FIT9132 2024 S2 Assignment 2

MARKING

Task 1 DDL

Task 2 INSERT

Task 3 DML

Task 4 Modifications

Task 5 SQL Queries

Task 6 MongoDB

TASK 1 DDL TASK 2 Insert Marking

```
SQL> -- Running pat_initialSchemaInsert.sql
SOL> set echo off
SQL> ----- Task 1 Create Tables -----
SOL> @T1-pat-schema.sql
SQL> --*****PLEASE ENTER YOUR DETAILS BELOW*****
SQL> --T1-pat-schema.sql
SOL>
SOL> --Student ID:35009411
SQL> --Student Name: Shuyang Yan
SOL>
SOL>
SQL> /* Comments for your marker:
SQL>
SOL>
SQL>
SOL>
SQL>*/
SOL>
SQL> -- Task 1 Add Create table statements for the Missing TABLES below.
SQL> -- Ensure all column comments, and constraints (other than FK's) are included.
SQL> -- FK constraints are to be added at the end of this script
SOL>
SQL> -- OFFICIAL
SQL> CREATE TABLE OFFICIAL (
       OFF_ID NUMBER(4) NOT NULL,
 3
       OFF GIVEN VARCHAR(30)
       OFF_FAMILY VARCHAR(30)
       CR_IOC_CODE CHAR(3) NOT NULL,
       OFF CDM NUMBER(4)
 7);
Table OFFICIAL created.
SOL>
SQL> COMMENT ON COLUMN OFFICIAL.OFF ID IS
        'Identifier for an official';
Comment created.
SOL>
SQL> COMMENT ON COLUMN OFFICIAL.OFF_GIVEN IS
       'Given name for the official';
Comment created.
SQL> COMMENT ON COLUMN OFFICIAL.OFF_FAMILY IS
       'Family name for the official';
Comment created.
SOL>
SQL> COMMENT ON COLUMN OFFICIAL.CR_IOC_CODE IS
        'IOC country code for the official';
```

```
Comment created.
SOL>
SQL> COMMENT ON COLUMN OFFICIAL.OFF_CDM IS
        'Identifier for Chef De Mission for the official';
Comment created.
SOL>
SQL> ALTER TABLE OFFICIAL
 2
        ADD CONSTRAINT OFFICIAL_PK PRIMARY KEY (
 3
           OFF_ID
        );
Table OFFICIAL altered.
SQL>
SQL> -- VEHICLE
SQL> CREATE TABLE VEHICLE (
        VEH_VIN CHAR(17) NOT NULL,
  3
        VEH_REGO CHAR(7) NOT NULL,
        VEH_YEAR DATE NOT NULL,
  5
        VEH_CURR_ODO NUMBER(6) NOT NULL,
        VEH_NOPASSENGERS NUMBER(2) NOT NULL,
        VM_MODEL_ID NUMBER(4) NOT NULL
  8);
Table VEHICLE created.
SOL>
SQL> COMMENT ON COLUMN VEHICLE.VEH_VIN IS
 2 'Identifier for vehicle';
Comment created.
SQL>
SQL> COMMENT ON COLUMN VEHICLE.VEH_REGO IS
        'Registration plate of vehicle';
Comment created.
SQL>
SQL> COMMENT ON COLUMN VEHICLE.VEH_YEAR IS
        'Year of manufacture of vehicle';
Comment created.
SQL>
SQL> COMMENT ON COLUMN VEHICLE.VEH_CURR_ODO IS
        'Current odometer reading of vehicle';
Comment created.
SOL>
SQL> COMMENT ON COLUMN VEHICLE.VEH_NOPASSENGERS IS
         'Number of passengers vehicle can seat';
```

```
Comment created.
SQL>
SQL> COMMENT ON COLUMN VEHICLE.VM_MODEL_ID IS
        'Identifier for vehicle model';
Comment created.
SQL>
SOL> ALTER TABLE VEHICLE
        ADD CONSTRAINT VEHICLE_PK PRIMARY KEY (
 3
             VEH_VIN
        );
Table VEHICLE altered.
SOL>
SOL> -- TRIP
SQL> CREATE TABLE TRIP (
        TRIP_ID NUMBER(4) NOT NULL,
        TRIP_NOPASSENGERS NUMBER(2) NOT NULL,
         TRIP_INT_PICKUPDT DATE NOT NULL,
        TRIP_ACT_PICKUPDT DATE,
        TRIP_INT_DROPOFFDT DATE NOT NULL,
  6
        TRIP_ACT_DROPOFFDT DATE,
  8
        VEH_VIN CHAR(17) NOT NULL,
 9
        DRIVER_ID NUMBER(4) NOT NULL,
10
        PICKUP_LOCN_ID NUMBER(3) NOT NULL,
11
        DROPOFF_LOCN_ID NUMBER(3) NOT NULL,
12
        LANG_ISO_CODE CHAR(2) NOT NULL,
13
        OFF_ID NUMBER(4) NOT NULL
14);
Table TRIP created.
SQL>
SQL> COMMENT ON COLUMN TRIP.TRIP_ID IS
 2
         'Identifier for a trip';
Comment created.
SOL>
SQL> COMMENT ON COLUMN TRIP.TRIP_NOPASSENGERS IS
        'Number of passengers for the trip';
Comment created.
SOL>
SOL> COMMENT ON COLUMN TRIP. TRIP INT PICKUPDT IS
         'Intended pickup date and time for the trip';
Comment created.
SOL>
SQL> COMMENT ON COLUMN TRIP.TRIP_ACT_PICKUPDT IS
```

```
2
        'Actual pickup date and time for the trip';
Comment created.
SQL> COMMENT ON COLUMN TRIP.TRIP_INT_DROPOFFDT IS
        'Intended drop-off date and time for the trip';
Comment created.
SOL>
SQL> COMMENT ON COLUMN TRIP.TRIP_ACT_DROPOFFDT IS
        'Actual drop-off date and time for the trip';
Comment created.
SOL>
SQL > COMMENT ON COLUMN TRIP. VEH_VIN IS
 2 'Identifier for a vehicle';
Comment created.
SQL> COMMENT ON COLUMN TRIP.DRIVER_ID IS
        'Identifier for a driver';
Comment created.
SOL>
SQL> COMMENT ON COLUMN TRIP.PICKUP_LOCN_ID IS
       'Identifier for the pick-up location';
Comment created.
SOL>
SQL> COMMENT ON COLUMN TRIP.DROPOFF_LOCN_ID IS
        'Identifier for the drop-off location';
Comment created.
SOL>
SQL> COMMENT ON COLUMN TRIP.LANG_ISO_CODE IS
        'ISO639-1 two-character language codes';
Comment created.
SQL> COMMENT ON COLUMN TRIP.OFF_ID IS
        'Identifier for an officia';
Comment created.
SOL>
SQL> ALTER TABLE TRIP
            CONSTRAINT TRIP_PK PRIMARY KEY ( TRIP_ID ),
```

```
CONSTRAINT TRIP_UO UNIQUE ( TRIP_INT_PICKUPDT, TRIP_INT_DROPOFFDT, VEH VIN, DRIVER ID
        );
Table TRIP altered.
SOL>
SQL> -- Add all missing FK Constraints below here
SOL> ALTER TABLE OFFICIAL
  3
            CONSTRAINT COUNTRY REGION OFFICIAL FK FOREIGN KEY ( CR IOC CODE ) REFERENCES COUNTRY REGION ( CR IOC CODE ),
            CONSTRAINT OFFICIAL OFFICIAL FK FOREIGN KEY ( OFF CDM ) REFERENCES OFFICIAL ( OFF ID )
Table OFFICIAL altered.
SOL>
SOL> ALTER TABLE VEHICLE
 2
        ADD CONSTRAINT VEHICLE_MODEL_VEHICLE_FK FOREIGN KEY (
 3
            VM MODEL ID
  4
  5
            REFERENCES VEHICLE_MODEL (
                VM_MODEL_ID
            );
Table VEHICLE altered.
SQL>
SQL> ALTER TABLE TRIP
  2
            CONSTRAINT VEHICLE TRIP FK FOREIGN KEY ( VEH_VIN ) REFERENCES VEHICLE ( VEH_VIN ),
  3
            CONSTRAINT DRIVER TRIP FK FOREIGN KEY ( DRIVER ID ) REFERENCES DRIVER ( DRIVER ID ),
            CONSTRAINT LOCATION_TRIP_PICK_FK FOREIGN KEY ( PICKUP_LOCN_ID ) REFERENCES LOCATION ( LOCN_ID ),
            CONSTRAINT LOCATION TRIP DROP FK FOREIGN KEY ( DROPOFF_LOCN_ID ) REFERENCES LOCATION ( LOCN_ID ),
  6
            CONSTRAINT LANGUAGE_TRIP_FK FOREIGN KEY ( LANG_ISO_CODE ) REFERENCES LANGUAGE ( LANG_ISO_CODE ),
  8
            CONSTRAINT OFFICIAL TRIP FK FOREIGN KEY ( OFF ID ) REFERENCES OFFICIAL ( OFF ID )
        );
Table TRIP altered.
SOL> ----- OFFICIAL -----
SQL> describe OFFICIAL
Name
              Null?
                          Type
OFF ID
              NOT NULL
                          NUMBER (4)
OFF_GIVEN
                          VARCHAR2(30)
OFF FAMILY
                          VARCHAR2(30)
CR IOC CODE
              NOT NULL
                          CHAR(3)
OFF CDM
                          NUMBER (4)
SOL> ----- VEHICLE
SOL> describe VEHICLE
Name
                   Null?
                               Type
VEH VIN
                   NOT NULL
                               CHAR(17)
```

TRIP_NOPASSENGERS NOT NULL NUMBER TRIP_INT_PICKUPDT NOT NULL DATE TRIP_ACT_PICKUPDT DATE TRIP_INT_DROPOFFDT NOT NULL DATE TRIP_ACT_DROPOFFDT NOT NULL CHAIN TRIP_ACT_DROPOFFDT NOT NULL CHAIN DRIVER_ID NOT NULL NUMBER DROPOFF_LOCN_ID NOT NULL NUMBER DROPOFF_LOCN_ID NOT NULL NUMBER DROPOFF_LOCN_ID NOT NULL NUMBER DROPOFF_LOCN_ID NOT NULL CHAIN OFF_ID NOT NULL NUMBER DROPOFF_LOCN_ID NOT NULL CHAIN OFF_ID NOT NULL NUMBER DROPOFF_LOCN_ID NOT NULL NUMBER DROPOFF_LOCN_ID NOT NULL CHAIN OFF_ID NOT NULL NUMBER DROPOFF_LOCN_ID NUMBER DROPOFF_LOCN_ID NUMBER DROPOFF_LOCN_ID NUMBER DROPOFF_LOCN_ID NUMBER DROPOFF_LOCN_ID NUMBER DROPOFF_LOCN_ID N	R(4)	
CONSTRAINT_NAME OFFICIAL_PK COUNTRY_REGION_OFFICIAL_FK OFFICIAL_OFFICIAL_FK Foreign Foreign	BER(4) BER(2) E E E E R(17) BER(4) BER(3) BER(3) BER(3) R(2) BER(4)	
COUNTRY_REGION_OFFICIAL_FK Foreign OFFICIAL_OFFICIAL_FK Foreign	INT_TYPE TABLE_NAME	SEARCH_CONDITION
SYS_C008881306 TRIP_UQ TRIP_PK VEHICLE_TRIP_FK OFFICIAL_TRIP_FK OFFICIAL_TRIP_FK Foreign LOCATION_TRIP_DROP_FK LANGUAGE_TRIP_FK Foreign LANGUAGE_TRIP_FK Foreign DRIVER_TRIP_FK SYS_C008881325 SYS_C008881324 SYS_C008881323 Check SYS_C008881323 Check SYS_C008881321 Check SYS_C008881321 Check SYS_C008881317 Check SYS_C008881319 Check SYS_C008881319 Check SYS_C008881310 Check SYS_C008881311 Check SYS_C008881311 Check Check SYS_C008881310 Check SYS_C008881311 Check Check Oreign SYS_C008881312 Check	Key OFFICIAL Key OFFICIAL OFFICIAL OFFICIAL OFFICIAL TRIP Key TRIP Key TRIP Key TRIP Key TRIP Key TRIP Key TRIP TRIP TRIP TRIP TRIP TRIP TRIP TRIP	"CR_IOC_CODE" IS NOT NULL "OFF_ID" IS NOT NULL "LANG_ISO_CODE" IS NOT NULL "DROPOFF_LOCN_ID" IS NOT NULL "PICKUP_LOCN_ID" IS NOT NULL "DRIVER_ID" IS NOT NULL "TRIP_NOPASSENGERS" IS NOT NULL "TRIP_INT_PICKUPDT" IS NOT NULL "TRIP_INT_DROPOFFDT" IS NOT NULL "TRIP_INT_DROPOFFDT" IS NOT NULL "VEH_VIN" IS NOT NULL "VEH_VIN" IS NOT NULL "VEH_CURR_ODO" IS NOT NULL

```
SYS_C008881309
                          Check
                                            VEHICLE
                                                        "VEH_VIN" IS NOT NULL
SYS_C008881310
                                                        "VEH_REGO" IS NOT NULL
                           Check
                                            VEHICLE
SYS_C008881314
                          Check
                                            VEHICLE
                                                        "VM_MODEL_ID" IS NOT NULL
31 rows selected.
SQL> ----- Task 2 Load Student Data -----
SQL> @T2-pat-insert.sql
SQL> /*****PLEASE ENTER YOUR DETAILS BELOW*****/
SQL> --T2-pat-insert.sql
SOL>
SQL> --Student ID:35009411
SQL> --Student Name: Shuyang Yan
SQL>
SQL> /* Comments for your marker:
SQL>
SQL>
SQL>
SQL>
SQL>*/
SQL>
SQL> -----
SQL> --INSERT INTO official
SQL> -----
SQL> INSERT INTO OFFICIAL VALUES (
 2
 3
       'Heather',
       'Pineda',
 5
       'FRA',
 6
       NULL
 7);
1 row inserted.
SQL>
SQL> INSERT INTO OFFICIAL VALUES (
        'Carol',
 3
        'Rich',
 5
        'USA',
 6
       NULL
 7
    );
1 row inserted.
SOL>
SQL> INSERT INTO OFFICIAL VALUES (
       3,
 2
 3
        'Sebastian',
        'Farmer',
        'USA',
 7
    );
1 row inserted.
```

```
SQL>
Sar{Q}L> INSERT INTO OFFICIAL VALUES (
         'Blanca',
  3
         'Mckenzie',
  5
         'USA',
  6
  7
    );
1 row inserted.
SQL> INSERT INTO OFFICIAL VALUES (
  2
  3
         'Huey',
'Trujillo',
  5
         'ESP',
  6
         NULL
    );
1 row inserted.
SQL> INSERT INTO OFFICIAL VALUES (
  2
  3
         'Courtney',
         'Madden',
  5
         'POR',
         NULL
    );
1 row inserted.
SQL>
SQL> INSERT INTO OFFICIAL VALUES (
 2
         'Cecelia',
         'Chavez',
         'AUS',
  6
         NULL
    );
1 row inserted.
SQL>
SQL> INSERT INTO OFFICIAL VALUES (
         8,
         'Arlen',
  3
         'Hays',
         'AUŜ',
  7);
1 row inserted.
SQL>
```

```
SQL> INSERT INTO OFFICIAL VALUES (
 3
        'Annmarie',
        'Randall',
 5
        'AUS',
 6
    );
1 row inserted.
SQL> INSERT INTO OFFICIAL VALUES (
 2
        10,
 3
        'Krystal',
        'Goodman',
        'GER',
 6
        NULL
    );
1 row inserted.
SQL>
SOL> -----
SQL> --INSERT INTO vehicle
SQL> -----
SQL> INSERT INTO VEHICLE VALUES (
        'qwhgjnsutvdjnfru1',
 3
        'ĀAAĀĀA1',
       TO_DATE('2022', 'yyyy'),
        11111,
 6
        20,
        1
 8
    );
1 row inserted.
SQL> INSERT INTO VEHICLE VALUES (
 ~2
        'ashgntjfugnvdhfl2',
        'BBBBBB2',
        TO_DATE('2023', 'yyyy'),
 5
        22222,
        20,
        1
   );
1 row inserted.
SQL>
SQL> INSERT INTO VEHICLE VALUES (
        'nsjfwhdbfuydbwsh3',
 3
        'CCCCCC3',
        TO_DATE('2022', 'yyyy'),
        33333,
        60,
        2
```

```
8);
1 row inserted.
SOL>
SQL> INSERT INTO VEHICLE VALUES (
 2
         'DDDDDDD4',
         TO_DATE('2021', 'yyyyy'),
  5
         33333,
         60,
  8
    );
1 row inserted.
SOL>
SQL> INSERT INTO VEHICLE VALUES (
         'cccccccccccccc5',
  3
         'EEEEEE5',
         TO_DATE('2023', 'yyyy'),
         11\overline{1}11,
         60,
         3
  8
    );
1 row inserted.
SOL>
SQL> INSERT INTO VEHICLE VALUES (
         'ddddddddddddddd',
  3
         'FFFFFF6',
        TO_DATE('2022', 'yyyy'),
         22\overline{2}22,
  5
  6
         60,
         3
  8
1 row inserted.
SQL>
SQL> INSERT INTO VEHICLE VALUES (
         'eeeeeeeeeeeeee7',
         'GGGGGG7',
        TO_DATE('2022', 'yyyy'),
         11\overline{1}11,
         40,
         4
  8);
1 row inserted.
SQL> INSERT INTO VEHICLE VALUES (
  2
         'fffffffffffffff,,
         'НННННН8',
```

```
TO_DATE('2023', 'yyyy'),
         11111,
  6
         40,
         4
  8);
1 row inserted.
SQL> INSERT INTO VEHICLE VALUES (
 2
         'gggggggggggggggg',
         TO_DATE('2024', 'yyyy'),
         11111,
         40,
         5
  8);
1 row inserted.
SQL>
SQL> INSERT INTO VEHICLE VALUES (
         'hhhhhhhhhhhhhhhhh10',
 3
         'JJJJJ10',
         TO_DATE('2024', 'yyyy'),
         11111,
         40,
         5
  8);
1 row inserted.
SQL>
SQL> -----
SQL> --INSERT INTO trip
SQL> -----
SQL> INSERT INTO TRIP VALUES (
 2
         1,
  3
         18,
         TO_DATE('21/07/2024 09:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('21/07/2024 09:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('21/07/2024 10:00', 'dd/mm/yyyy hh24:mi'),
  5
         TO_DATE('21/07/2024 10:00', 'dd/mm/yyyy hh24:mi'),
         'qwhgjnsutvdjnfru1',
         2001,
 10
         101,
 11
         102,
 12
         'fr',
13
         1
14);
1 row inserted.
SQL>
SQL> INSERT INTO TRIP VALUES (
         2,
```

```
TO_DATE('21/07/2024 13:00', 'dd/mm/yyyy hh24:mi'),
            TO_DATE('21/07/2024 13:00', 'dd/mm/yyyy hh24:mi'),
TO_DATE('21/07/2024 14:30', 'dd/mm/yyyy hh24:mi'),
TO_DATE('21/07/2024 14:30', 'dd/mm/yyyy hh24:mi'),
   6
   8
             'qwhgjnsutvdjnfru1',
  9
             2002,
 10
             111,
 11
            113,
 12
             'fr',
 13
 14
      );
1 row inserted.
SQL>
SQL> INSERT INTO TRIP VALUES (
  2
             20,
  3
            TO_DATE('21/07/2024 09:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('21/07/2024 09:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('21/07/2024 10:00', 'dd/mm/yyyy hh24:mi'),
   4
   5
             TO_DATE('21/07/2024 10:00', 'dd/mm/yyyy hh24:mi'),
   8
             'ashgntjfugnvdhfl2',
  9
             2003,
 10
            101,
 11
            102,
 12
             'en',
 13
             2
 14);
1 row inserted.
SOL>
SQL> INSERT INTO TRIP VALUES (
  2
  3
             TO_DATE('24/07/2024 12:00', 'dd/mm/yyyy hh24:mi'),
            TO_DATE('24/07/2024 12:30', 'dd/mm/yyyy hh24:mi'),
TO_DATE('24/07/2024 13:00', 'dd/mm/yyyy hh24:mi'),
TO_DATE('24/07/2024 13:00', 'dd/mm/yyyy hh24:mi'),
   5
   8
             'ashqntjfuqnvdhfl2',
  9
             2004,
 10
             109,
 11
            115,
 12
             'en'
 13
 14
      );
1 row inserted.
SQL> INSERT INTO TRIP VALUES (
             5,
  2
  3
             TO_DATE('26/07/2024 12:00', 'dd/mm/yyyy hh24:mi'),
```

```
TO_DATE('26/07/2024 12:00', 'dd/mm/yyyy hh24:mi'),
            TO_DATE('26/07/2024 13:00', 'dd/mm/yyyy hh24:mi'),
            TO_DATE('26/07/2024 13:10', 'dd/mm/yyyy hh24:mi'),
  8
            'nsjfwhdbfuydbwsh3',
  9
            2006,
 10
            104,
 11
            106,
 12
            'en',
 13
            3
 14);
1 row inserted.
SQL>
SQL> INSERT INTO TRIP VALUES (
  2
  3
            44,
            TO_DATE('27/07/2024 11:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('27/07/2024 11:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('27/07/2024 12:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('27/07/2024 12:00', 'dd/mm/yyyy hh24:mi'),
  5
  6
  8
            'nsjfwhdbfuydbwsh3',
  9
            2006,
 10
            104,
 11
            106.
 12
            'en',
 13
            4
 14
      );
1 row inserted.
SQL>
SQL> INSERT INTO TRIP VALUES (
  2
            7,
  3
  4
            TO_DATE('30/07/2024 11:30', 'dd/mm/yyyy hh24:mi'),
            TO_DATE('30/07/2024 11:30', 'dd/mm/yyyy hh24:mi'),
            TO_DATE('30/07/2024 12:30', 'dd/mm/yyyy hh24:mi'), TO_DATE('30/07/2024 12:30', 'dd/mm/yyyy hh24:mi'),
  8
            9
            2007,
 10
            114,
 11
            101,
 12
            'en',
 13
            4
 14
      );
1 row inserted.
SOL>
SQL> INSERT INTO TRIP VALUES (
  2
  3
            TO_DATE('29/07/2024 11:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('29/07/2024 11:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('29/07/2024 12:30', 'dd/mm/yyyy hh24:mi'),
  5
```

```
TO_DATE('29/07/2024 13:00', 'dd/mm/yyyy hh24:mi'),
  8
           9
           2005,
 10
           108,
 11
           106,
 12
           'es',
 13
           5
 14);
1 row inserted.
SQL> INSERT INTO TRIP VALUES (
  2
  3
           56,
           TO_DATE('28/07/2024 10:30', 'dd/mm/yyyy hh24:mi'),
           TO_DATE('28/07/2024 10:30', 'dd/mm/yyyy hh24:mi'), TO_DATE('28/07/2024 11:30', 'dd/mm/yyyy hh24:mi'), TO_DATE('28/07/2024 11:30', 'dd/mm/yyyy hh24:mi'),
  6
  8
           9
           2005,
 10
           104,
 11
           117,
 12
           'es',
 13
           5
14 );
1 row inserted.
SOL>
SQL> INSERT INTO TRIP VALUES (
           10,
  3
           TO_DATE('25/07/2024 14:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('25/07/2024 14:00', 'dd/mm/yyyy hh24:mi'),
  5
           TO_DATE('25/07/2024 15:00', 'dd/mm/yyyy hh24:mi'),
           TO_DATE('25/07/2024 15:30', 'dd/mm/yyyy hh24:mi'),
  8
           'cccccccccccccc5',
  9
           2004,
 10
           102,
 11
           103,
 12
           'pt',
 13
     );
1 row inserted.
SQL>
SQL> INSERT INTO TRIP VALUES (
  2
           11,
           TO_DATE('25/07/2024 10:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('25/07/2024 10:15', 'dd/mm/yyyy hh24:mi'), TO_DATE('25/07/2024 12:00', 'dd/mm/yyyy hh24:mi'),
           TO_DATE('25/07/2024 12:00', 'dd/mm/yyyy hh24:mi'),
           'cccccccccccccc5',
```

```
9
           2011,
 10
           105,
 11
           102,
 12
           'en',
 13
 14
     );
1 row inserted.
SQL>
SQL> INSERT INTO TRIP VALUES (
           12,
  3
           48,
           TO_DATE('26/07/2024 11:00', 'dd/mm/yyyy hh24:mi'),
           TO_DATE('26/07/2024 11:00', 'dd/mm/yyyy hh24:mi'),
           TO_DATE('26/07/2024 12:30', 'dd/mm/yyyy hh24:mi'),
           TO_DATE('26/07/2024 12:30', 'dd/mm/yyyy hh24:mi'),
  8
           'accadacadacadas',
  9
           2013,
 10
           106,
 11
           112.
 12
           'en',
 13
 14 );
1 row inserted.
SQL>
SQL> INSERT INTO TRIP VALUES (
  2
           13,
  3
           TO_DATE('1/08/2024 13:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('1/08/2024 13:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('1/08/2024 14:30', 'dd/mm/yyyy hh24:mi'), TO_DATE('1/08/2024 15:00', 'dd/mm/yyyy hh24:mi'),
  5
  6
  8
           'dddddddddddddd6',
  9
           2015,
 10
           112,
 11
           105,
 12
           'pt',
 13
           6
 14
     );
1 row inserted.
SOL>
SQL> INSERT INTO TRIP VALUES (
  2
           14,
  3
           TO_DATE('22/07/2024 09:00', 'dd/mm/yyyy hh24:mi'),
           TO_DATE('22/07/2024 09:30', 'dd/mm/yyyy hh24:mi'),
           TO_DATE('22/07/2024 11:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('22/07/2024 11:00', 'dd/mm/yyyy hh24:mi'),
           'eeeeeeeeeeeeee7',
  9
           2003,
 10
           113,
```

```
11
             105,
 12
             'fr',
 13
             1
 14);
1 row inserted.
SQL> INSERT INTO TRIP VALUES (
  2
             15,
   3
             TO_DATE('24/07/2024 14:00', 'dd/mm/yyyy hh24:mi'),
TO_DATE('24/07/2024 14:00', 'dd/mm/yyyy hh24:mi'),
TO_DATE('24/07/2024 17:00', 'dd/mm/yyyy hh24:mi'),
TO_DATE('24/07/2024 17:00', 'dd/mm/yyyy hh24:mi'),
   5
              'eeeeeeeeeeeeee7',
   9
              2014,
 10
             114,
 11
             106,
 12
              'en',
 13
              9
 14 );
1 row inserted.
SOL>
SQL> INSERT INTO TRIP VALUES (
  2
             16,
   3
              TO_DATE('23/07/2024 13:30', 'dd/mm/yyyy hh24:mi'),
             TO_DATE('23/07/2024 13:30', 'dd/mm/yyyy hh24:mi'),
TO_DATE('23/07/2024 15:00', 'dd/mm/yyyy hh24:mi'),
TO_DATE('23/07/2024 14:30', 'dd/mm/yyyy hh24:mi'),
   6
   8
              'fffffffffffffff,,
   9
              2007,
 10
             107,
 11
              108,
 12
              'en',
 13
              2
 14);
1 row inserted.
SQL> INSERT INTO TRIP VALUES (
   2
             17,
  3
             TO_DATE('22/07/2024 09:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('22/07/2024 09:30', 'dd/mm/yyyy hh24:mi'), TO_DATE('22/07/2024 10:00', 'dd/mm/yyyy hh24:mi'),
   5
   6
              TO_DATE('22/07/2024 10:00', 'dd/mm/yyyy hh24:mi'),
   8
              'ggggggggggggggg',
   9
              2002,
 10
             101,
 11
              103,
 12
              'en',
```

```
13
              3
 14);
1 row inserted.
SOL>
SQL> INSERT INTO TRIP VALUES (
   3
              TO_DATE('23/07/2024 14:00', 'dd/mm/yyyy hh24:mi'),
             TO_DATE('23/07/2024 14:00', 'dd/mm/yyyy hh24:mi'),
TO_DATE('23/07/2024 15:00', 'dd/mm/yyyy hh24:mi'),
TO_DATE('23/07/2024 15:00', 'dd/mm/yyyy hh24:mi'),
   8
              'hhhhhhhhhhhhhhhhh
   9
              2001,
 10
             109,
 11
             110,
 12
              'en',
 13
              4
 14);
1 row inserted.
SQL> INSERT INTO TRIP VALUES (
  2
             19,
   3
             TO_DATE('24/07/2024 12:30', 'dd/mm/yyyy hh24:mi'),
             TO_DATE('24/07/2024 12:30', 'dd/mm/yyyy hh24:mi'),
TO_DATE('24/07/2024 14:00', 'dd/mm/yyyy hh24:mi'),
TO_DATE('24/07/2024 14:30', 'dd/mm/yyyy hh24:mi'),
              'hhhhhhhhhhhhhhhhh10',
   8
   9
              2005,
 10
             111,
 11
             116,
 12
              'es',
 13
              5
 14);
1 row inserted.
SQL>
SQL> INSERT INTO TRIP VALUES (
  2
              20,
  3
              40,
             TO_DATE('22/07/2024 09:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('22/07/2024 08:30', 'dd/mm/yyyy hh24:mi'), TO_DATE('22/07/2024 10:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('22/07/2024 09:30', 'dd/mm/yyyy hh24:mi'),
   5
   6
   8
              'hhhhhhhhhhhhhhhhh
   9
              2001,
 10
             101,
 11
             103,
 12
              'de',
 13
              10
 14
       );
```

```
1 row inserted.
SQL>
SQL> INSERT INTO TRIP VALUES (
  2
           21,
  3
           TO_DATE('5/08/2024 11:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('5/08/2024 11:00', 'dd/mm/yyyy hh24:mi'),
  4
  5
           TO_DATE('5/08/2024 12:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('5/08/2024 12:00', 'dd/mm/yyyy hh24:mi'),
  8
           'dddddddddddddd6',
  9
           2015,
 10
           115,
 11
           116,
 12
           'pt',
 13
           6
 14 );
1 row inserted.
SQL>
SQL> INSERT INTO TRIP VALUES (
 2
           22,
  3
           TO_DATE('6/08/2024 12:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('6/08/2024 12:00', 'dd/mm/yyyy hh24:mi'), TO_DATE('6/08/2024 13:00', 'dd/mm/yyyy hh24:mi'),
  5
           TO_DATE('6/08/2024 13:00', 'dd/mm/yyyy hh24:mi'),
           'dddddddddddddd',
           2013,
 10
           118,
 11
           116.
 12
           'en',
 13
           8
 14);
1 row inserted.
SOL>
SQL> COMMIT;
Commit complete.
SQL>
SOL> set echo on
SQL> -- Check INSERT Count
SQL> -----
SQL> set echo off
TableLoaded
                                                 COUNT(*)
                                                         10
1. OFFICIAL Rows (10 required):
2. VEHICLE Rows (10 required):
                                                         10
3. TRIP Rows(20 required):
```

SQL> -- EXPLICIT checks SQL> --

SQL> -- Check INSERT Data SQL> -----

SQL> set echo off SQL> -- OFFICIAL

SQL> set echo off

OFF_ID	OFF_GIVEN	OFF_FAMILY	CR_IOC_CODE	OFF_CDM
7	Cecelia	Chavez	AUS	
8	Arlen	Hays	AUS	7
9	Annmarie	Randall	AUS	7
5	Huey	Trujillo	ESP	
1	Heather	Pineda	FRA	
10	Krystal	Goodman	GER	
6	Courtney	Madden	POR	
2	Carol	Rich	USA	
3	Sebastian	Farmer	USA	2
4	Blanca	Mckenzie	USA	2

10 rows selected.

SQL> -- VEHICLE SQL> set echo off

VEH_VIN	VEH_REGO	VEH_YEAR	VEH_CURR_ODO	VEH_NOPASSENGERS	VM_MODEL_ID
ashqntjfuqnvdhf12	BBBBBB2	2023	22222	20	1
gwhg insutvd infrul	AAAAAA1	2022	11111	20	1
bbbbbbbbbbbbbbbbbbb	DDDDDDD4	2021	33333	60	2
nsjfwhdbfuydbwsh3	CCCCCC3	2022	33333	60	2
cccccccccccc5	EEEEEE5	2023	11111	60	3
dddddddddddddd6	FFFFFF6	2022	22222	60	3
eeeeeeeeeeeeee7	GGGGGG7	2022	11111	40	4
ffffffffffffffff	нннннн8	2023	11111	40	4
qqqqqqqqqqqqq	IIIIII9	2024	11111	40	5
hhhhhhhhhhhhhhh10	JJJJJ10	2024	11111	40	5

10 rows selected.

SQL> -- TRIP

SQL> set echo off

TRIP_ID RIVER_ID	TRIP_NOPASSENG PICKUP_LOCN_ID	GERS INTENDED_PICKUPDT DROPOFF_LOCN_ID LANG	ACTUAL_PICKUPDT _ISO_CODE OFF_I	INTENDED_DROPOFFDT D	ACTUAL_DROPOFFDT	VEH_VIN	D
		20 21/07/2024 09:00	21/07/2024 09:00		21/07/2024 10:00	ashgntjfugnvdhfl2	
2003	101	102 en		2			
1		18 21/07/2024 09:00	21/07/2024 09:00	21/07/2024 10:00	21/07/2024 10:00	qwhgjnsutvdjnfru1	
2001	101	102 fr		1			
2		19 21/07/2024 13:00	21/07/2024 13:00	21/07/2024 14:30	21/07/2024 14:30	qwhgjnsutvdjnfru1	
2002	111	113 fr		1			
17		34 22/07/2024 09:00	22/07/2024 09:30	22/07/2024 10:00	22/07/2024 10:00	gggggggggggggg	
2002	101	103 en		3			

20		40 22/07/2024 09:00	22/07/2024 08:30	22/07/2024 10:00	22/07/2024 09:30	hhhhhhhhhhhhhhhh
2001	101	103 de		10	00/05/0004 11-00	
14 2003	113	25 22/07/2024 09:00 105 fr	22/07/2024 09:30	22/07/2024 11:00	22/07/2024 11:00	eeeeeeeeeeeee7
2003 16	113	24 23/07/2024 13:30	23/07/2024 13:30	23/07/2024 15:00	23/07/2024 14:30	ffffffffffffffffff
2007	107	108 en	23/07/2021 13:30	2	23/0//2021 11130	
18		33 23/07/2024 14:00	23/07/2024 14:00	23/07/2024 15:00	23/07/2024 15:00	hhhhhhhhhhhhhhh10
2001	109	110 en		4		
4	100	20 24/07/2024 12:00	24/07/2024 12:30	24/07/2024 13:00	24/07/2024 13:00	ashgntjfugnvdhf12
2004 19	109	115 en 39 24/07/2024 12:30	24/07/2024 12:30	24/07/2024 14:00	24/07/2024 14:30	hhhhhhhhhhhhhhhh
2005	111	116 es	24/07/2024 12:30	5	24/07/2024 14:30	
15		28 24/07/2024 14:00	24/07/2024 14:00	24/07/2024 17:00	24/07/2024 17:00	eeeeeeeeeeeeee7
2014	114	106 en	, , , ,	9	, , , , , , , , , , , , , , , , , , , ,	
11		60 25/07/2024 10:00	25/07/2024 10:15	25/07/2024 12:00	25/07/2024 12:00	ccccccccccccc5
2011	105	102 en	05/05/0004 14/00	7	05/05/0004 15:00	_
10 2004	102	59 25/07/2024 14:00 103 pt	25/07/2024 14:00	25/07/2024 15:00	25/07/2024 15:30	cccccccccccc5
12	102	48 26/07/2024 11:00	26/07/2024 11:00	26/07/2024 12:30	26/07/2024 12:30	cccccccccccc5
2013	106	112 en	20/07/2021 11-00	8	20/0//2021 12-50	
5		35 26/07/2024 12:00	26/07/2024 12:00	26/07/2024 13:00	26/07/2024 13:10	nsjfwhdbfuydbwsh3
2006	104	106 en		3		
6	104	44 27/07/2024 11:00	27/07/2024 11:00	27/07/2024 12:00	27/07/2024 12:00	nsjfwhdbfuydbwsh3
2006	104	106 en 56 28/07/2024 10:30	28/07/2024 10:30	28/07/2024 11:30	28/07/2024 11:30	bbbbbbbbbbbbbbbb
2005	104	117 es	28/07/2024 10:30	5	28/07/2024 11:30	40000000000000000000000000000000000000
8	101	51 29/07/2024 11:00	29/07/2024 11:00	29/07/2024 12:30	29/07/2024 13:00	bbbbbbbbbbbbbbbb
2005	108	106 es		5		
7		55 30/07/2024 11:30	30/07/2024 11:30	30/07/2024 12:30	30/07/2024 12:30	bbbbbbbbbbbbbb4
2007	114	101 en	01/00/0004 13.00	4	01/00/2024 15.00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
13 2015	112	55 01/08/2024 13:00 105 pt	01/08/2024 13:00	01/08/2024 14:30	01/08/2024 15:00	ddddddddddddddd6
2013	112	5 05/08/2024 11:00	05/08/2024 11:00	05/08/2024 12:00	05/08/2024 12:00	ddddddddddddddd6
2015	115	116 pt	03,00,2021 11.00	6	03,00,2021 12:00	aaaaaaaaaaaaaa
22		48 06/08/2024 12:00	06/08/2024 12:00	06/08/2024 13:00	06/08/2024 13:00	ddddddddddddddd6
2013	118	116 en		8		

22 rows selected.

SQL> -- IMPLICIT checks

SQL> set echo off

OFFICIAL_and_VEHICLE_Requirements

Official IOC Countries/Regions count: Met -> at least 4 IOC Countries/Regions Vehicle model count: Met -> at least 3 vehicle models

SQL> -- OFFICIAL

SQL> -- Each country must have one CDM

SQL> set echo off

OFF_IOC_CODE NO_OF_CDM IOC_CDM_CHECK

AUS 1 Valid number of CDM
ESP 1 Valid number of CDM
FRA 1 Valid number of CDM

		Assignment 2	. I CCUDAUN		
POR 1 V	Valid number of CDM Valid number of CDM Valid number of CDM				
6 rows selected.					
SQL> OFFICIAL SQL> CDM does not have a massql> Official's manager mussQL> SQL> set echo off		ountry			
OFF_ID OFF_IOC_CODE	OFF_CDM CDM_IOC_CODE	CDM_CHECK			
3 USA 4 USA 8 AUS 9 AUS	2 USA 2 USA 7 AUS 7 AUS	Valid manager Valid manager Valid manager Valid manager			
SQL> TRIP requirements SQL> set echo off					
TRIP_Requirement					
Vehicle count: Met -> at least Official count: Met -> at least Driver count: Met -> at least Languange count: Met -> at least Parallel trip count: Met -> at	st 5 officials booked 5 drivers ast 5 languages	more than one trip	-		
SQL> TRIP SQL> Checking trip dates w: SQL> set echo off	ithin required range	20th July 2024 and 15t	th August 2024.		
DateType Outside	DateRange				
Trip Date Time	0				
SQL> Trips SQL> Checking trip drop-of: SQL> SQL> set echo off	f time is after the p	ick-up time, and sensi	ble trip duration		
TRIP_ID INTENDED_PICKUPDT	ACTUAL_PICKUPDT	INTENDED_DROPOFFDT	ACTUAL_DROPOFFDT	DURATION	TIME_CHECK
1 21/07/2024 09:00 2 21/07/2024 13:00 3 21/07/2024 09:00 4 24/07/2024 12:00 5 26/07/2024 12:00	21/07/2024 09:00 21/07/2024 13:00 21/07/2024 09:00 24/07/2024 12:30 26/07/2024 12:00	21/07/2024 10:00 21/07/2024 14:30 21/07/2024 10:00 24/07/2024 13:00 26/07/2024 13:00	21/07/2024 10:00 21/07/2024 14:30 21/07/2024 10:00 24/07/2024 13:00 26/07/2024 13:10	1.0 1.5 1.0 1.0	Valid pick-up and drop-off times

27/07/2024 12:00

30/07/2024 12:30

29/07/2024 13:00

28/07/2024 11:30

25/07/2024 15:30

25/07/2024 12:00

1.0

1.0

1.5

1.0

1.0

2.0

Valid pick-up and drop-off times

27/07/2024 12:00

30/07/2024 12:30

29/07/2024 12:30

28/07/2024 11:30

25/07/2024 15:00

25/07/2024 12:00

6 27/07/2024 11:00

7 30/07/2024 11:30

8 29/07/2024 11:00

9 28/07/2024 10:30

10 25/07/2024 14:00

11 25/07/2024 10:00

27/07/2024 11:00

30/07/2024 11:30

29/07/2024 11:00

28/07/2024 10:30

25/07/2024 14:00

25/07/2024 10:15

12 26/07/2024 11:00	26/07/2024 11:00	26/07/2024 12:30	26/07/2024 12:30	1.5	Valid pick-up and drop-off times
13 01/08/2024 13:00	01/08/2024 13:00	01/08/2024 14:30	01/08/2024 15:00	1.5	Valid pick-up and drop-off times
14 22/07/2024 09:00	22/07/2024 09:30	22/07/2024 11:00	22/07/2024 11:00	2.0	Valid pick-up and drop-off times
15 24/07/2024 14:00	24/07/2024 14:00	24/07/2024 17:00	24/07/2024 17:00	3.0	Valid pick-up and drop-off times
16 23/07/2024 13:30	23/07/2024 13:30	23/07/2024 15:00	23/07/2024 14:30	1.5	Valid pick-up and drop-off times
17 22/07/2024 09:00	22/07/2024 09:30	22/07/2024 10:00	22/07/2024 10:00	1.0	Valid pick-up and drop-off times
18 23/07/2024 14:00	23/07/2024 14:00	23/07/2024 15:00	23/07/2024 15:00	1.0	Valid pick-up and drop-off times
19 24/07/2024 12:30	24/07/2024 12:30	24/07/2024 14:00	24/07/2024 14:30	1.5	Valid pick-up and drop-off times
20 22/07/2024 09:00	22/07/2024 08:30	22/07/2024 10:00	22/07/2024 09:30	1.0	Valid pick-up and drop-off times
21 05/08/2024 11:00	05/08/2024 11:00	05/08/2024 12:00	05/08/2024 12:00	1.0	Valid pick-up and drop-off times
22 06/08/2024 12:00	06/08/2024 12:00	06/08/2024 13:00	06/08/2024 13:00	1.0	Valid pick-up and drop-off times

22 rows selected.

 $\mbox{SQL} >$ -- Trips $\mbox{SQL} >$ -- Checking vehicle must accommodate the requested number of passengers

SQL> set echo off

TRIP_ID	TRIP_NOPASSENGERS	VEH_NOPASSENGERS	PASSE	IGER_CH	ECK	
	18	20	Valid	number	of	passengers
2	19	20	Valid	number	of	passengers
3	20	20	Valid	number	of	passengers
4	20					passengers
5	35					passengers
6	44	60	Valid	number	of	passengers
7	55					passengers
8	51					passengers
9	56					passengers
10	59					passengers
11	60					passengers
12	48	60	Valid	number	of	passengers
13	55					passengers
14	25					passengers
15	28					passengers
16	24	40	Valid	number	of	passengers
17	34	40	Valid	number	of	passengers
18	33					passengers
19	39					passengers
20	40					passengers
21	5					passengers
22	48	60	Valid	number	of	passengers

22 rows selected.

SQL> -- PKs used - must be under 100

SQL> set echo off

TABLE_NAME PK_ABOVE_100 OFFICIAL 0 TRIP

TASK 3 DML Marking

```
SQL> ----- Student Data replaced with marking data -----
SOL> ----- Task 3 DML -----
SOL> @T3-pat-dml.sql
SOL> /****PLEASE ENTER YOUR DETAILS BELOW*****/
SOL> --T3-pat-dml.sql
SOL>
SQL> --Student ID:35009411
SQL> --Student Name: Shuyang Yan
SQL> /* Comments for your marker:
SOL>In question d, assuming that a driver cannot skip a trip booking among all bookings allocated to him.
SQL>And he must complete the bookings sequentially.
SQL>For example, if a driver has not completed a booking at 10AM, he cannot start any booking after 10AM.
SQL>And also a driver cannot be booked during another booking. He can only be assigned after actually arriving at a drop place.
SOL>
SQL>
SOL>*/
SOL>
SQL> /*(a)*/
SOL> DROP SEQUENCE OFF ID SEO;
Error starting at line: 17 File @ Shuyang Yan_2701096_assignsubmission_file/T3-pat-dml.sql
In command -
DROP SEQUENCE OFF_ID_SEQ
Error report -
ORA-02289: sequence does not exist
https://docs.oracle.com/error-help/db/ora-02289/02289. 00000 - "sequence does not exist"
*Cause:
          The specified sequence does not exist, or the user does
          not have the required privilege to perform this operation.
*Action:
          Make sure the sequence name is correct, and that you have
          the right to perform the desired operation on this sequence.
SOL>
SOL> DROP SEQUENCE TRIP ID SEO;
Error starting at line: 19 File @ Shuyang Yan_2701096_assignsubmission_file/T3-pat-dml.sql
In command -
DROP SEQUENCE TRIP ID SEQ
Error report -
ORA-02289: sequence does not exist
https://docs.oracle.com/error-help/db/ora-02289/02289. 00000 - "sequence does not exist"
*Cause:
          The specified sequence does not exist, or the user does
          not have the required privilege to perform this operation.
          Make sure the sequence name is correct, and that you have
*Action:
          the right to perform the desired operation on this sequence.
SQL> CREATE SEQUENCE OFF_ID_SEQ START WITH 100 INCREMENT BY 10;
Sequence OFF ID SEO created/
SOL>
SQL> CREATE SEQUENCE TRIP_ID_SEQ START WITH 100 INCREMENT BY 10;
Sequence TRIP_ID_SEQ created.
```

```
SQL>
SOL > /*(b)*/
SQL> INSERT INTO OFFICIAL VALUES (
         OFF_ID_SEQ.NEXTVAL,
  3
         'Franklin',
  4
         'Gateau',
  5
         ( SELECT CR_IOC_CODE FROM COUNTRY REGION WHERE UPPER(CR_NAME) = UPPER('St Vincent and the Grenadines') ),
     );
1 row inserted.
SQL>
SQL> INSERT INTO VEHICLE VALUES (
         '1C4SDHCT9FC614231',
         'ZZZZZZZ',
         TO_DATE('2022', 'yyyy'),
  5
         11111,
  6
         ( SELECT VM_MODEL_ID FROM VEHICLE_MODEL WHERE UPPER(VM_MODEL) = UPPER('ALPHARD') AND MAN_ID = ( SELECT MAN_ID FROM MANUFACTURER WHE
RE UPPER(MAN_NAME) = UPPER('TOYOTA') )
  8);
1 row inserted.
SOL>
SQL> COMMIT;
Commit complete.
SQL>
SQL> /*(c)*/
SQL> INSERT INTO TRIP VALUES (
         TRIP_ID_SEQ.NEXTVAL,
  3
         TO_DATE('30/07/2024 12:30', 'dd/mm/yyyy hh24:mi'),
         TO_DATE('30/07/2024 12:30', 'dd/mm/yyyy hh24:mi'),
         TO_DATE('30/07/2024 12:30', 'dd/mm/yyyy hh24:mi') + 1/24 + 30/(24*60),
         TO_DATE('30/07/2024 12:30', 'dd/mm/yyyy hh24:mi') + 1/24 + 30/(24*60),
         '1C4SDHCT9FC614231',
  8
  9
          ( SELECT DRIVER_ID FROM DRIVER WHERE UPPER(DRIVER_LICENCE) = UPPER('55052a543210') ),
 10
           SELECT LOCN_ID FROM LOCATION WHERE UPPER(LOCN_NAME) = UPPER('Olympic and Paralympic Village') ),
           SELECT LOCN_ID FROM LOCATION WHERE UPPER(LOCN_NAME) = UPPER('Porte de la Chapelle Arena')),
 11
 12
          ( SELECT LANG_ISO_CODE FROM LANGUAGE WHERE UPPER(LANG_NAME) = UPPER('English') ),
         OFF_ID_SEQ.CURRVAL
 13
14
     );
1 row inserted.
SOL>
SQL> INSERT INTO TRIP VALUES (
         TRIP ID SEO.NEXTVAL,
  3
         TO_DATE('30/07/2024 20:00', 'dd/mm/yyyy hh24:mi'),
TO_DATE('30/07/2024 20:00', 'dd/mm/yyyy hh24:mi'),
TO_DATE('30/07/2024 20:00', 'dd/mm/yyyy hh24:mi') + 1/24 + 15/(24*60),
  5
```

```
TO_DATE('30/07/2024 20:00', 'dd/mm/yyyy hh24:mi') + 1/24 + 15/(24*60),
  8
         '1C4SDHCT9FC614231',
  9
         ( SELECT DRIVER_ID FROM DRIVER WHERE UPPER(DRIVER_LICENCE) = UPPER('55052a543210') ),
 10
           SELECT LOCN_ID FROM LOCATION WHERE UPPER(LOCN_NAME) = UPPER('Porte de la Chapelle Arena') ),
           SELECT LOCN_ID FROM LOCATION WHERE UPPER(LOCN_NAME) = UPPER('Olympic and Paralympic Village') ),
 11
 12
           SELECT LANG_ISO_CODE FROM LANGUAGE WHERE UPPER(LANG_NAME) = UPPER('English') ),
 13
         OFF_ID_SEQ.CURRVAL
 14 );
1 row inserted.
SQL> COMMIT;
Commit complete.
SOL>
SQL > /*(d)*/
SQL> UPDATE TRIP
 2
    SET
  3
         TRIP_ACT_PICKUPDT = TO_DATE(
  4
             \overline{\phantom{0}}30/\overline{0}7/2024 \ 12:30',
  5
             'dd/mm/yyyy hh24:mi'
  6
         TRIP_ACT_DROPOFFDT = TO_DATE(
  8
             '30/07/2024 12:30',
  9
             'dd/mm/yyyy hh24:mi'
 10
         ) + 1/24 + 45/(
 11
             24*60
 12
 13
    WHERE
         TO_CHAR(TRIP_INT_PICKUPDT, 'dd/mm/yyyy hh24:mi') = '30/07/2024 12:30'
 14
         AND TO_CHAR(TRIP_INT_DROPOFFDT - 1/24 - 30/(24*60), 'dd/mm/yyyy hh24:mi') = '30/07/2024 12:30'
 15
 16
         AND VEH_VIN = '1C4SDHCT9FC614231'
 17
         AND DRIVER_ID = (
 18
             SELECT
 19
                 DRIVER_ID
 20
             FROM
 21
                 DRIVER
 22
             WHERE
 23
                 UPPER(DRIVER_LICENCE) = UPPER('55052a543210')
 24
         );
1 row updated.
SOL>
SQL> UPDATE TRIP
 2
    SET
  3
         TRIP_ACT_PICKUPDT = NULL,
         TRIP_ACT_DROPOFFDT = NULL
  5
         TO_CHAR(TRIP_INT_PICKUPDT, 'dd/mm/yyyy hh24:mi') = '30/07/2024 20:00'
         AND TO_CHAR(TRIP_INT_DROPOFFDT - 1/24 - 15/1440, 'dd/mm/yyyy hh24:mi') = '30/07/2024 20:00'
         AND VEH_VIN = '1C4SDHCT9FC614231'
         AND DRIVER_ID = (
 10
             SELECT
```

```
11
                 DRIVER_ID
12
             FROM
13
                 DRIVER
14
             WHERE
15
                 UPPER(DRIVER_LICENCE) = UPPER('55052a543210')
16
        );
1 row updated.
SQL>
SQL> COMMIT;
Commit complete.
SOL>
SQL> DELETE FROM TRIP
    WHERE
 3
        DRIVER_ID = (
  4
             SELECT
  5
                 DRIVER_ID
  6
             FROM
                 DRIVER
  8
             WHERE
  9
                 UPPER(DRIVER_LICENCE) = UPPER('55052a543210')
10
11
         AND TRIP_INT_PICKUPDT > TO_DATE('30/07/2024 17:00', 'dd/mm/yyyy hh24:mi')
12
         AND TRIP_INT_PICKUPDT < TO_DATE('31/07/2024 00:00', 'dd/mm/yyyy hh24:mi');
2 rows deleted.
SQL>
SQL> COMMIT;
Commit complete.
SQL> -- Check the new record in OFFICIAL table
SQL> set echo off
  OFF_ID OFF_GIVEN
                                                        OFF_CDM
                       OFF FAMILY
                                     CR_IOC_CODE
     100 Franklin
                       Gateau
                                     VIN
SQL> --Check the new record in VEHICLE table
SQL> set echo off
VEH_VIN
                     VEH_REGO
                                 VEH_YEAR
                                                VEH_CURR_ODO
                                                                 VEH_NOPASSENGERS
                                                                                     VM_MODEL_ID
1C4SDHCT9FC614231
                                                        11111
                     ZZZZZZZ
                                 2022
SQL> -- Check Claire's trips in TRIP table
SQL> set echo off
  TRIP_ID
              TRIP_NOPASSENGERS INTENDED_PICKUPDT
                                                     ACTUAL_PICKUPDT
                                                                          INTENDED_DROPOFFDT
                                                                                                ACTUAL_DROPOFFDT
                                                                                                                     VEH_VIN
RIVER_ID PICKUP_LOCN_ID
                            DROPOFF_LOCN_ID LANG_ISO_CODE
                                                                   OFF_ID
```

100		6 30/07/2024 12:30	30/07/2024 12:30	30/07/2024 14:00	30/07/2024 14:15	1C4SDHCT9FC614231
2014	113	111 en	100	0		
7		10 30/07/2024 16:45	30/07/2024 16:45	30/07/2024 18:00		4T1BK3DB2BU891397
2014	120	114 en	C C	5		

TASK 4 Modifications Marking

```
SQL> ----- Task 4 ALTER ------
SOL> @T4-pat-mods.sql
SQL> /****PLEASE ENTER YOUR DETAILS BELOW*****/
SQL> --T4-pat-mods.sql
SOL>
SOL> --Student ID:35009411
SQL> --Student Name: Shuyang Yan
SOL>
SQL> /* Comments for your marker:
SQL>In question a, I assume that the rule, 'The Chef de Mission of each country must be assigned an Administrator role',
SQL>also works when inserting new cdms into the table.
SQL>
SQL>
SOL>
SQL>*/
SOL>
SQL > /*(a)*/
SQL> ALTER TABLE OFFICIAL
       ADD (
 3
            OFF_ROLE CHAR(1),
            CONSTRAINT CHK_OFF_ROLE CHECK (
  5
                (OFF_CDM IS NOT NULL AND OFF_ROLE IN ('G', 'A', 'H', 'C', 'P'))
                OR (OFF_CDM IS NULL AND OFF_ROLE = 'A')
  8
        );
Table OFFICIAL altered.
SOL>
SQL> COMMENT ON COLUMN official.off_role IS
 2 🗸 'Role of an official. G for General. A for Administratior. H for Head Coach. C for Coach. P for Phisician';
Comment created.
SQL>
SQL> UPDATE OFFICIAL
 2 SET
        OFF_ROLE = 'G'
 3
    WHERE
  5
        OFF CDM IS NOT NULL;
3 rows updated.
SQL>
SOL> UPDATE OFFICIAL
 2 SET
 3
        OFF_ROLE = 'A'
 4 WHERE
        OFF CDM IS NULL;
13 rows updated. V
SOL>
SQL> COMMIT; ✓
```

Commit complete. SQL> ALTER TABLE OFFICIAL MODIFY OFF_ROLE DEFAULT 'G' NOT NULL; Table OFFICIAL altered. SQL> SQL> SELECT OFF_CDM, OFF_ROLE 3 FROM OFFICIAL; V OFF_CDM OFF_ROLE Α 1 G Α 3 G Α Α Α Α Α 14 G Α 16 rows selected. SQL> SQL> desc official Null? Name Type OFF_ID NOT NULL NUMBER (4) OFF_GIVEN VARCHAR2(30) OFF_FAMILY VARCHAR2(30) CR_IOC_CODE NOT NULL CHAR(3) OFF_CDM NUMBER(4) OFF_ROLE NOT NULL CHAR(1) SQL> /*(b)*/ T4.A MARKED SQL> DROP TABLE COMPLAINT CASCADE CONSTRAINTS PURGE; Error starting at line : 54 File @ Shuyang Yan_2701096_assignsubmission_file/T4-pat-mods.sql In command -DROP TABLE COMPLAINT CASCADE CONSTRAINTS PURGE Error report -ORA-00942: table or view does not exist

```
https://docs.oracle.com/error-help/db/ora-00942/00942. 00000 - "table or view%s does not exist"
*Cause:
           The specified table or view did not exist, or a synonym
           pointed to a table or view that did not exist.
           To find existing user tables and views, guery the
           ALL TABLES and ALL VIEWS data dictionary views. Certain
           privileges may be required to access the table. If an
           application returned this message, then the table that the
           application tried to access did not exist in the database, or
           the application did not have access to it.
*Action:
          Check each of the following
           - The spelling of the table or view name is correct.
           - The referenced table or view name does exist.
           - The synonym points to an existing table or view.
SOL>
SOL> DROP TABLE COMPLAINT CATEGORY CASCADE CONSTRAINTS PURGE;
Error starting at line: 56 File @ Shuyang Yan 2701096 assignsubmission file/T4-pat-mods.sql
In command -
DROP TABLE COMPLAINT CATEGORY CASCADE CONSTRAINTS PURGE
Error report -
ORA-00942: table or view does not exist
https://docs.oracle.com/error-help/db/ora-00942/00942. 00000 - "table or view%s does not exist"
           The specified table or view did not exist, or a synonym
*Cause:
           pointed to a table or view that did not exist.
           To find existing user tables and views, guery the
           ALL_TABLES and ALL_VIEWS data dictionary views. Certain
           privileges may be required to access the table. If an
           application returned this message, then the table that the
           application tried to access did not exist in the database, or
           the application did not have access to it.
          Check each of the following
*Action:
           - The spelling of the table or view name is correct.
           - The referenced table or view name does exist.
           - The synonym points to an existing table or view.
SOL> CREATE TABLE COMPLAINT (
        CPLT_ID NUMBER(6) NOT NULL,
 3
        TRIP_ID NUMBER(4) NOT NULL,
        CPLT DATE DATE NOT NULL,
        CPLT_CTG_ID NUMBER(2) NOT NULL,
        CPLT_COMMENT VARCHAR2(150) NOT NULL,
        CPLT FLAG CHAR(1)
    );
Table COMPLAINT created.
SOL>
SQL> COMMENT ON COLUMN COMPLAINT.CPLT_ID IS
         'Identifier for a complaint.';
Comment created.
SOL>
SOL> COMMENT ON COLUMN COMPLAINT. TRIP ID IS
         'Identifier for a trip.';
```

```
Comment created.
SQL>
SOL> COMMENT ON COLUMN COMPLAINT.CPLT DATE IS
        'Date and time for the complaint.';
Comment created.
SOL>
SOL> COMMENT ON COLUMN COMPLAINT.CPLT CTG ID IS
         'Identifier for a category of a complaint.';
Comment created.
SQL> COMMENT ON COLUMN COMPLAINT.CPLT_COMMENT IS
       'Detailed comment for a complaint.';
Comment created.
SQL>
SQL> COMMENT ON COLUMN COMPLAINT.CPLT_FLAG IS
         'Flag for whether a complaint is valid or not. V for valid and I for invalid.';
Comment created.
SQL>
SOL> ALTER TABLE COMPLAINT
             CONSTRAINT COMPLAINT_PK PRIMARY KEY ( CPLT_ID ),
  4
             CONSTRAINT COMPLAINT_UQ UNIQUE ( TRIP_ID, CPLT_DATE ),
            CONSTRAINT CHK_CPLT_FLAG CHECK ( CPLT_FLAG IN ('V', 'I'))
  5
        );
Table COMPLAINT altered.
SQL> CREATE TABLE COMPLAINT_CATEGORY (
        CPLT CTG ID NUMBER(2) NOT NULL,
 3
        CPLT_CTG_NAME VARCHAR2(30) NOT NULL,
        CPLT_CTG_DM_POINT NUMBER(2) NOT NULL
  5);
Table COMPLAINT_CATEGORY created.
SQL> COMMENT ON COLUMN COMPLAINT_CATEGORY.CPLT_CTG_ID IS
        'Identifier for a category of a complaint.';
Comment created.
SOL>
SQL> COMMENT ON COLUMN COMPLAINT CATEGORY.CPLT_CTG NAME IS
         'Name for a category of a complaint.';
```

```
Comment created.
SOL>
SQL> COMMENT ON COLUMN COMPLAINT_CATEGORY.CPLT_CTG_DM_POINT IS
        'Demerit point for a category of a complaint.';
Comment created.
SQL> ALTER TABLE COMPLAINT_CATEGORY
 2
        ADD (
 3
             CONSTRAINT COMPLAINT_CATEGORY_PK PRIMARY KEY ( CPLT_CTG_ID ),
             CONSTRAINT COMPLAINT CATEGORY UQ UNIQUE ( CPLT_CTG_NAME )
Table COMPLAINT_CATEGORY altered.
SQL>
SQL>
SOL>
SQL> ALTER TABLE COMPLAINT
        ADD (
             CONSTRAINT TRIP_COMPLAINT_FK FOREIGN KEY ( TRIP_ID ) REFERENCES TRIP ( TRIP_ID ),
             CONSTRAINT COMPLAINT_CATEGORY_COMPLAINT_FK FOREIGN KEY ( CPLT_CTG_ID ) REFERENCES COMPLAINT_CATEGORY ( CPLT_CTG_ID )
        );
Table COMPLAINT altered.
SOL>
SQL>
SQL>
SQL>
SQL> INSERT INTO COMPLAINT_CATEGORY VALUES (
        1,
        'late arrival',
        1
  5 );
1 row inserted.
SOL>
SQL> INSERT INTO COMPLAINT_CATEGORY VALUES (
         'rude behaviour',
  5
    );
1 row inserted.
SQL> INSERT INTO COMPLAINT_CATEGORY VALUES (
         3,
         'poor driving',
  5
    );
```

```
1 row inserted.
SOL>
SQL> INSERT INTO COMPLAINT_CATEGORY VALUES (
  3
         'failing to assist',
  4
         1
  5
     );
1 row inserted.
SOL>
SQL> COMMIT;
Commit complete.
SOL>
SQL> SELECT
  2
  3
     FROM
         COMPLAINT_CATEGORY;
   CPLT_CTG_ID CPLT_CTG_NAME
                                        CPLT_CTG_DM_POINT
             1 late arrival
             2 rude behaviour
             3 poor driving
             4 failing to assist
SOL>
SQL> desc complaint;
Name
                Null?
                             Type
                NOT NULL
CPLT_ID
                             NUMBER (6)
TRIP_ID
                NOT NULL
                             NUMBER (4)
CPLT_DATE
                NOT NULL
                             DATE
CPLT_CTG_ID
                NOT NULL
                            NUMBER (2)
CPLT_COMMENT
                NOT NULL
                             VARCHAR2(150)
CPLT_FLAG
                             CHAR(1)
SQL>
SQL> desc COMPLAINT_CATEGORY;
                     Null?
Name
                                  Type
CPLT_CTG_ID
                     NOT NULL
                                  NUMBER (2)
CPLT_CTG_NAME
                     NOT NULL
                                  VARCHAR2(30)
CPLT_CTG_DM_POINT
                     NOT NULL
                                  NUMBER (2)
SQL>
SOL> set echo off
SQL> -- Check OFFICIAL table
SOL> set echo off
                                                         OFF_CDM OFF_ROLE
   OFF_ID OFF_GIVEN
                       OFF_FAMILY
                                      CR_IOC_CODE
        5 James
                       Smith
                                      AUS
                                                                 Α
```

	Ana Olivia	Costa	BRA CAN		A A
	Wei	Zhang	CHN		A
_	Ahmed	Hassan	EGY		A
	Alejandro	110000011	ESP		A
	Pierre	Martin	FRA		Α
4	Sophie	Dubois	FRA	3	G
6	Laura	Schmidt	GER		Α
7	Yui	Suzuki	JPN		Α
12		Batyrova	KAZ		Α
14	Oluwaseun	Okafor	NGR		Α
15	Chioma	Adeyemi	NGR	14	G
1	Emily	Williams	USA		Α
2	Michael	Johnson	USA	1	G
100	Franklin	Gateau	VIN		Α

16 rows selected.

T4.B MARKED

TASK 5 SQL Queries Marking

```
SQL> ----- Task 5 SQL SELECT ------
SQL> set echo off
SQL> @T5-pat-select.sql
SQL> /****PLEASE ENTER YOUR DETAILS BELOW*****/
SOL> --T5-pat-select.sql
SOL>
SQL> --Student ID:35009411
SQL> --Student Name: Shuyang Yan
SOL>
SQL>
SQL> /* Comments for your marker:
SQL>In question b, assuming that a trip must actually start and end within the same day.
SQL>
SQL>
SOL>
SQL>*/
SOL>
SQL>
SQL > /* (a) */
SQL> -- PLEASE PLACE REQUIRED SQL SELECT STATEMENT FOR THIS PART HERE
SQL> -- ENSURE that your query is formatted and has a semicolon
SQL> -- (;) at the end of this answer
SQL> SELECT
 2
        L.LOCN_ID,
  3
        LOCN_NAME,
        LOCN ADDRESS
  5
        LOCNTYPE_DESCRIPTION,
  6
        NVL(PICKUP_COUNT, 0) + NVL(DROPOFF_COUNT, 0) AS "PICKUP/DROPOFF_COUNT"
    FROM
  8
        LOCATION
 9
        NATURAL JOIN LOCATION_TYPE
10
        LEFT OUTER JOIN (
11
            SELECT
12
                PICKUP_LOCN_ID AS LOCN_ID,
13
                COUNT(*)
                          AS PICKUP COUNT
14
            FROM
15
                TRIP
16
            WHERE
17
                TRIP_ACT_DROPOFFDT IS NOT NULL
18
            GROUP BY
19
                PICKUP_LOCN_ID
20
        ) P
 21
        ON L.LOCN_ID = P.LOCN_ID
        LEFT OUTER JOIN (
 22
 23
            SELECT
 24
                DROPOFF_LOCN_ID AS LOCN_ID,
 25
                COUNT(*)
                          AS DROPOFF_COUNT
 26
            FROM
 27
                TRIP
 28
 29
                TRIP_ACT_DROPOFFDT IS NOT NULL
 30
            GROUP BY
 31
                DROPOFF_LOCN_ID
 32
        ) D
33
        ON L.LOCN_ID = D.LOCN_ID
    ORDER BY
```

35 "PICKUP/DROPOFF_COUNT" DESC, 36 LOCN_ID;

LOCN_ID LOCN_NAME LOCNTYPE_DESCRIPTION PICKUP/DROPOFF_COUNT	LOCN_ADDRESS		
	D1, 93200 Saint-Denis, France 75116 Paris, France 261 Bd de Tournai, 59650 Villeneuve-d'Ascq, France 75001 Paris, France 35 Rue du Chevalier de la Barre, 75018 Paris, France Av. Gustave Eiffel, 75007 Paris, France 1 Pl. de la Prte de Versailles, 75015 Paris, France Hall 8, 82 Av. des Nations, 93420 Villepinte, France 56 Bd Ney, 75018 Paris, France 2 Av. Gordon Bennett, 75016 Paris, France 1 Rue Laurent Fignon, Pl. de la Paix Celeste, 78180 Montigny-le-Bretonneux, France 8 Bd de Bercy, 75012 Paris, France 2 Pl. Joffre, 75007 Paris, France Pl. Jacques Rueff, 75007 Paris, France 99 Jard. de l'Arche, 92000 Nanterre, France 75001 Paris, France 10 Bd du Palais, 75001 Paris, France Pl. Charles de Gaulle, 75008 Paris, France Cr Jules Ladoumeque, 33300 Bordeaux, France		
Stadium 0 106 La Beaujoire Stadium Stadium 0 108 Parc des Princes Stadium 0	333 Rte de Saint-Joseph, 44300 Nantes, France 24 Rue du Commandant Guilbaud, 75016 Paris, France		

21 rows selected.

SQL>
SQL> /* (b) */
SQL> -- PLEASE PLACE REQUIRED SQL SELECT STATEMENT FOR THIS PART HERE
SQL> -- ENSURE that your query is formatted and has a semicolon

```
SQL> -- (;) at the end of this answer
SQL> SELECT
 2
         DRIVER_ID,
 3
         TRIM(DRIVER_GIVEN
  4
                DRIVER_FAMILY)
  5
                                                                                   AS FULLNAME,
  6
        NVL(LPAD(TO_CHAR(SUM(PAYMENT_A_TRIP), '$9990.99'), 20, ''), 'NO Trips') AS TOTAL PERIOD_PAYMENT
    FROM
 8
         DRIVER
 9
         LEFT OUTER JOIN (
10
             SELECT
11
                 DRIVER_ID,
12
                 (TRIP_ACT_DROPOFFDT - TRIP_ACT_PICKUPDT) * 24 * 45.42 AS PAYMENT_A_TRIP
13
             FROM
14
                 TRIP
15
             WHERE
16
                 TRIP_ACT_DROPOFFDT BETWEEN TO_DATE('01/08/2024', 'dd/mm/yyyy') AND TO_DATE('07/08/2024', 'dd/mm/yyyy')
17
18
        USING (DRIVER_ID)
19
    GROUP BY
20
        DRIVER_ID,
21
         DRIVER_GIVEN
22
23
           DRIVER_FAMILY
 24
    ORDER BY
25
        DRIVER_ID;
  DRIVER_ID FULLNAME
                                  TOTAL_PERIOD_PAYMENT
        2001 Pierre Martin
                                                 $41.63
        2002 Marie Dupont
                                  No Trips
        2003 Louis Dubois
                                  No Trips
        2004 Antoine Lefevre
                                  No Trips
        2005 Sophie Bernard
                                                  $4.54
        2006 Arman
                                                $285.39
        2007 Jean Moreau
                                  No Trips
        2008 Isabelle Fournier
                                                 $24.98
        2009 Emilie Michel
                                  No Trips
        2010 Naoki Fujimoto
                                  No Trips
        2011 Mathieu Girard
                                  No Trips
        2012 Mansour
                                                 $20.44
        2013 Lei Xiong
                                                 $19.68
        2014 Claire Robert
                                  No Trips
        2015 Nathalie Renaud
                                                  $8.33
15 rows selected.
SQL>
```

SQL> spool off

TASK 6 JSON SELECT Marking

```
SQL> ----- Task 6 MongoDB (a) -----
SQL> @T6-pat-json.sql
SQL> /****PLEASE ENTER YOUR DETAILS BELOW*****/
SQL> --T6-pat-json.sql
SOL>
SOL> --Student ID:35009411
SQL> --Student Name: Shuyang Yan
SOL>
SQL> /* Comments for your marker:
SOL>
SQL>
SQL>
SQL>
SOL>*/
SQL>
SQL> -- PLEASE PLACE REQUIRED SQL SELECT STATEMENT TO GENERATE
SQL> -- THE COLLECTION OF JSON DOCUMENTS HERE
SQL> -- ENSURE that your query is formatted and has a semicolon
SQL> -- (;) at the end of this answer
SQL> SELECT
 2
            JSON_OBJECT(
  3
                 '_id' VALUE DRIVER_ID,
                         'name' VALUE TRIM(DRIVER_GIVEN
                                              DRIVER_FAMILY),
                         'licence_num' VALUE DRIVER_LICENCE,
                         'no_of_trips' VALUE COUNT(T.TRIP_ACT_DROPOFFDT),
  9
                         'suspended' VALUE DRIVER_SUSPENDED,
10
                         'trips_info' VALUE JSON_ARRAYAGG(
11
                    JSON_OBJECT(
12
                         'trip_id' VALUE T.TRIP_ID,
 13
                                 'veh_vin' VALUE VEH_VIN,
14
                                 "pick-up' VALUE
                             JSON OBJECT
15
 16
                                 'location_id' VALUE T.PICKUP_LOCN_ID,
17
                                         'location_name' VALUE L1.LOCN_NAME,
18
                                         'intended_datetime' VALUE TO_CHAR(T.TRIP_INT_PICKUPDT, 'dd/mm/yyyy hh24:mi'),
                                         'actual_datetime' VALUE TO_CHAR(T.TRIP_ACT_PICKUPDT, 'dd/mm/yyyy hh24:mi')
19
 20
                               ✓ drop off' VALUE
 21
 22
                             JSON_OBJECT(
 23
                                 'location_id' VALUE T.DROPOFF_LOCN_ID,
 24
                                         'location_name' VALUE L2.LOCN_NAME,
 25
                                         'intended_datetime' VALUE TO_CHAR(T.TRIP_INT_DROPOFFDT, 'dd/mm/yyyy hh24:mi'), **...
 26
                                         'actual_datetime' VALUE TO_CHAR(T.TRIP_ACT_DROPOFFDT, 'dd/mm/yyyy hh24:mi')
 27
 28
 29
 30
             FORMAT JSON
 31
             || ','
 32
    FROM
 33
              DRIVER
 34
        NATURAL JOIN TRIP
 35
        JOIN LOCATION L1 ON T.PICKUP_LOCN_ID = L1.LOCN_ID
 36
        JOIN LOCATION L2 ON T.DROPOFF_LOCN_ID = L2.LOCN_ID
```

```
37
                WHERE
    38
                             DRIVER ID IN (
    39
                                          SELECT
    40
                                                       DRIVER_ID
    41
                                           FROM
    42
                                                       TRIP
    43
                                           WHERE
                                                       TRIP ACT DROPOFFDT IS NOT NULL
    44
    45
    46
                GROUP BY
    47
                             DRIVER ID,
    48
                             DRIVER GIVEN
    49
                                   1 1
    50
                                      DRIVER FAMILY,
    51
                             DRIVER LICENCE,
                             DRIVER_SUSPENDED
    52
    53
                 ORDER BY
    54
                             DRIVER ID;
 JSON_OBJECT('_ID'VALUEDRIVER_ID,'NAME'VALUETRIM(DRIVER_GIVEN||''||DRIVER_FAMILY),'LICENCE_NUM'VALUEDRIVER_LICENCE,'NO_OF_TRIPS'VALUECOUNT(T.
 TRIP ACT DROPOFFDT), 'SUSPENDED'VALUEDRIVER SUSPENDED, 'TRIPS INFO VALUEJSON ARRAYAGG(JSON OBJECT('TRIP ID'VALUET
 {"_id":2001, "name": "Pierre Martin", "licence_num": "120501123456", "no_of_trips": 2, "suspended": "N", "trips_info": [{"trip_id": 13, "veh_vin": "3VW1K
 7AJ8DM593363", "pick-up":{ "location_id":107, "location_name": "North Paris Arena", "intended_datetime": "02/08/2024 12:00", "actual_datetime": "02/08/2024 12:00", "02/08/2024 12:00", "02/08/2024 12:00", "02/08/2024 12:00", "02/08/2024 12:00", "02/08/2024 12:00", "02/08/2024 12:00", "02/08/
7A00BM93303 , pick-up : 10cation_id :107, location_name : North Paris Arena , lineaded_datetime : 02/08/2024 12:00 , actual_datetime : 02/08/2024 12:00 , drop off ":{"location_id":105,"location_name":"South Paris Arena", "intended_datetime":"02/08/2024 12:35", "actual_datetime":"02/08/2024 12:30"}}, {"trip_id":20, "veh_vin":"WUARL48H57K684173", "pick-up":{"location_id":113, "location_name":"Olympic and Paralympic village ", "intended_datetime":"06/08/2024 10:00", "actual_datetime":"06/08/2024 10:00"}, "drop off ":{"location_id":109, "location_name":"Paris La Defen se Arena", "intended_datetime":"06/08/2024 10:25", "actual_datetime":"06/08/2024 10:25"}}]},
  {"_id":2002,"name":"Marie Dupont","licence_num":"34082A789012","no_of_trips":1,"suspended":"N","trips_info":[{"trip_id":10,"veh_vin":"WAUMR4
4E85N069305", "pick-up": "location_id":121, "location_name": "Saint-Quentin-en-Yvelines Velodrome", "intended_datetime": "31/07/2024 17:30", "actu al_datetime": "31/07/2024 17:32"}, "drop off": { "location_id":114, "location_name": "Champions Park", "intended_datetime": "31/07/2024 18:00", "actu al_datetime": "31/07/2024 18:06"}}],
```

```
["_id":2003,"name":"Louis Dubois","licence_num":"45112B654321","no_of_trips":1,"suspended":"N","trips_info":[{"trip_id":4,"veh_vin":"SCBLC31
 £41C410996", "pick-up": { "location id":115, "location name": "Eiffel Tower", "intended datetime": "28/07/2024 12:00", "actual datetime": "28/07/2024
  12:07"}, "drop off": { "location id":120, "location name": "The Basilica of the Sacred Heart of Paris", "intended datetime": "28/07/2024 12:20", "a
ctual datetime": "28/07/2024 12:31"}}]},
 {"_id":2004, "name": "Antoine Lefevre", "licence_num": "670495098765", "no_of_trips": 1, "suspended": "N", "trips_info": [{"trip_id": 6, "veh_vin": "JTEB
 w3EH8A2753607", "pick-up":{"location_id":120,"location_name":"The Basilica of the Sacred Heart of Paris", "intended_datetime":"30/07/2024 15:4
 0", "actual_datetime": "30/07/2024 15:42"}, "drop off":{"location_id":114, "location_name": "Champions Park", "intended_datetime": "30/07/2024 17:0
0", "actual_datetime": "30/07/2024 17:04" }}]},
 {" id":2005, "name": "Sophie Bernard", "licence_num": "89122a345678", "no_of_trips": 1, "suspended": "N", "trips_info": [{"trip_id": 15, "veh_vin": "4T1B
K3DB2BU891397", "pick-up":{ "location_id":117, "location_name": "Tuileries Garden", "intended_datetime": "04/08/2024 16:00", "actual_datetime": "04/08/2024 16:03"}, "drop off":{ "location_id":118, "location_name": "Sainte-Chapelle", "intended_datetime": "04/08/2024 16:05", "actual_datetime": "04/08/2024 16:05", "actual_datetime"
 /08/2024 16:09<sup>*</sup>}}]},
 {"_id":2006, "name": "Arman", "licence_num": "23072b567890", "no_of_trips":4, "suspended": "N", "trips_info": [{"trip_id":5, "veh_vin": "4T1BK3DB2BU891
 397","pick-up":{"location_id":115,"location_name":"Eiffel Tower","intended_datetime":"28/07/2024 12:00","actual_datetime":"28/07/2024 12:05"
 }, "drop off": { "location_id": 120, "location_name": "The Basilica of the Sacred Heart of Paris", "intended_datetime": "28/07/2024 12: 20", "actual_d
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 ,"veh_vin":"YV1952AS4D1408550","pick-up":{"location_id":113,"location_name":"Olympic and Paralympic village","intended_datetime":"05/08/2024
  07:00","actual_datetime":"05/08/2024 07:06"},"drop_off":{"location_id":110,"location_name":"Pierre Mauroy Stadium","intended_datetime":"05/
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 {"_id":2007, "name":"Jean Moreau", "licence_num":"560903234567", "no_of_trips":2, "suspended":"N", "trips_info":[{"trip_id":2, "veh_vin":"1G6DL67A
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al_datetime":"27/07/2024 19:52"}}, {"trip_id":22, "veh_vin":"1G6KD54Y92U557711", "pick-up":{"location_id":113, "location_name":"0lympic and Para
 lympic village", "intended datetime": "08/08/2024 15:00", "actual datetime": "08/08/2024 15:07"}, "drop off": { "location id": 120, "location name": "
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The Basilica of the Sacred Heart of Paris", "intended datetime": "08/08/2024 15:25", "actual_datetime": "08/08/2024 15:35"}}], {"_id":2008, "name": "Isabelle Fournier", "licence_num": "780350987654", "no_of_trips": 1, "suspended": "N", "trips_info": [{"trip_id": 12, "veh_vin": "W AUD2AFD1EN836662", "pick-up": { "location id":107, "location name": "North Paris Arena", "intended datetime": "02/08/2024 12:00", "actual datetime": "02/08/2024 12:00"}, "drop off":{ "location_id":105, "location_name": "South Paris Arena", "intended_datetime": "02/08/2024 12:35", "actual_datetim e":"02/08/2024 12:33"}}], {"_id":2009, "name": "Emilie Michel", "licence_num": "900115876543", "no_of_trips": 1, "suspended": "N", "trips_info": [{"trip_id": 9, "veh_vin": "WAUMR4 4E85N069305", "pick-up": { "location_id":113, "location_name": "Olympic_and_Paralympic_village", "intended_datetime": "31/07/2024 07:20", "actual_da tetime": "31/07/2024 07:30"}, "drop off": { "location_id": 121, "location_name": "Saint-Quentin-en-Yvelines Velodrome", "intended_datetime": "31/07/2 024 08:00", "actual datetime": "31/07/2024 08:13"}}]}, {"_id":2010, "name": "Naoki Fujimoto", "licence_num": "110685765432", "no_of_trips": 2, "suspended": "N", "trips_info": [{"trip_id": 3, "veh_vin": "1D4PU 4GK7BW972165", "pick-up":{"location_id":113,"location_name":"Olympic and Paralympic village", "intended_datetime":"28/07/2024 08:00", "actual_d atetime":"28/07/2024 07:57"}, "drop_off":{"location_id":104,"location_name":"Eiffel Tower Stadium", "intended_datetime":"28/07/2024 08:30", "ac tual_datetime":"28/07/2024 08:28"}},{"trip_id":24,"veh_vin":"3VW1K7AJ8DM593363","pick-up":{"location_id":114,"location_name":"Champions Park ","intended_datetime":"10/08/2024 12:00","actual_datetime":"10/08/2024 12:02"},"drop off":{"location_id":117,"location_name":"Tuileries Gard en", "intended datetime": "10/08/2024 12:20", "actual datetime": "10/08/2024 12:25"}}]}, {"_id":2011, "name": "Mathieu Girard", "licence_num": "22102A456789", "no_of_trips": 2, "suspended": "N", "trips_info": [{"trip_id": 1, "veh_vin": "1G6DL 67A190421039", "pick-up": { "location_id":113, "location_name": "Olympic and Paralympic village", "intended_datetime": "27/07/2024 07:00", "actual_d atetime": "27/07/2024 07:03"}, "drop off": { "location_id": 110, "location_name": "Pierre Mauroy Stadium", "intended_datetime": "27/07/2024 09:25", "a ctual_datetime": "27/07/2024 09:40"}}, {"trip_id":21, "veh_vin": "3GYFNAEY1BS255875", "pick-up": {"location_id":112, "location_name": "Roland Garros Stadium", "intended datetime": "07/08/2024 11:00", "actual_datetime": "07/08/2024 11:00"}, "drop off": { "location_id":111, "location_name": "Porte de La Chapelle Arena", "intended datetime": "07/08/2024 11:20", "actual datetime": "07/08/2024 11:21"}}]}, {"_id":2012, "name": "Mansour", "licence_num": "33022B678901", "no_of_trips": 2, "suspended": "N", "trips_info": [{"trip_id":11, "veh_vin": "1C4SDHCT9FC 613386", "pick-up":{ "location id":112, "location name": "Roland Garros Stadium", "intended datetime": "01/08/2024 14:00", "actual datetime": "01/08 /2024 14:01"}, "drop off":{"location_id":116, "location_name":"Louvre Museum", "intended_datetime":"01/08/2024 14:25", "actual_datetime":"01/08/2024 14:28"}}, {"trip_id":23, "veh_vin":"1D4PU4GK7BW972165", "pick-up":{"location_id":102, "location_name":"Bercy Arena", "intended_datetime":"09 /08/2024 17:35", "actual_datetime":"09/08/2024 17:38"}, "drop off":{"location_id":114, "location_name":"Champions Park", "intended_datetime":"09/08/2024 18:00", "actual_datetime":"09/08/2024 18:05"}}]},

{"_id":2013, "name": "Lei Xiong", "licence_num": "441270890123", "no_of_trips":1, "suspended": "N", "trips_info": [{"trip_id":14, "veh_vin": "5UXFG8C50 BL686231", "pick-up":{ "location_id":103, "location_name": "Champ de Mars Arena", "intended_datetime": "03/08/2024 17:05", "actual_datetime": "03/08 /2024 17:10"}, "drop off": { "location_id":113, "location_name": "Olympic and Paralympic village", "intended_datetime": "03/08/2024 17:30", "actual_ datetime": 03/08/2024 17:36"}}]}, {"_id":2014,"name":"Claire Robert","licence_num":"55052a543210","no_of_trips":1,"suspended":"N","trips_info":[{"trip_id":7,"veh_vin":"4T1BK3 DB2BU891397","pick-up":{"location_id":120,"location_name":"The Basilica of the Sacred Heart of Paris","intended_datetime":"30/07/2024 16:45", "actual_datetime":"30/07/2024 16:45"},"drop off":{"location_id":114,"location_name":"Champions Park","intended_datetime":"30/07/2024 18:00", "actual_datetime":"null}, {"trip_id":100,"veh_vin":"1C4SDHCT9FC614231","pick-up":{"location_id":113,"location_name":"Olympic and Paralympic village","intended_datetime":"30/07/2024 12:30","actual_datetime":"30/07/2024 12:30","drop off":{"location_id":111,"location_name":"Porte d e La Chapelle Arena", "intended datetime": "30/07/2024 14:00", "actual datetime": "30/07/2024 14:15"}}]}, ${"_id": 2015, "name": "Nathalie Renaud", "licence_num": "660725432109", "no_of_trips": 1, "suspended": "N", "trips_info": [{"trip_id": 16, "veh_vin": "3VW}]$ 1K7AJ8DM593363", "pick-up": { "location_id":114, "location_name": "Champions Park", "intended_datetime": "04/08/2024 18:50", "actual_datetime": "04/0 8/2024 18:52"}, "drop off": { "location_id":119, "location_name": "Arc de Triomphe", "intended_datetime": "04/08/2024 19:00", "actual_datetime": "04/ 08/2024 19:03"}}]}, 15 rows selected. SOL> SOL> --============== END RUN =============================== SOL> set echo off

TASK 6 MongoDB Marking

```
// ****PLEASE ENTER YOUR DETAILS BELOW****
// T6-pat-mongo.mongodb.js
// Student ID:35009411
// Student Name: Shuyang Yan
//Comments for your marker:
// Do not add new comments to this playground
// OR modify or remove any of the comments below (items marked with //)
// =======
// Use (connect to) your database - you MUST update xyz001
// with your authcate username
use("syan0170");
// (b)
// PLEASE PLACE REQUIRED MONGODB COMMAND TO CREATE THE COLLECTION HERE
// YOU MAY PICK ANY COLLECTION NAME
// ENSURE that your query is formatted and has a semicolon
// (;) at the end of this answer
// Drop collection
db.driver.drop();
// Create collection and insert documents
db.driver.insertMany([ //
   " id": 2001,
   "name": "Pierre Martin",
   "licence_num": "120501123456",
   "no_of_trips": 3,
   "suspended": "N",
   "trips_info": [
       "trip_id": 1,
       "veh_vin": "qwhqjnsutvdjnfru1",
      "pick-up": {
   "location_id": 101,
         "location_name": "Bordeaux Stadium",
         "intended_datetime": "21/07/2024 09:00",
         "actual datetime": "21/07/2024 09:00"
      √drop off": {
         "location_id": 102,
         "location_name": "Bercy Arena",
         "intended_datetime": "21/07/2024 10:00",
         "actual datetime": "21/07/2024 10:00"
       "trip_id": 18,
       "veh_vin": "hhhhhhhhhhhhhhhhhhh
       "pick-up": {
```

```
"location_id": 109,
      "location_name": "Paris La Defense Arena",
      "intended_datetime": "23/07/2024 14:00",
      "actual_datetime": "23/07/2024 14:00"
    drop off":
      "location_id": 110,
      "location_name": "Pierre Mauroy Stadium",
      "intended_datetime": "23/07/2024 15:00",
      "actual_datetime": "23/07/2024 15:00"
    "trip_id": 20,
    "veh vin": "hhhhhhhhhhhhhhhhhhhhh
    "pick-up": {
      "location_id": 101,
      "location_name": "Bordeaux Stadium",
      "intended_datetime": "22/07/2024 09:00",
      "actual_datetime": "22/07/2024 08:30"
    "drop off":
      "location_id": 103,
      "location_name": "Champ de Mars Arena",
      "intended_datetime": "22/07/2024 10:00",
      "actual_datetime": "22/07/2024 09:30"
"_id": 2002,
"name": "Marie Dupont",
"licence_num": "34082A789012",
"no_of_trips": 2,
"suspended": "N",
"trips_info": [
    "trip_id": 17,
    "veh_vin": "ggggggggggggggggg",
    "pick-up": {
      "location_id": 101,
      "location_name": "Bordeaux Stadium",
      "intended_datetime": "22/07/2024 09:00",
      "actual_datetime": "22/07/2024 09:30"
    "drop off": {
      "location_id": 103,
      "location_name": "Champ de Mars Arena",
      "intended_datetime": "22/07/2024 10:00",
      "actual_datetime": "22/07/2024 10:00"
    "trip_id": 2,
    "veh_vin": "qwhgjnsutvdjnfru1",
```

```
"pick-up": {
      "location_id": 111,
     "location_name": "Porte de La Chapelle Arena",
     "intended_datetime": "21/07/2024 13:00",
     "actual_datetime": "21/07/2024 13:00"
    "drop off": ∤
     "location_id": 113,
     "location_name": "Olympic and Paralympic village",
     "intended_datetime": "21/07/2024 14:30",
      "actual_datetime": "21/07/2024 14:30"
" id": 2003,
"name": "Louis Dubois",
"licence_num": "45112B654321",
"no_of_trips": 2,
"suspended": "N",
"trips_info": [
   "trip_id": 3,
   "veh_vin": "ashqntjfuqnvdhfl2",
    "pick-up": {
      "location_id": 101,
     "location_name": "Bordeaux Stadium",
     "intended_datetime": "21/07/2024 09:00",
     "actual_datetime": "21/07/2024 09:00"
    drop off": {
     "location_id": 102,
     "location_name": "Bercy Arena",
     "intended_datetime": "21/07/2024 10:00",
      "actual_datetime": "21/07/2024 10:00"
    "trip_id": 14,
    "veh_vin": "eeeeeeeeeeeeee7",
    "pick-up": {
     "location_id": 113,
     "location_name": "Olympic and Paralympic village",
     "intended_datetime": "22/07/2024 09:00",
     "actual_datetime": "22/07/2024 09:30"
    "drop off":
     "location_id": 105,
     "location_name": "South Paris Arena",
     "intended_datetime": "22/07/2024 11:00",
      "actual_datetime": "22/07/2024 11:00"
```

```
" id": 2004,
"name": "Antoine Lefevre",
"licence_num": "670495098765",
"no_of_trips": 2,
"suspended": "N",
"trips_info": [
    "trip_id": 10,
    "veh_vin": "cccccccccccccc5",
    "pick-up": {
      "location_id": 102,
     "location_name": "Bercy Arena",
     "intended_datetime": "25/07/2024 14:00",
     "actual datetime": "25/07/2024 14:00"
    drop off": {
     "location_id": 103,
     "location_name": "Champ de Mars Arena",
     "intended_datetime": "25/07/2024 15:00",
      "actual_datetime": "25/07/2024 15:30"
    "trip_id": 4,
    "veh_vin": "ashgntjfugnvdhfl2",
    "pick-up": {
      "location_id": 109,
     "location_name": "Paris La Defense Arena",
     "intended_datetime": "24/07/2024 12:00",
     "actual_datetime": "24/07/2024 12:30"
    "drop off":
     "location_id": 115,
     "location_name": "Eiffel Tower",
     "intended_datetime": "24/07/2024 13:00",
      "actual_datetime": "24/07/2024 13:00"
"_id": 2005,
"name": "Sophie Bernard",
"licence_num": "89122a345678",
"no of trips": 3,
"suspended": "N",
"trips_info": [
   "trip_id": 8,
    "pick-up": {
      "location_id": 108,
      "location_name": "Parc des Princes",
     "intended_datetime": "29/07/2024 11:00",
      "actual_datetime": "29/07/2024 11:00"
```

```
drop off": {
      "location_id": 106,
      "location_name": "La Beaujoire Stadium",
      "intended_datetime": "29/07/2024 12:30",
      "actual_datetime": "29/07/2024 13:00"
    "trip_id": 9,
    "pick-up": {
      "location_id": 104,
      "location_name": "Eiffel Tower Stadium",
      "intended_datetime": "28/07/2024 10:30",
      "actual_datetime": "28/07/2024 10:30"
    "drop off": {
      "location_id": 117,
      "location_name": "Tuileries Garden",
      "intended_datetime": "28/07/2024 11:30",
      "actual_datetime": "28/07/2024 11:30"
    "trip_id": 19,
    "veh_vin": "hhhhhhhhhhhhhhhhhh
    "pick-up": {
      "location_id": 111,
      "location_name": "Porte de La Chapelle Arena",
      "intended_datetime": "24/07/2024 12:30",
      "actual_datetime": "24/07/2024 12:30"
    drop off":
     "location_id": 116,
      "location_name": "Louvre Museum",
      "intended_datetime": "24/07/2024 14:00",
      "actual_datetime": "24/07/2024 14:30"
"_id": 2006,
"name": "Arman",
"licence_num": "23072b567890",
"no_of_trips": 2,
"suspended": "N",
"trips_info": [
    "trip_id": 6,
    "veh_vin": "nsjfwhdbfuydbwsh3",
    "pic\overline{k}-up": {
      "location_id": 104,
      "location_name": "Eiffel Tower Stadium",
      "intended_datetime": "27/07/2024 11:00",
```

```
"actual_datetime": "27/07/2024 11:00"
    drop off": {
     "location_id": 106,
     "location_name": "La Beaujoire Stadium",
     "intended_datetime": "27/07/2024 12:00",
      "actual_datetime": "27/07/2024 12:00"
    "trip_id": 5,
    "veh_vin": "nsjfwhdbfuydbwsh3",
    "pick-up": {
     "location_id": 104,
     "location_name": "Eiffel Tower Stadium",
     "intended_datetime": "26/07/2024 12:00",
     "actual_datetime": "26/07/2024 12:00"
    drop off": {
     "location_id": 106,
     "location_name": "La Beaujoire Stadium",
     "intended_datetime": "26/07/2024 13:00",
      "actual_datetime": "26/07/2024 13:10"
" id": 2007,
"name": "Jean Moreau",
"licence_num": "560903234567",
"no_of_trips": 2,
"suspended": "N",
"trips_info": [
   "trip_id": 7,
    "pick-up": {
      "location_id": 114,
     "location_name": "Champions Park",
     "intended_datetime": "30/07/2024 11:30",
      "actual_datetime": "30/07/2024 11:30"
    drop off": {
     "location_id": 101,
     "location_name": "Bordeaux Stadium",
     "intended_datetime": "30/07/2024 12:30",
     "actual_datetime": "30/07/2024 12:30"
    "trip_id": 16,
    "veh_vin": "fffffffffffffff,",
    "pick-up": {
      "location_id": 107,
     "location_name": "North Paris Arena",
```

```
"intended_datetime": "23/07/2024 13:30",
      "actual_datetime": "23/07/2024 13:30"
    drop off": {
      "location_id": 108,
      "location_name": "Parc des Princes",
      "intended_datetime": "23/07/2024 15:00",
      "actual_datetime": "23/07/2024 14:30"
"_id": 2011,
"name": "Mathieu Girard",
"licence_num": "22102A456789",
"no_of_trips": 1,
"suspended": "N",
"trips_info": [
    "trip_id": 11,
    "veh_vin": "cccccccccccccc5",
    "pick-up": {
      "location_id": 105,
      "location_name": "South Paris Arena",
      "intended_datetime": "25/07/2024 10:00",
      "actual_datetime": "25/07/2024 10:15"
    "drop off": {
      "location id": 102,
      "location_name": "Bercy Arena",
      "intended_datetime": "25/07/2024 12:00",
      "actual_datetime": "25/07/2024 12:00"
"_id": 2013,
"name": "Lei Xiong",
"licence_num": "441270890123",
"no_of_trips": 2,
"suspended": "N",
"trips_info": [
    "trip id": 22,
    "veh_vin": "ddddddddddddddddd",
    "pick-up": {
      "location_id": 118,
      "location_name": "Sainte-Chapelle",
      "intended_datetime": "06/08/2024 12:00",
      "actual datetime": "06/08/2024 12:00"
    drop off": {
      "location_id": 116,
      "location_name": "Louvre Museum",
```

```
"intended_datetime": "06/08/2024 13:00",
     "actual_datetime": "06/08/2024 13:00"
    "trip_id": 12,
   "veh_vin": "cccccccccccccc5",
    "pick-up": {
     "location_id": 106,
      "location_name": "La Beaujoire Stadium",
     "intended datetime": "26/07/2024 11:00",
      "actual_datetime": "26/07/2024 11:00"
    drop off": {
     "location id": 112,
     "location_name": "Roland Garros Stadium",
     "intended_datetime": "26/07/2024 12:30",
      "actual_datetime": "26/07/2024 12:30"
"_id": 2014,
"name": "Claire Robert",
"licence_num": "55052a543210",
"no_of_trips": 2,
"suspended": "N",
"trips_info": [
    "trip_id": 15,
   "veh_vin": "eeeeeeeeeeeeee7",
    "pick-up": {
     "location_id": 114,
     "location_name": "Champions Park",
     "intended_datetime": "24/07/2024 14:00",
      "actual_datetime": "24/07/2024 14:00"
    drop off": {
     "location id": 106,
     "location_name": "La Beaujoire Stadium",
     "intended_datetime": "24/07/2024 17:00",
     "actual_datetime": "24/07/2024 17:00"
    "trip_id": 100,
    "veh_vin": "1C4SDHCT9FC614231",
    "pick-up": {
     "location id": 113,
     "location_name": "Olympic and Paralympic village",
     "intended_datetime": "30/07/2024 12:30",
      "actual_datetime": "30/07/2024 12:30"
    drop off": {
     "location_id": 111,
```

```
"location_name": "Porte de La Chapelle Arena",
          "intended_datetime": "30/07/2024 14:00",
          "actual_datetime": "30/07/2024 14:15"
    " id": 2015,
    "name": "Nathalie Renaud",
    "licence num": "660725432109",
    "no_of_trips": 2,
    "suspended": "N",
    "trips_info": [
        "trip_id": 21,
        "veh_vin": "ddddddddddddddddd",
        "pick-up": {
          "location_id": 115,
          "location_name": "Eiffel Tower",
          "intended_datetime": "05/08/2024 11:00",
          "actual_datetime": "05/08/2024 11:00"
        "drop off": ┤
          "location_id": 116,
          "location_name": "Louvre Museum",
          "intended_datetime": "05/08/2024 12:00",
          "actual_datetime": "05/08/2024 12:00"
        "trip_id": 13,
        "veh_vin": "ddddddddddddddddd",
        "pick-up": {
          "location_id": 112,
          "location_name": "Roland Garros Stadium",
          "intended_datetime": "01/08/2024 13:00",
          "actual_datetime": "01/08/2024 13:00"
        "drop off": {
   "location_id": 105,
          "location_name": "South Paris Arena",
          "intended_datetime": "01/08/2024 14:30",
          "actual_datetime": "01/08/2024 15:00"
}
]);
// List all documents you added
db.driver.find();
// (c)
// PLEASE PLACE REQUIRED MONGODB COMMAND/S FOR THIS PART HERE
// ENSURE that your query is formatted and has a semicolon
```

```
// (;) at the end of this answer
db.driver.find(,
     "$and": [
       "trips_info.drop off.location_name": {
         "$in": ["Champions Park", "Porte de La Chapelle Arena"]
    "name": 1, "licence_num": 1 😿
// (d)
// PLEASE PLACE REQUIRED MONGODB COMMAND/S FOR THIS PART HERE
// ENSURE that your query is formatted and has a semicolon
// (;) at the end of this answer
// Show document before the new trip is added and the driver is suspended
db.driver.find({ "_id": 2004 }); •
// Add new trip and set the driver to suspended
db.driver.updateOne
    "_id": 2004 },
    ^{\prime\prime}$push":{
     "trips_info":
       "trip_id": 30,
       "pick-up": {
         "location_id": 117,
         "location_name": "Tuileries Garden",
         "intended_datetime": "10/08/2024 15:00",
         "actual_datetime": "10/08/2024 15:00"
        drop off":
         "location_id": 118,
         "location_name": "Sainte-Chapelle",
         "intended_datetime": "10/08/2024 16:00",
         "actual_datetime": "10/08/2024 16:00"
db.driver.updateOne({ "_id": 2004 }, { "$set": { "suspended": "Y" } $\sqrt{});
db.driver.updateOne({ "_id": 2004 }, { "$inc": { "no_of_trips": 1 } },);
// Illustrate/confirm changes made
db.driver.find({ "_id": 2004 });
```

```
// Student ID:35009411
// Student Name: Shuyang Yan
>> Task (b) -----
>> Drop collection
false
>> Create collection and insert documents
 acknowledged: true,
 insertedIds: {
   '0': 2001,
   '1': 2002,
   '2': 2003,
   '3': 2004,
   '4': 2005,
   '5': 2006,
   '6': 2007,
   '7': 2011,
   '8': 2013,
   '9': 2014,
   '10': 2015
>> List all documents you added
   _id: 2001,
   name: 'Pierre Martin',
   licence_num: '120501123456',
   no_of_trips: 3,
   suspended: 'N',
   trips_info: [
       trip_id: 1,
       veh_vin: 'qwhgjnsutvdjnfru1',
       'pick-up': -
        location_id: 101,
        location_name: 'Bordeaux Stadium',
        intended_datetime: '21/07/2024 09:00',
        actual_datetime: '21/07/2024 09:00'
       drop off: {
        location_id: 102,
        location_name: 'Bercy Arena',
        intended_datetime: '21/07/2024 10:00',
        actual_datetime: '21/07/2024 10:00'
       trip_id: 18,
       'pick-up': {
        location_id: 109,
        location_name: 'Paris La Defense Arena',
        intended_datetime: '23/07/2024 14:00',
        actual_datetime: '23/07/2024 14:00'
```

```
drop off: {
     location_id: 110,
      location_name: 'Pierre Mauroy Stadium',
      intended_datetime: '23/07/2024 15:00',
     actual_datetime: '23/07/2024 15:00'
    trip_id: 20,
    'pick-up': {
     location_id: 101,
     location_name: 'Bordeaux Stadium',
      intended_datetime: '22/07/2024 09:00',
      actual_datetime: '22/07/2024 08:30'
    drop off': {
     location_id: 103,
     location_name: 'Champ de Mars Arena',
      intended_datetime: '22/07/2024 10:00',
      actual_datetime: '22/07/2024 09:30'
_id: 2002,
name: 'Marie Dupont',
licence_num: '34082A789012',
no_of_trips: 2,
suspended: 'N',
trips_info: [
    trip_id: 17,
    veh_vin: 'gqggggggggggggggg',
    'pick-up':
     location_id: 101,
      location_name: 'Bordeaux Stadium',
      intended_datetime: '22/07/2024 09:00',
     actual_datetime: '22/07/2024 09:30'
    drop off': {
     location_id: 103,
      location_name: 'Champ de Mars Arena',
      intended_datetime: '22/07/2024 10:00',
      actual_datetime: '22/07/2024 10:00'
    trip_id: 2,
    veh_vin: 'qwhgjnsutvdjnfru1',
    'pick-up': {
     location_id: 111,
      location_name: 'Porte de La Chapelle Arena',
      intended_datetime: '21/07/2024 13:00',
```

```
actual_datetime: '21/07/2024 13:00'
    drop off': {
      location_id: 113,
      location_name: 'Olympic and Paralympic village',
      intended_datetime: '21/07/2024 14:30',
      actual_datetime: '21/07/2024 14:30'
_id: 2003,
name: 'Louis Dubois',
licence_num: '45112B654321',
no_of_trips: 2,
suspended: 'N',
trips_info: [
    trip_id: 3,
    veh_vin: 'ashqntjfuqnvdhfl2',
    'pick-up':
      location_id: 101,
      location_name: 'Bordeaux Stadium',
      intended_datetime: '21/07/2024 09:00',
      actual_datetime: '21/07/2024 09:00'
     drop off': {
      location_id: 102,
      location_name: 'Bercy Arena',
      intended_datetime: '21/07/2024 10:00',
      actual_datetime: '21/07/2024 10:00'
    trip_id: 14,
    veh_vin: 'eeeeeeeeeeeeee7',
    'pick-up': {
      location_id: 113,
      location_name: 'Olympic and Paralympic village',
      intended_datetime: '22/07/2024 09:00',
      actual_datetime: '22/07/2024 09:30'
    drop off: {
      location_id: 105,
      location_name: 'South Paris Arena',
      intended_datetime: '22/07/2024 11:00',
      actual_datetime: '22/07/2024 11:00'
_id: 2004,
name: 'Antoine Lefevre',
licence_num: '670495098765',
```

```
no_of_trips: 2,
suspended: 'N',
trips_info: [
    trip_id: 10,
    veh_vin: 'ccccccccccccc5',
    'pick-up':
      location_id: 102,
      location_name: 'Bercy Arena',
      intended_datetime: '25/07/2024 14:00',
      actual_datetime: '25/07/2024 14:00'
    drop off': {
      location_id: 103,
      location_name: 'Champ de Mars Arena',
      intended_datetime: '25/07/2024 15:00',
      actual_datetime: '25/07/2024 15:30'
    trip_id: 4,
    veh_vin: 'ashqntjfuqnvdhfl2',
    'pick-up':
      location_id: 109,
      location_name: 'Paris La Defense Arena',
      intended_datetime: '24/07/2024 12:00',
      actual_datetime: '24/07/2024 12:30'
    'drop off': {
      location_id: 115,
      location_name: 'Eiffel Tower',
      intended_datetime: '24/07/2024 13:00',
      actual_datetime: '24/07/2024 13:00'
_id: 2005,
name: 'Sophie Bernard',
licence_num: '89122a345678',
no_of_trips: 3,
suspended: 'N',
trips_info: [
    trip_id: 8,
    veh_vin: 'bbbbbbbbbbbbbbbb',
    'pick-up':
      location_id: 108,
      location_name: 'Parc des Princes',
      intended_datetime: '29/07/2024 11:00',
      actual_datetime: '29/07/2024 11:00'
    drop off': {
      location_id: 106,
      location_name: 'La Beaujoire Stadium',
```

```
intended_datetime: '29/07/2024 12:30',
     actual_datetime: '29/07/2024 13:00'
   trip_id: 9,
   veh_vin: 'bbbbbbbbbbbbbbbb',
    'pick-up': {
     location_id: 104,
      location_name: 'Eiffel Tower Stadium',
      intended_datetime: '28/07/2024 10:30',
      actual_datetime: '28/07/2024 10:30'
    drop off': {
     location id: 117,
      location_name: 'Tuileries Garden',
      intended_datetime: '28/07/2024 11:30',
     actual_datetime: '28/07/2024 11:30'
    trip_id: 19,
   'pick-up':
     location_id: 111,
      location_name: 'Porte de La Chapelle Arena',
      intended_datetime: '24/07/2024 12:30',
     actual_datetime: '24/07/2024 12:30'
    'drop off':
     location_id: 116,
      location_name: 'Louvre Museum',
      intended_datetime: '24/07/2024 14:00',
     actual_datetime: '24/07/2024 14:30'
_id: 2006,
name: 'Arman',
licence_num: '23072b567890',
no_of_trips: 2,
suspended: 'N',
trips_info: [
    trip_id: 6,
   veh_vin: 'nsjfwhdbfuydbwsh3',
    'pick-up':
     location_id: 104,
      location_name: 'Eiffel Tower Stadium',
      intended_datetime: '27/07/2024 11:00',
      actual_datetime: '27/07/2024 11:00'
    drop off': {
     location_id: 106,
```

```
location_name: 'La Beaujoire Stadium',
      intended_datetime: '27/07/2024 12:00',
      actual_datetime: '27/07/2024 12:00'
    trip_id: 5,
    veh_vin: 'nsjfwhdbfuydbwsh3',
    'pick-up':
      location_id: 104,
      location_name: 'Eiffel Tower Stadium',
      intended_datetime: '26/07/2024 12:00',
      actual_datetime: '26/07/2024 12:00'
     drop off:
      location_id: 106,
      location_name: 'La Beaujoire Stadium',
      intended_datetime: '26/07/2024 13:00',
      actual_datetime: '26/07/2024 13:10'
_id: 2007,
name: 'Jean Moreau',
licence_num: '560903234567',
no_of_trips: 2,
suspended: 'N',
trips_info: [
    trip_id: 7,
    veh_vin: 'bbbbbbbbbbbbbbbb',
    'pick-up': ·
      location_id: 114,
      location_name: 'Champions Park',
      intended_datetime: '30/07/2024 11:30',
      actual_datetime: '30/07/2024 11:30'
     drop off': {
      location_id: 101,
      location_name: 'Bordeaux Stadium',
      intended_datetime: '30/07/2024 12:30',
      actual_datetime: '30/07/2024 12:30'
    trip_id: 16,
    veh_vin: 'fffffffffffffff,
    'pick-up':
      location_id: 107,
      location_name: 'North Paris Arena',
      intended_datetime: '23/07/2024 13:30',
      actual_datetime: '23/07/2024 13:30'
     drop off': {
```

```
location_id: 108,
      location_name: 'Parc des Princes',
      intended_datetime: '23/07/2024 15:00',
      actual_datetime: '23/07/2024 14:30'
_id: 2011,
name: 'Mathieu Girard',
licence_num: '22102A456789',
no_of_trips: 1,
suspended: 'N',
trips_info: [
    trip_id: 11,
    veh_vin: 'cccccccccccccc5',
    'pick-up':
      location_id: 105,
      location_name: 'South Paris Arena',
      intended_datetime: '25/07/2024 10:00',
      actual_datetime: '25/07/2024 10:15'
    drop off': {
      location_id: 102,
      location_name: 'Bercy Arena',
      intended_datetime: '25/07/2024 12:00',
      actual_datetime: '25/07/2024 12:00'
_id: 2013,
name: 'Lei Xiong',
licence_num: '441270890123',
no_of_trips: 2,
suspended: 'N',
trips_info: [
    trip_id: 22,
    veh_vin: 'dddddddddddddddd',
    'pick-up':
      location_id: 118,
      location_name: 'Sainte-Chapelle'
      intended_datetime: '06/08/2024 12:00',
      actual_datetime: '06/08/2024 12:00'
    drop off:
      location_id: 116,
      location_name: 'Louvre Museum',
      intended_datetime: '06/08/2024 13:00',
      actual_datetime: '06/08/2024 13:00'
```

```
trip_id: 12,
    veh_vin: 'ccccccccccccc5',
    'pick-up':
      location_id: 106,
      location_name: 'La Beaujoire Stadium',
      intended_datetime: '26/07/2024 11:00',
      actual_datetime: '26/07/2024 11:00'
    drop off': {
      location_id: 112,
      location_name: 'Roland Garros Stadium',
      intended_datetime: '26/07/2024 12:30',
      actual_datetime: '26/07/2024 12:30'
_id: 2014,
name: 'Claire Robert',
licence_num: '55052a543210',
no_of_trips: 2,
suspended: 'N',
trips_info: [
    trip_id: 15,
    veh_vin: 'eeeeeeeeeeeeee7',
    'pick-up': ·
      location_id: 114,
      location_name: 'Champions Park',
      intended_datetime: '24/07/2024 14:00',
      actual_datetime: '24/07/2024 14:00'
    drop off:
      location_id: 106,
      location_name: 'La Beaujoire Stadium',
      intended_datetime: '24/07/2024 17:00',
      actual_datetime: '24/07/2024 17:00'
    trip_id: 100,
    veh_vin: '1C4SDHCT9FC614231',
    'pick-up':
      location id: 113,
      location_name: 'Olympic and Paralympic village',
      intended_datetime: '30/07/2024 12:30',
      actual_datetime: '30/07/2024 12:30'
    drop off:
      location_id: 111,
      location_name: 'Porte de La Chapelle Arena',
      intended_datetime: '30/07/2024 14:00',
      actual_datetime: '30/07/2024 14:15'
```

```
_id: 2015,
   name: 'Nathalie Renaud',
   licence_num: '660725432109',
   no_of_trips: 2,
   suspended: 'N',
   trips_info: [
       trip_id: 21,
       veh_vin: 'dddddddddddddddd',
        'pick-up': {
         location_id: 115,
         location_name: 'Eiffel Tower',
         intended_datetime: '05/08/2024 11:00',
         actual_datetime: '05/08/2024 11:00'
        'drop off':
         location_id: 116,
         location_name: 'Louvre Museum',
         intended_datetime: '05/08/2024 12:00',
         actual_datetime: '05/08/2024 12:00'
       trip_id: 13,
       veh_vin: 'dddddddddddddddd',
       'pick-up':
         location_id: 112,
         location_name: 'Roland Garros Stadium',
         intended_datetime: '01/08/2024 13:00',
         actual_datetime: '01/08/2024 13:00'
        'drop off':
         location_id: 105,
         location_name: 'South Paris Arena',
         intended_datetime: '01/08/2024 14:30',
         actual_datetime: '01/08/2024 15:00'
Drop off (trips_info.drop off.location_name) matches in student documents: 1
   _id: 2014,
   name: 'Claire Robert',
   licence num: '55052a543210'
>> Task (d) -----
Driver 2004 matches in student documents: 1
```

```
_id: 2004,
    name: 'Antoine Lefevre',
   licence_num: '670495098765',
   no_of_trips: 2,
    suspended: 'N',
    trips_info: [
        trip_id: 10,
        veh_vin: 'ccccccccccccc5',
        'pick-up': {
          location_id: 102,
          location_name: 'Bercy Arena',
          intended_datetime: '25/07/2024 14:00',
          actual_datetime: '25/07/2024 14:00'
        drop off': {
          location_id: 103,
          location_name: 'Champ de Mars Arena',
          intended_datetime: '25/07/2024 15:00',
          actual_datetime: '25/07/2024 15:30'
        trip_id: 4,
        veh_vin: 'ashgntjfugnvdhfl2',
        'pick-up': ·
          location_id: 109,
          location_name: 'Paris La Defense Arena',
          intended_datetime: '24/07/2024 12:00',
          actual_datetime: '24/07/2024 12:30'
        drop off:
          location_id: 115,
          location_name: 'Eiffel Tower',
          intended_datetime: '24/07/2024 13:00',
          actual_datetime: '24/07/2024 13:00'
>> Add new trip and set the driver to suspended
  acknowledged: true,
  insertedId: null,
 matchedCount: 1,
 modifiedCount: 1,
 upsertedCount: 0
  acknowledged: true,
  insertedId: null,
 matchedCount: 1,
 modifiedCount: 1,
```

```
upsertedCount: 0
  acknowledged: true,
  insertedId: null,
 matchedCount: 1,
 modifiedCount: 1,
  upsertedCount: 0
>> Illustrate/confirm changes made
    _id: 2004,
    name: 'Antoine Lefevre',
    licence_num: '670495098765',
    no_of_trips: 3,
    suspended: 'Y',
trips_info: [
        trip_id: 10,
        veh_vin: 'cccccccccccccc5',
        'pick-up':
          location_id: 102,
          location_name: 'Bercy Arena',
          intended_datetime: '25/07/2024 14:00',
          actual_datetime: '25/07/2024 14:00'
         drop off': {
          location_id: 103,
          location_name: 'Champ de Mars Arena',
          intended_datetime: '25/07/2024 15:00',
          actual_datetime: '25/07/2024 15:30'
        trip_id: 4,
        veh_vin: 'ashgntjfuqnvdhfl2',
        'pick-up': {
          location_id: 109,
          location_name: 'Paris La Defense Arena',
          intended_datetime: '24/07/2024 12:00',
          actual_datetime: '24/07/2024 12:30'
         drop off:
          location_id: 115,
          location_name: 'Eiffel Tower',
          intended_datetime: '24/07/2024 13:00',
          actual_datetime: '24/07/2024 13:00'
        trip_id: 30,
        veh_vin: 'bbbbbbbbbbbbbbbb',
        'pick-up': {
          location_id: 117,
          location_name: 'Tuileries Garden',
```