ('sleeper','seater') AND SOURCE IN ('BHARUCH') AND DESTINATION='NAVSARI'AND TTIME BETWEEN '05-JULY-2019 12:00:00 AM' AND '07-JULY-2019 12:00:00 AM';

```
BUS_I BUS_TYPE  JOURN SOURCE        DESTINATION        JDDATE
----- --------- ----- ------------  -----------------  ---------
B09   sleeper   J161  BHARUCH       NAVSARI            05-JUL-19
B09   sleeper   J162  BHARUCH       NAVSARI            05-JUL-19
B09   sleeper   J163  BHARUCH       NAVSARI            05-JUL-19
B09   sleeper   J164  BHARUCH       NAVSARI            06-JUL-19
B09   sleeper   J165  BHARUCH       NAVSARI            06-JUL-19
B09   sleeper   J166  BHARUCH       NAVSARI            06-JUL-19
B09   sleeper   J167  BHARUCH       NAVSARI            06-JUL-19
7 rows selected.
```

Query-15. List the all the Buses operated by BRTS and AMTS with their journey details except for the Buses coming from GOA.

QUERY : SELECT JOURNEY_DETAILS.SOURCE, JOURNEY_DETAILS.DESTINATION, SERVICE_ROUTE_DETAILS.OPERATOR , JOURNEY_DETAILS.JDDATE FROM SERVICE_ROUTE_DETAILS INNER JOIN JOURNEY_DETAILS ON JOURNEY_DETAILS.ROUTE_ID = SERVICE_ROUTE_DETAILS.ROUTE_ID WHERE OPERATOR IN ('BRTS','AMTS') AND NOT SOURCE='GOA' GROUP BY JOURNEY_DETAILS.SOURCE, JOURNEY_DETAILS.DESTINATION, SERVICE_ROUTE_DETAILS.OPERATOR,JOURNEY_DETAILS.JDDATE ORDER BY JOURNEY_DETAILS.SOURCE,JOURNEY_DETAILS.DESTINATION,JOURNEY_DETAILS.JDDATE;

```
SOURCE               DESTINATION          OPERATOR                       JDDATE
-------------------- -------------------- ------------------------------ ----------
BHARUCH              NAVSARI              BRTS                           05-JUL-19
BHARUCH              NAVSARI              BRTS                           06-JUL-19
BHARUCH              NAVSARI              BRTS                           07-JUL-19
BHARUCH              NAVSARI              BRTS                           08-JUL-19
BHARUCH              NAVSARI              BRTS                           09-JUL-19
BHARUCH              NAVSARI              BRTS                           10-JUL-19
BHARUCH              SURAT                BRTS                           05-JUL-19
BHARUCH              SURAT                BRTS                           06-JUL-19
BHARUCH              SURAT                BRTS                           07-JUL-19
BHARUCH              SURAT                BRTS                           08-JUL-19
BHARUCH              SURAT                BRTS                           09-JUL-19

SOURCE               DESTINATION          OPERATOR                       JDDATE
-------------------- -------------------- ------------------------------ ----------
BHARUCH              SURAT                BRTS                           10-JUL-19
BHARUCH              VADODARA             BRTS                           05-JUL-19
BHARUCH              VADODARA             BRTS                           06-JUL-19
BHARUCH              VADODARA             BRTS                           07-JUL-19
BHARUCH              VADODARA             BRTS                           08-JUL-19
BHARUCH              VADODARA             BRTS                           09-JUL-19
DELHI                AHMEDABAD            AMTS                           05-JUL-19
DELHI                AHMEDABAD            AMTS                           06-JUL-19
DELHI                AHMEDABAD            AMTS                           07-JUL-19
DELHI                AHMEDABAD            AMTS                           08-JUL-19
DELHI                AHMEDABAD            AMTS                           09-JUL-19

SOURCE               DESTINATION          OPERATOR                       JDDATE
-------------------- -------------------- ------------------------------ ----------
DELHI                AHMEDABAD            AMTS                           10-JUL-19
RAJKOT               AHMEDABAD            AMTS                           05-JUL-19
RAJKOT               AHMEDABAD            AMTS                           06-JUL-19
RAJKOT               AHMEDABAD            AMTS                           07-JUL-19
RAJKOT               AHMEDABAD            AMTS                           08-JUL-19
RAJKOT               AHMEDABAD            AMTS                           09-JUL-19
SURAT                AHMEDABAD            AMTS                           05-JUL-19
SURAT                AHMEDABAD            AMTS                           06-JUL-19
SURAT                AHMEDABAD            AMTS                           07-JUL-19
SURAT                AHMEDABAD            AMTS                           08-JUL-19
SURAT                AHMEDABAD            AMTS                           09-JUL-19

SOURCE               DESTINATION          OPERATOR                       JDDATE
-------------------- -------------------- ------------------------------ ----------
SURAT                AHMEDABAD            AMTS                           10-JUL-19
VADODARA             AHMEDABAD            BRTS                           05-JUL-19
VADODARA             AHMEDABAD            BRTS                           06-JUL-19
VADODARA             AHMEDABAD            BRTS                           07-JUL-19
VADODARA             AHMEDABAD            BRTS                           08-JUL-19
VADODARA             AHMEDABAD            BRTS                           09-JUL-19

39 rows selected.
```

Query-16. List the Details of Drivers with rating more than or equal to 2 and their managers have only 4 sub-workers

QUERY : SELECT DRIVER_DETAILS.DRIVER_ID, DRIVER_DETAILS.NAME, DRIVER_DETAILS.RATING, MANAGER_DETAILS.MANAGER_ID, MANAGER_DETAILS.NAME FROM MANAGER_DETAILS INNER JOIN DRIVER_DETAILS ON MANAGER_DETAILS.MANAGER_ID=DRIVER_DETAILS.MANAGER_ID WHERE DRIVER_DETAILS.RATING>=3 AND MANAGER_DETAILS.SUB_WORKERS=4;

```
DRIVE NAME                    RATING MANAG NAME
----- -------------------- ---------- ----- --------------------
D01   Karli Jones                   4 M01   Harry Jones
D02   Sator Kallis                  4 M01   Harry Jones
D03   Bellis Hay                    4 M01   Harry Jones
D04   Will Collins                  3 M01   Harry Jones
D05   Harry Kares                   3 M02   Jen Kallis
D06   Winston Kal                   4 M02   Jen Kallis
D07   Ben Foley                     4 M02   Jen Kallis
D08   Ani Willis                    4 M02   Jen Kallis
D09   Justin Achola                 4 M03   Ben Haywire
D10   Zach Jensen                   4 M03   Ben Haywire
D11   Clay Jensen                   4 M03   Ben Haywire

DRIVE NAME                    RATING MANAG NAME
----- -------------------- ---------- ----- --------------------
D12   John Davis                    4 M03   Ben Haywire

12 rows selected.
```

Query-17. List the details of all the passengers who are more than 60 years in age in a ordered form.

QUERY : SELECT CUSTOMER_BOOKING_DETAILS.TRAVEL_DATE, CUSTOMER_BOOKING_DETAILS.BOOKING_ID, PASSENGER_DETAILS.CUSTOMER_ID, PASSENGER_DETAILS.NAME, PASSENGER_DETAILS.PHONE_NUMBER, CUSTOMER_BOOKING_DETAILS.JOURNEY_ID FROM PASSENGER_DETAILS INNER JOIN CUSTOMER_BOOKING_DETAILS ON CUSTOMER_BOOKING_DETAILS.CUSTOMER_ID =PASSENGER_DETAILS.CUSTOMER_ID WHERE PASSENGER_DETAILS.AGE>=60 ORDER BY CUSTOMER_ID,NAME,TRAVEL_DATE;

```
TRAVEL_DA BOOKIN CUSTO NAME                    PHONE_NUMBER JOURN
--------- ------ ----- -------------------- ------------ -----
05-JUL-19 BO31   C31   Ferb Kevlos            2265315320 J21
06-JUL-19 BO69   C31   Ferb Kevlos            2265315320 J08
07-JUL-19 BO107  C31   Ferb Kevlos            2265315320 J91
08-JUL-19 BO145  C31   Ferb Kevlos            2265315320 J154
05-JUL-19 BO32   C32   Morgan Ellis           1298973395 J21
06-JUL-19 BO70   C32   Morgan Ellis           1298973395 J08
07-JUL-19 BO108  C32   Morgan Ellis           1298973395 J91
08-JUL-19 BO146  C32   Morgan Ellis           1298973395 J154

8 rows selected.
```

Query-18. Details of drivers who are driving bus between 9:30 AM and 12:00 AM on 5th July 2019 having salary >= 15000.

QUERY : SELECT DRIVER_ID,NAME,BUS_ID, J.JOURNEY_ID,J.SOURCE, J.DESTINATION,J.JDDATE,J.TTIME FROM DRIVER_DETAILS D INNER JOIN JOURNEY_DETAILS J ON D.ASSIGNED_BUS_ID = J.BUS_ID WHERE J.TTIME BETWEEN '05-JULY-2019 12:00:00 AM' AND '05-JULY-2019 09:30:00 AM' AND D.SALARY>=15000;

```
DRIVE NAME          BUS_I JOURN SOURCE          DESTINATION          JDDATE    TTIME
----- ------------- ----- ----- --------------- -------------------- --------- ----------------------------
D01   Karli Jones   B01   J01   VADODARA        AHMEDABAD            05-JUL-19 05-JUL-19 06.30.00.000000 AM
D02   Sator Kallis  B03   J41   MUMBAI          PUNE                 05-JUL-19 05-JUL-19 06.30.00.000000 AM
D03   Bellis Hay    B02   J21   BHARUCH         VADODARA             05-JUL-19 05-JUL-19 06.00.00.000000 AM
D05   Harry Kares   B05   J81   SURAT           AHMEDABAD            05-JUL-19 05-JUL-19 06.30.00.000000 AM
D06   Winston Kal   B06   J101  RAJKOT          AHMEDABAD            05-JUL-19 05-JUL-19 06.00.00.000000 AM
D08   Ani Willis    B08   J141  BHARUCH         SURAT                05-JUL-19 05-JUL-19 06.30.00.000000 AM
D10   Zach Jensen   B10   J181  DELHI           SHIMLA               05-JUL-19 05-JUL-19 06.30.00.000000 AM
D11   Clay Jensen   B11   J201  DELHI           UDAIPUR              05-JUL-19 05-JUL-19 06.30.00.000000 AM
D12   John Davis    B12   J221  GOA             AHMEDABAD            05-JUL-19 05-JUL-19 06.30.00.000000 AM
D13   Bryce Williams B01  J01   VADODARA        AHMEDABAD            05-JUL-19 05-JUL-19 06.30.00.000000 AM
D14   Joey Baker    B02   J21   BHARUCH         VADODARA             05-JUL-19 05-JUL-19 06.00.00.000000 AM

DRIVE NAME          BUS_I JOURN SOURCE          DESTINATION          JDDATE    TTIME
----- ------------- ----- ----- --------------- -------------------- --------- ----------------------------
D15   Jays Walker   B03   J41   MUMBAI          PUNE                 05-JUL-19 05-JUL-19 06.30.00.000000 AM
D16   Munis Waller  B04   J61   JAIPUR          UDAIPUR              05-JUL-19 05-JUL-19 06.00.00.000000 AM

13 rows selected.
```

Query-19. List the Journey details and basic Details of all the Sleeper-buses.

QUERY : SELECT K.BUS_TYPE,K.AC_NONAC,K.SOURCE,K.DESTINATION FROM (SELECT * FROM BUS_DETAILS INNER JOIN JOURNEY_DETAILS ON JOURNEY_DETAILS.BUS_ID=BUS_DETAILS.BUS_ID) K INNER JOIN SERVICE_ROUTE_DETAILS ON K.ROUTE_ID = SERVICE_ROUTE_DETAILS.ROUTE_ID WHERE K.BUS_TYPE='sleeper' AND K.AC_NONAC = 'ac' AND (ROUTE_TOWN1 IS NULL OR ROUTE_TOWN2 IS NULL OR ROUTE_TOWN3 IS NULL) GROUP BY K.BUS_TYPE,K.AC_NONAC,K.SOURCE,K.DESTINATION;

```
BUS_TYPE  AC_NON SOURCE              DESTINATION
--------- ------ ------------------- -------------------
sleeper   ac     BHARUCH             NAVSARI
sleeper   ac     BHARUCH             SURAT
sleeper   ac     DELHI               AHMEDABAD
```

Query-20. List the Details of the passengers who had done two bookings on the same day.

QUERY : SELECT PASSENGER_DETAILS.CUSTOMER_ID, PASSENGER_DETAILS.NAME, BOOKING_DATE FROM PASSENGER_DETAILS INNER JOIN (SELECT J.CUSTOMER_ID,BOOKING_ID,TRAVEL_DATE,J.BOOKING_DATE FROM CUSTOMER_BOOKING_DETAILS INNER JOIN (SELECT CUSTOMER_ID, BOOKING_DATE FROM (SELECT CUSTOMER_ID,BOOKING_DATE,COUNT(BOOKING_DATE)"NUM" FROM CUSTOMER_BOOKING_DETAILS GROUP BY BOOKING_DATE,CUSTOMER_ID ORDER BY CUSTOMER_ID) WHERE NUM=2 GROUP BY CUSTOMER_ID,BOOKING_DATE ORDER BY CUSTOMER_ID) J ON CUSTOMER_BOOKING_DETAILS.CUSTOMER_ID=J.CUSTOMER_ID AND CUSTOMER_BOOKING_DETAILS.BOOKING_DATE = J.BOOKING_DATE ORDER BY CUSTOMER_ID,TRAVEL_DATE) M ON M.CUSTOMER_ID= PASSENGER_DETAILS.CUSTOMER_ID GROUP BY PASSENGER_DETAILS.CUSTOMER_ID, PASSENGER_DETAILS.NAME,BOOKING_DATE ORDER BY BOOKING_DATE, PASSENGER_DETAILS.CUSTOMER_ID,PASSENGER_DETAILS.NAME;

```
CUSTO NAME                                         BOOKING_D
----- ------------------------------------------   ---------
C11   Genny Ollins                                 01-JUL-19
C14   Fred Jinngs                                  01-JUL-19
C16   Eion Morner                                  01-JUL-19
C25   Dave Williamson                              01-JUL-19
C20   George Wowey                                 02-JUL-19
C07   Phil Kevin                                   03-JUL-19
C09   David Willis                                 03-JUL-19
C17   Rita Wallis                                  03-JUL-19
C22   Fred Jinngs                                  03-JUL-19
C23   Phineas Kevester                             03-JUL-19
C25   Dave Williamson                              03-JUL-19

CUSTO NAME                                         BOOKING_D
----- ------------------------------------------   ---------
C36   Gerill Johnson                               03-JUL-19
C37   Den Gillings                                 03-JUL-19
C30   Fredling Jingis                              04-JUL-19
C33   David Decker                                 04-JUL-19
C35   Genny Oliver                                 04-JUL-19
C36   Gerill Johnson                               04-JUL-19
C02   Adam Traore                                  05-JUL-19
C03   Sandi Malls                                  05-JUL-19
C15   Phoeb Kevin                                  05-JUL-19
C29   Gilliam Dennistar                            05-JUL-19

21 rows selected.
```