Databases Units

Author: FIT Database Teaching Team

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FIT9132 2024 S2 Assignment 2 SAMPLE SOLUTION

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
SOL> ----- Task 1 Create Tables -----
SOL> @T1-pat-schema.sql
SQL> --*****PLEASE ENTER YOUR DETAILS BELOW*****
SQL> --T1-pat-schema.sql
SOL>
SOL> --Student ID:
SQL> --Student Name: Sample Solution
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
SQL> -- OFFICIAL
SQL> CREATE TABLE official (
       off id
                  NUMBER(4) NOT NULL,
 3
       off_given VARCHAR2(30),
       off_family VARCHAR2(30),
       cr_ioc_code CHAR(3) NOT NULL,
 6
       off cdm
                  NUMBER (4)
 7);
Table OFFICIAL created.
SOL>
SQL> COMMENT ON COLUMN official.off_id IS
        'Identifier for official';
Comment created.
SOL>
SQL> COMMENT ON COLUMN official.off_given IS
       'Officials given name';
Comment created.
SQL> COMMENT ON COLUMN official.off_family IS
       'Officials family name';
Comment created.
SOL>
SQL> COMMENT ON COLUMN official.cr_ioc_code IS
       'IOC country code - identifier';
```

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```
Comment created.
SOL>
SQL> COMMENT ON COLUMN official.off_cdm IS
        'Identifier for official';
Comment created.
SQL> ALTER TABLE official ADD CONSTRAINT official_pk PRIMARY KEY ( off_id );
Table OFFICIAL altered.
SOL>
SOL> -- VEHICLE
SQL> CREATE TABLE vehicle (
    veh_vin CHAR(17) NOT NULL,
        veh_rego CHAR(7) NOT NULL,
veh_year DATE NOT NULL,
veh_curr_odo NUMBER(6) NOT NULL,
  3
  5
  6
        veh_nopassengers NUMBER(2) NOT NULL,
         vm_model_id NUMBER(4) NOT NULL
  8);
Table VEHICLE created.
SQL>
SQL> COMMENT ON COLUMN vehicle.veh_vin IS
        'Identifier for vehicle';
Comment created.
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.
SOL>
SQL> COMMENT ON COLUMN vehicle.veh_curr_odo IS
        'Current odometer reading of vehicle';
Comment created.
SQL>
SQL> COMMENT ON COLUMN vehicle.veh_nopassengers IS
         'Number of passengers vehicle can seat';
Comment created.
```

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```
SQL>
SQL> COMMENT ON COLUMN vehicle.vm_model_id IS
        'Surrogate key added due to the length natural key ';
Comment created.
SQL>
SQL> ALTER TABLE vehicle ADD CONSTRAINT vehicle_pk PRIMARY KEY ( veh_vin );
Table VEHICLE altered.
SOL>
SQL>
SOL> -- TRIP
SQL> CREATE TABLE trip (
        trip_id
                           NUMBER (4) NOT NULL,
        trip_nopassengers NUMBER(2) NOT NULL,
 3
        trip_int_pickupdt DATE NOT NULL,
  5
        trip_act_pickupdt DATE,
  6
        trip_int_dropoffdt DATE NOT NULL,
        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,
        dropoff_locn_id
11
                           NUMBER(3) NOT NULL,
12
        lang_iso_code
                           CHAR(2) NOT NULL,
13
        off_id
                           NUMBER(4) NOT NULL
14);
Table TRIP created.
SOL>
SQL> COMMENT ON COLUMN trip.trip_id IS
        'Identifier for a trip';
Comment created.
SOL>
SQL> COMMENT ON COLUMN trip.trip_nopassengers IS
         'Number of passengers fot the trip';
Comment created.
SQL> COMMENT ON COLUMN trip.trip_int_pickupdt IS
        'Intended pickup date and time';
 2
Comment created.
SOL>
SQL> COMMENT ON COLUMN trip.trip_act_pickupdt IS
         'Trip actual pickup date and time';
Comment created.
SOL>
```

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```
SQL> COMMENT ON COLUMN trip.trip_int_dropoffdt IS
        'Trip intended drop off date and time';
Comment created.
SOL>
SQL> COMMENT ON COLUMN trip.trip_act_dropoffdt IS
        'Trip actural drop off data and time';
Comment created.
SOL>
SQL> COMMENT ON COLUMN trip.veh_vin IS
 2 'Identifier for vehicle';
Comment created.
SQL> COMMENT ON COLUMN trip.driver_id IS
        'Driver identifier';
Comment created.
SQL> COMMENT ON COLUMN trip.pickup_locn_id IS
        'Idenfifier for location';
Comment created.
SQL> COMMENT ON COLUMN trip.dropoff_locn_id IS
 2 'Idenfifier for location';
Comment created.
SQL> COMMENT ON COLUMN trip.lang_iso_code IS
        'ISO639-1 two character language codes - identifier';
Comment created.
SQL>
SQL> COMMENT ON COLUMN trip.off_id IS
        'Identifier for official';
Comment created.
SQL> ALTER TABLE trip ADD CONSTRAINT trip_pk PRIMARY KEY ( trip_id );
Table TRIP altered.
SQL> ALTER TABLE trip ADD CONSTRAINT driver_pickupdt_uq UNIQUE ( driver_id,
                                                                 trip_int_pickupdt );
```

```
Table TRIP altered.
SQL> ALTER TABLE trip ADD CONSTRAINT driver_dropoffdt_uq UNIQUE ( driver_id,
                                                                 trip int dropoffdt );
Table TRIP altered.
SQL> ALTER TABLE trip ADD CONSTRAINT veh_dropoffdt_uq UNIQUE ( veh_vin,
                                                              trip int dropoffdt );
Table TRIP altered.
SOL>
SQL> ALTER TABLE trip ADD CONSTRAINT veh pickupdt_uq UNIQUE ( veh vin,
                                                            trip int pickupdt );
Table TRIP altered.
SOL>
SQL> -- Add all missing FK Constraints below here
SQL> ALTER TABLE official
      ADD CONSTRAINT country_region_official_fk FOREIGN KEY ( cr_ioc_code )
            REFERENCES country_region ( cr_ioc_code );
Table OFFICIAL altered.
SOL>
SQL> ALTER TABLE official
    ADD CONSTRAINT official_offocialcdm_fk FOREIGN KEY ( off_cdm )
        REFERENCES official ( off_id );
Table OFFICIAL altered.
SQL> ALTER TABLE trip
      ADD CONSTRAINT driver_trip_fk FOREIGN KEY ( driver_id )
            REFERENCES driver ( driver_id );
 3
Table TRIP altered.
SOL>
SOL> ALTER TABLE trip
 2 ADD CONSTRAINT language_trip_fk FOREIGN KEY ( lang_iso_code )
          REFERENCES language ( lang iso code );
Table TRIP altered.
SOL>
SQL> ALTER TABLE trip
        ADD CONSTRAINT locpickup_trip_fk FOREIGN KEY ( pickup_locn_id )
            REFERENCES location ( locn_id );
Table TRIP altered.
```

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```
SQL>
SQL> ALTER TABLE trip
       ADD CONSTRAINT dropofflocn_trip_fk FOREIGN KEY ( dropoff_locn_id )
          REFERENCES location ( locn_id );
Table TRIP altered.
SOL>
SQL> ALTER TABLE trip
     ADD CONSTRAINT official_trip_fk FOREIGN KEY ( off_id )
       REFERENCES official ( off id );
 3
Table TRIP altered.
SOL>
SQL> ALTER TABLE trip
    ADD CONSTRAINT vehicle_trip_fk FOREIGN KEY ( veh_vin )
       REFERENCES vehicle ( veh_vin );
Table TRIP altered.
SQL>
SQL> ALTER TABLE vehicle
       ADD CONSTRAINT veh_model_vehicle_fk FOREIGN KEY ( vm_model_id )
           REFERENCES vehicle_model ( vm_model_id );
Table VEHICLE altered.
SOL>
SOL> ----- OFFICIAL ------
SQL> describe OFFICIAL
Name
            Null?
                       Type
            NOT NULL
OFF_ID
                       NUMBER (4)
OFF_GIVEN
                       VARCHAR2(30)
OFF_FAMILY
                       VARCHAR2(30)
CR_IOC_CODE NOT NULL
                       CHAR(3)
OFF_CDM
                       NUMBER (4)
SQL> ----- VEHICLE -----
SOL> describe VEHICLE
Name
                 Null?
                           Type
VEH_VIN
                 NOT NULL CHAR(17)
VEH REGO
                 NOT NULL
                           CHAR(7)
VEH_YEAR
                 NOT NULL
                           DATE
VEH_CURR_ODO
                NOT NULL
                           NUMBER (6)
VEH_NOPASSENGERS NOT NULL
                           NUMBER (2)
                NOT NULL
VM MODEL ID
SQL> ----- TRIP -----
SOL> describe TRIP
                   Null?
Name
                             Type
TRIP ID
                  NOT NULL
                             NUMBER (4)
```

TRIP_NOPASSENGERS	NOT NULL	NUMBER (2)
TRIP_INT_PICKUPDT	NOT NULL	DATE
TRIP_ACT_PICKUPDT		DATE
TRIP_INT_DROPOFFDT	NOT NULL	DATE
TRIP_ACT_DROPOFFDT		DATE
VEH_VIN	NOT NULL	CHAR (17)
DRIVER_ID	NOT NULL	NUMBER (4)
PICKUP_LOCN_ID	NOT NULL	NUMBER (3)
DROPOFF_LOCN_ID	NOT NULL	NUMBER (3)
LANG_ISO_CODE	NOT NULL	CHAR(2)
OFF_ID	NOT NULL	NUMBER (4)
SQL>		
SQL>	CONSTRAINTS	DECLARED
SQL> set echo off		

CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION
OFFICIAL PK	Primary Key	OFFICIAL	
COUNTRY REGION OFFICIAL FK	Foreign Key	OFFICIAL	
OFFICIAL_OFFOCIALCDM_FK	Foreign Key	OFFICIAL	
SYS_C0015628741	Check	OFFICIAL	"CR_IOC_CODE" IS NOT NULL
SYS_C0015628740	Check	OFFICIAL	"OFF_ID" IS NOT NULL
DRIVER_PICKUPDT_UQ	Unique	TRIP	
VEH_PICKUPDT_UQ	Unique	TRIP	
DRIVER_DROPOFFDT_UQ	Unique	TRIP	
VEH_DROPOFFDT_UQ	Unique	TRIP	
TRIP_PK	Primary Key	TRIP	
VEHICLE_TRIP_FK	Foreign Key	TRIP	
OFFICIAL_TRIP_FK	Foreign Key	TRIP	
LOCPICKUP_TRIP_FK	Foreign Key	TRIP	
LANGUAGE_TRIP_FK	Foreign Key	TRIP	
DROPOFFLOCN_TRIP_FK	Foreign Key	TRIP	
DRIVER_TRIP_FK	Foreign Key	TRIP	
SYS_C0015628750	Check	TRIP	"TRIP_ID" IS NOT NULL
SYS_C0015628759	Check	TRIP	"OFF_ID" IS NOT NULL
SYS_C0015628758	Check	TRIP	"LANG_ISO_CODE" IS NOT NULL
SYS_C0015628757	Check	TRIP	"DROPOFF_LOCN_ID" IS NOT NULL
SYS_C0015628756	Check	TRIP	"PICKUP_LOCN_ID" IS NOT NULL
SYS_C0015628755	Check	TRIP	"DRIVER_ID" IS NOT NULL
SYS_C0015628754	Check	TRIP	"VEH_VIN" IS NOT NULL
SYS_C0015628753	Check	TRIP	"TRIP_INT_DROPOFFDT" IS NOT NULL
SYS_C0015628751	Check	TRIP	"TRIP_NOPASSENGERS" IS NOT NULL
SYS_C0015628752	Check	TRIP	"TRIP_INT_PICKUPDT" IS NOT NULL
VEHICLE_PK	Primary Key	VEHICLE	
VEH_MODEL_VEHICLE_FK	Foreign Key	VEHICLE	
SYS_C0015628744	Check	VEHICLE	"VEH_REGO" IS NOT NULL
SYS_C0015628745	Check	VEHICLE	"VEH_YEAR" IS NOT NULL
SYS_C0015628746	Check	VEHICLE	"VEH_CURR_ODO" IS NOT NULL
SYS_C0015628743	Check	VEHICLE	"VEH_VIN" IS NOT NULL
SYS_C0015628747	Check	VEHICLE	"VEH_NOPASSENGERS" IS NOT NULL
SYS_C0015628748	Check	VEHICLE	"VM_MODEL_ID" IS NOT NULL

34 rows selected.

SQL> ----- Task 2 Load Student Data -----SQL> @T2-pat-insert.sql

```
SQL> /****PLEASE ENTER YOUR DETAILS BELOW*****/
SQL> --T2-pat-insert.sql
SQL>
SQL> --Student ID:
SQL> --Student Name: Sample Solution
SQL> /* Comments for your marker:
SQL>
SQL>
SQL>
SOL>*/
SQL>
SQL> -----
SQL> --INSERT INTO official
SOL> -----
SQL> INSERT INTO official (
        off_id,
        off_given,
        off_family,
 5
        cr_ioc_code,
 6
        off_cdm
    ) VALUES (
 9
        'Emily',
10
        'Williams',
11
        'USA',
12
        NULL
13);
1 row inserted.
SQL>
SQL> INSERT INTO official (
        off_id,
 3
        off_given,
        off_family,
        cr_ioc_code,
        off_cdm
    ) VALUES (
        'Michael',
 9
10
        'Johnson',
11
        'USA',
12
13);
1 row inserted.
SQL>
SQL> INSERT INTO official (
        off_id,
        off_given,
 3
        off_family,
        cr_ioc_code,
        off_cdm
    ) VALUES (
```

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```
8
  9
          'Pierre',
 10
          'Martin',
 11
          'FRA',
 12
          NULL
 13
     );
1 row inserted.
SQL>
SQL> INSERT INTO official (
2 off_id,
3 off_given,
          off_family,
cr_ioc_code,
          off_cdm
     ) VALUES (
  8
  9
          'Sophie',
 10
          'Dubois',
 11
          'FRA',
 12
          3
 13 );
1 row inserted.
SQL>
SQL> INSERT INTO official (
          off_id,
          off_given,
          off_family,
          cr_ioc_code,
          off_cdm
     ) VALUES (
  8
          5,
  9
          'James',
 10
          'Smith',
 11
          'AUS',
 12
          NULL
 13);
1 row inserted.
SOL>
SQL> INSERT INTO official (
          off_id,
off_given,
off_family,
  2
  3
          cr_ioc_code,
          off_cdm
     ) VALUES (
  8
          6,
  9
          'Laura',
 10
          'Schmidt',
 11
          'GER',
 12
          NULL
```

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```
13);
1 row inserted.
SQL>
SQL> INSERT INTO official (
 2
         off_id,
         off_given,
         off_family,
         cr_ioc_code,
     off_cdm
) VALUES (
  8
         7,
  9
         'Yui',
 10
         'Suzuki',
 11
         'JPN',
 12
         NULL
 13
     );
1 row inserted.
SQL>
SQL> INSERT INTO official (
 2
         off_id,
  3
         off_given,
         off_family,
         cr_ioc_code, off_cdm
     ) VALUES (
         8,
         'Wei',
  9
 10
         'Zhang',
 11
         'CHN',
 12
         NULL
 13 );
1 row inserted.
SQL>
SQL> INSERT INTO official (
2 off_id,
  3
         off_given,
         cr_ioc_code,
         off_cdm
     ) VALUES (
  8
         'Alejandro',
  9
         'ESP',
 10
         NULL
 11 );
1 row inserted.
SQL>
SQL> INSERT INTO official (
         off_id,
```

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```
off_given,
         cr_ioc_code,
  5
         off_cdm
     ) VALUES (
  6
         10,
'Olivia',
  8
  9
          'CAN',
 10
         NULL
 11 );
1 row inserted.
SQL>
SQL> INSERT INTO official (
         off_id,
         off_given,
         off_family,
         cr_ioc_code,
         off_cdm
     ) VALUES (
  8
         11,
  9
          'Ana',
 10
          'Costa',
 11
          'BRA',
 12
         NULL
13);
1 row inserted.
SQL>
SQL> INSERT INTO official (
         off_id,
         off_family,
cr_ioc_code,
  3
  5
         off_cdm
     ) VALUES (
         12,
  8
          'Batyrova',
  9
          'KAZ<sup>'</sup>,
 10
         NULL
 11 );
1 row inserted.
SQL>
SQL> INSERT INTO official (
         off_id,
off_given,
  3
         off_family,
cr_ioc_code,
         off_cdm
     ) VALUES (
  8
         13,
  9
          'Ahmed',
 10
          'Hassan',
 11
          'EGY',
```

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```
12
        NULL
13);
1 row inserted.
SOL>
SQL> INSERT INTO official (
        off_id,
        off_given,
        off_family,
        cr_ioc_code,
        off_cdm
    ) VALUES (
        14,
 9
        'Oluwaseun',
10
        'Okafor',
11
        'NGR',
12
        NULL
13);
1 row inserted.
SQL> INSERT INTO official (
 2
        off_id,
 3
        off_given,
        off_family,
 5
        cr_ioc_code,
        off_cdm
    ) VALUES (
        15,
 9
        'Chioma',
10
        'Adeyemi',
11
        'NGR',
12
        14
13);
1 row inserted.
SQL> -----
SQL> --INSERT INTO vehicle
SOL> -----
SOL> INSERT INTO vehicle (
 2
        veh_vin,
        veh_rego,
        veh_year,
        veh_curr_odo,
 5
        veh_nopassengers,
        vm_model_id
    ) VALUES (
        'YV1952AS4D1408550',
       'EN900PD',
TO_DATE('2024', 'YYYY'),
10
11
12
        691,
13
        12,
```

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```
14
         1
15);
1 row inserted.
SOL>
SQL> INSERT INTO vehicle (
         veh_vin,
         veh_rego,
         veh_year,
         veh_curr_odo,
         veh_nopassengers,
         vm_model_id
  8
    ) VALUES (
         '4T1BK3DB2BU891397',
 10
         'EI703NU',
 11
         TO_DATE('2024', 'YYYY'),
 12
         80\overline{4},
 13
         12,
 14
         1
 15);
1 row inserted.
SQL>
SOL> INSERT INTO vehicle (
         veh_vin,
  3
         veh_rego,
         veh_year,
         veh_curr_odo,
         veh_nopassengers,
         vm_model_id
  8
    ) VALUES (
         '1G6KD54Y92U557711',
  9
 10
         'FE566BN',
 11
         TO_DATE('2023', 'YYYY'),
 12
         1216,
 13
         20,
 14
         2
15);
1 row inserted.
SQL>
SQL> INSERT INTO vehicle (
         veh_vin,
  3
         veh_rego,
         veh_year,
         veh_curr_odo,
         veh_nopassengers,
         vm_model_id
  8
    ) VALUES (
  9
         'WAUMR44E85N069305',
 10
         'UV023RT',
 11
         TO_DATE('2024', 'YYYY'),
 12
         901,
```

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```
13
        45,
14
         3
15);
1 row inserted.
SQL>
SQL> INSERT INTO vehicle (
        veh_vin,
 3
        veh_rego,
        veh_year,
        veh_curr_odo,
  6
        veh_nopassengers,
        vm_model_id
 8
    ) VALUES (
         '1G6DL67A190421039',
 9
10
         'JR0900B',
11
        TO_DATE('2024', 'YYYY'),
12
        620,
13
         54,
14
         3
15);
1 row inserted.
SOL>
SQL> INSERT INTO vehicle (
        veh_vin,
 3
        veh_rego,
        veh_year,
        veh_curr_odo,
  6
        veh_nopassengers,
        vm_model_id
 8
    ) VALUES (
 9
         'JTEBW3EH8A2753607',
10
         'CP647DB',
        TO_DATE('2023', 'YYYY'),
11
12
         2562,
13
        96,
14
         4
15);
1 row inserted.
SQL>
SQL> INSERT INTO vehicle (
        veh_vin,
 3
        veh_rego,
        veh_year,
        veh_curr_odo,
        veh_nopassengers,
        vm_model_id
 8
    ) VALUES (
 9
         '1G6KE54Y11U434240',
10
         'EI513NS',
11
         TO_DATE('2023', 'YYYY'),
```

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```
12
         1488,
 13
         57,
14
         5
15
    );
1 row inserted.
SOL>
SQL> INSERT INTO vehicle (
         veh_vin,
  3
         veh_rego,
veh_year,
         veh_curr_odo,
  5
         veh_nopassengers,
         vm_model_id
  8
    ) VALUES (
         '5UXFG8C50BL686231',
 10
         'IU820NP',
 11
         TO_DATE('2023', 'YYYY'),
 12
         1442,
 13
         57,
 14
         5
15);
1 row inserted.
SQL>
SQL> INSERT INTO vehicle (
         veh_vin,
  3
         veh_rego,
         veh_year,
         veh_curr_odo,
         veh_nopassengers,
vm_model_id
  8
    ) VALUES (
  9
         '1D4PU4GK7BW972165',
 10
         'SW665ZX',
         TO_DATE('2023', 'YYYYY'),
 11
12
         11\overline{0}1,
 13
         6,
 14
         6
15);
1 row inserted.
SOL>
SQL> INSERT INTO vehicle (
 2
         veh_vin,
  3
         veh_rego,
         veh_year,
         veh_curr_odo,
         veh_nopassengers,
         vm_model_id
  8
     ) VALUES (
          'WUARL48H57K684173',
 10
         'TS405GO',
```

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```
11
        TO_DATE('2024', 'YYYY'),
12
        764,
13
        8,
14
        6
15
    );
1 row inserted.
SQL> INSERT INTO vehicle (
        veh_vin,
        veh_rego,
 3
        veh_year,
        veh_curr_odo,
        veh_nopassengers,
        vm_model_id
 8
    ) VALUES (
 9
         '1C4SDHCT9FC613386',
10
         'EN025RJ',
11
        TO_DATE('2024', 'YYYY'),
12
        707,
13
        6,
        7
14
15);
1 row inserted.
SQL>
SQL> INSERT INTO vehicle (
        veh_vin,
        veh_rego,
        veh_year,
        veh_curr_odo,
        veh_nopassengers,
  6
        vm_model_id
 8
    ) VALUES (
 9
         '3VW1K7AJ8DM593363',
10
         'JS747DD',
        TO_DATE('2023', 'YYYY'),
11
12
        1561,
13
        6,
14
         7
15);
1 row inserted.
SOL>
SQL> INSERT INTO vehicle (
        veh_vin,
 3
        veh_rego,
        veh_year,
        veh_curr_odo,
        veh_nopassengers,
        vm_model_id
    ) VALUES (
         '3GYFNAEY1BS255875',
```

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```
10
        'S0085MR',
        TO_DATE('2023', 'YYYY'),
 11
12
        1574,
13
        8,
 14
        8
15);
1 row inserted.
SQL>
SQL> INSERT INTO vehicle (
        veh_vin,
 3
        veh_rego,
        veh_year,
        veh_curr_odo,
        veh_nopassengers,
        vm_model_id
  8
    ) VALUES (
        'SCBLC31E41C410996',
  9
 10
        'EE827MR',
 11
        TO_DATE('2024', 'YYYY'),
 12
        465,
13
        12,
14
        9
15);
1 row inserted.
SOL>
SQL> INSERT INTO vehicle (
        veh_vin,
 3
        veh_rego,
        veh_year,
        veh_curr_odo,
  5
  6
        veh_nopassengers,
        vm_model_id
    ) VALUES (
        'WAUD2AFD1EN836662',
        'OK876TC',
 10
 11
        TO_DATE('2023', 'YYYY'),
 12
        1000,
13
        12,
14
        9
15);
1 row inserted.
SQL>
SQL> -----
SQL> --INSERT INTO trip
SQL> INSERT INTO trip (
 2
        trip_id,
 3
        trip_nopassengers,
        trip_int_pickupdt,
        trip_act_pickupdt,
```

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```
trip_int_dropoffdt,
         trip_act_dropoffdt,
  8
         veh_vin,
  9
         driver_id,
         pickup_locn_id,
 10
 11
         dropoff_locn_id,
 12
         lang_iso_code,
 13
         off_id
 14
       VALUES (
15
         1,
 16
 17
         TO_DATE('2024-07-27:07:00', 'YYYY-MM-DD:HH24:MI'),
         TO_DATE('2024-07-27:07:03', 'YYYY-MM-DD:HH24:MI'),
 18
         TO_DATE('2024-07-27:09:25', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-07-27:09:40', 'YYYY-MM-DD:HH24:MI'),
 19
 20
 21
         '1G6DL67A190421039',
 22
         2011,
 23
         113,
 24
         110.
 25
         'en',
 26
         14
 27
    );
1 row inserted.
SOL>
SQL> INSERT INTO trip (
         trip_id,
  3
         trip_nopassengers,
         trip_int_pickupdt,
  5
         trip_act_pickupdt,
         trip_int_dropoffdt,
  6
         trip_act_dropoffdt,
  8
         veh_vin,
  9
         driver_id,
 10
         pickup_locn_id,
 11
         dropoff_locn_id,
 12
         lang_iso_code,
         off_id
 13
       VALUES (
 14
 15
         2,
16
         50,
 17
         TO_DATE('2024-07-27:17:00', 'YYYY-MM-DD:HH24:MI'),
 18
         TO_DATE('2024-07-27:17:01', 'YYYY-MM-DD:HH24:MI'),
 19
         TO_DATE('2024-07-27:19:40', 'YYYY-MM-DD:HH24:MI'),
 20
         TO_DATE('2024-07-27:19:52', 'YYYY-MM-DD:HH24:MI'),
 21
         '1G6DL67A190421039',
 22
         2007,
 23
         110,
 24
         113,
 25
         'en',
 26
         14
 27
     );
```

1 row inserted.

```
SQL>
SQL> INSERT INTO trip (
          trip_id,
  3
          trip_nopassengers,
          trip_int_pickupdt,
  5
          trip_act_pickupdt,
  6
          trip_int_dropoffdt,
          trip_act_dropoffdt,
  8
          veh_vin,
          driver_id,
  9
 10
          pickup_locn_id,
dropoff_locn_id,
 11
 12
          lang_iso_code,
 13
          off_id
 14
     ) VALUES (
 15
          3,
 16
 17
          TO_DATE('2024-07-28:08:00', 'YYYY-MM-DD:HH24:MI'),
          TO_DATE('2024-07-28:07:57', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-07-28:08:30', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-07-28:08:28', 'YYYY-MM-DD:HH24:MI'),
 18
 19
 20
 21
          '1D4PU4GK7BW972165',
 22
          2010,
 23
          113,
 24
          104.
 25
          'ja',
 26
 27
     );
1 row inserted.
SOL>
SQL> INSERT INTO trip (
          trip_id,
  3
          trip_nopassengers,
          trip_int_pickupdt,
  4
  5
          trip_act_pickupdt,
          trip_int_dropoffdt,
          trip_act_dropoffdt,
  8
          veh_vin,
          driver_id,
  9
 10
          pickup_locn_id,
 11
          dropoff_locn_id,
 12
          lang_iso_code,
 13
          off_id
 14
     ) VALUES (
 15
 16
 17
          TO_DATE('2024-07-28:12:00', 'YYYY-MM-DD:HH24:MI'),
          TO_DATE('2024-07-28:12:07', 'YYYY-MM-DD:HH24:MI'),
 18
 19
          TO_DATE('2024-07-28:12:20', 'YYYY-MM-DD:HH24:MI'),
 20
          TO_DATE('2024-07-28:12:31', 'YYYY-MM-DD:HH24:MI'),
 21
          'SCBLC31E41C410996',
 22
          2003,
 23
          115,
 24
          120,
```

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```
25
          'en',
 26
          5
 27
     );
1 row inserted.
SQL>
SQL> INSERT INTO trip (
          trip_id,
  3
          trip_nopassengers,
          trip_int_pickupdt,
trip_act_pickupdt,
  5
          trip_int_dropoffdt,
  6
          trip_act_dropoffdt,
  8
          veh_vin,
  9
          driver_id,
 10
          pickup_locn_id,
 11
          dropoff_locn_id,
 12
          lang_iso_code,
 13
          off_id
 14
     ) VALUES (
 15
          5,
 16
17
          TO_DATE('2024-07-28:12:00', 'YYYY-MM-DD:HH24:MI'),
          TO_DATE('2024-07-28:12:05', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-07-28:12:20', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-07-28:12:30', 'YYYY-MM-DD:HH24:MI'),
 18
 19
 20
 21
          '4T1BK3DB2BU891397',
 22
          2006,
 23
          115,
 24
          120,
 25
          'en',
 26
 27
     );
1 row inserted.
SQL>
SQL> INSERT INTO trip (
          trip_id,
  3
          trip_nopassengers,
          trip_int_pickupdt,
          trip_act_pickupdt,
          trip_int_dropoffdt,
          trip_act_dropoffdt,
  8
          veh vin,
          driver_id,
  9
 10
          pickup_locn_id,
 11
          dropoff_locn_id,
 12
          lang_iso_code,
 13
          off_id
 14
       VALUES (
 15
          6,
 16
 17
          TO_DATE('2024-07-30:15:40', 'YYYY-MM-DD:HH24:MI'),
 18
          TO_DATE('2024-07-30:15:42', 'YYYY-MM-DD:HH24:MI'),
```

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```
19
         TO_DATE('2024-07-30:17:00', 'YYYY-MM-DD:HH24:MI'),
 20
         TO_DATE('2024-07-30:17:04', 'YYYY-MM-DD:HH24:MI'),
 21
         'JTEBW3EH8A2753607',
 22
         2004,
 23
         120,
 24
         114,
 25
         'pt',
 26
         11
 27
     );
1 row inserted.
SQL>
SQL> INSERT INTO trip (
         trip_id,
         trip_nopassengers,
         trip_int_pickupdt,
  5
         trip_act_pickupdt,
         trip_int_dropoffdt,
  6
         trip_act_dropoffdt,
  8
         veh_vin,
  9
         driver_id,
 10
         pickup_locn_id,
         dropoff_locn_id,
 11
12
         lang_iso_code,
 13
         off_id
 14
       VALUES (
         7,
15
16
         10,
         TO_DATE('2024-07-30:16:45', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-07-30:16:45', 'YYYY-MM-DD:HH24:MI'),
17
 18
         TO_DATE('2024-07-30:18:00', 'YYYY-MM-DD:HH24:MI'),
 19
 20
         NULL,
 21
         '4T1BK3DB2BU891397',
 22
         2014,
 23
         120,
 24
         114.
 25
          'en',
 26
27
     );
1 row inserted.
SOL>
SQL> INSERT INTO trip (
  2
         trip id,
         trip_nopassengers,
  3
         trip_int_pickupdt,
  5
         trip_act_pickupdt,
  6
         trip_int_dropoffdt,
         trip_act_dropoffdt,
  8
         veh_vin,
  9
         driver_id,
         pickup_locn_id,
dropoff_locn_id,
 10
 11
 12
         lang_iso_code,
```

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```
13
         off_id
      VALUES (
 15
16
         10,
 17
         TO_DATE('2024-07-30:22:30', 'YYYY-MM-DD:HH24:MI'),
 18
 19
         TO_DATE('2024-07-30:23:30', 'YYYY-MM-DD:HH24:MI'),
 20
 21
         '4T1BK3DB2BU891397',
 22
         2014,
 23
         114,
 24
         113,
 25
         'en',
 26
         5
 27
    );
1 row inserted.
SOL>
SQL> INSERT INTO trip (
         trip_id,
  3
         trip_nopassengers,
         trip_int_pickupdt,
  5
         trip_act_pickupdt,
  6
         trip_int_dropoffdt,
         trip_act_dropoffdt,
  8
         veh_vin,
  9
         driver_id,
 10
         pickup_locn_id,
 11
         dropoff_locn_id,
 12
         lang_iso_code,
         off_id
 13
 14
      VALUES (
 15
         9,
 16
         TO_DATE('2024-07-31:07:20', 'YYYY-MM-DD:HH24:MI'),
 17
 18
         TO_DATE('2024-07-31:07:30', 'YYYY-MM-DD:HH24:MI'),
 19
         TO_DATE('2024-07-31:08:00', 'YYYY-MM-DD:HH24:MI'),
 20
         TO_DATE('2024-07-31:08:13', 'YYYY-MM-DD:HH24:MI'),
 21
         'WAUMR44E85N069305',
 22
         2009,
 23
         113,
 24
         121,
 25
         'en',
 26
         10
 27
    );
1 row inserted.
SOL>
SQL> INSERT INTO trip (
         trip_id,
  3
         trip_nopassengers,
         trip_int_pickupdt,
  5
         trip_act_pickupdt,
         trip_int_dropoffdt,
```

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```
trip_act_dropoffdt,
  8
          veh_vin,
  9
          driver_id,
 10
          pickup_locn_id,
 11
          dropoff_locn_id,
 12
          lang_iso_code,
 13
          off_id
 14
     ) VALUES (
 15
          10,
16
          25,
          TO_DATE('2024-07-31:17:30', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-07-31:17:32', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-07-31:18:00', 'YYYY-MM-DD:HH24:MI'),
 17
 18
 19
 20
          TO_DATE('2024-07-31:18:06', 'YYYY-MM-DD:HH24:MI'),
 21
          'WAUMR44E85N069305',
 22
          2002,
          121,
 23
 24
          114,
 25
          'en',
 26
          10
 27
     );
1 row inserted.
SQL>
SQL> INSERT INTO trip (
  2
          trip_id,
  3
          trip_nopassengers,
  4
          trip_int_pickupdt,
  5
          trip_act_pickupdt,
  6
          trip_int_dropoffdt,
          trip_act_dropoffdt,
  8
          veh_vin,
          driver_id,
  9
 10
          pickup_locn_id,
          dropoff_locn_id,
 11
 12
          lang_iso_code,
 13
          off_id
14
       VALUES (
 15
          11,
 16
 17
          TO_DATE('2024-08-01:14:00', 'YYYY-MM-DD:HH24:MI'),
          TO_DATE('2024-08-01:14:01', 'YYYY-MM-DD:HH24:MI'),
 18
 19
          TO_DATE('2024-08-01:14:25', 'YYYY-MM-DD:HH24:MI'),
          TO_DATE('2024-08-01:14:28', 'YYYY-MM-DD:HH24:MI'),
 20
 21
          '1C4SDHCT9FC613386',
 22
          2012,
 23
          112,
 24
          116,
 25
          'ar',
 26
          13
 27
     );
1 row inserted.
```

SQL>

```
SQL> INSERT INTO trip (
          trip_id,
  3
          trip_nopassengers,
          trip_int_pickupdt,
  5
          trip_act_pickupdt,
          trip_int_dropoffdt,
  6
          trip_act_dropoffdt,
  8
          veh_vin,
  9
          driver_id,
 10
          pickup_locn_id,
 11
          dropoff_locn_id,
 12
          lang_iso_code,
 13
          off_id
 14
       VALUES (
 15
          12,
 16
 17
          TO_DATE('2024-08-02:12:00', 'YYYY-MM-DD:HH24:MI'),
          TO_DATE('2024-08-02:12:00', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-02:12:35', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-02:12:33', 'YYYY-MM-DD:HH24:MI'),
 18
 19
 20
 21
          'WAUD2AFD1EN836662',
 22
          2008,
 23
          107,
 24
          105,
 25
          'fr',
 26
 27
     );
1 row inserted.
SQL>
SQL> INSERT INTO trip (
          trip_id,
  3
          trip_nopassengers,
          trip_int_pickupdt,
  5
          trip_act_pickupdt,
          trip_int_dropoffdt,
          trip_act_dropoffdt,
  8
          veh_vin,
  9
          driver id,
 10
          pickup_locn_id,
 11
          dropoff_locn_id,
 12
          lang_iso_code,
 13
          off id
 14
       VALUES (
 15
          13,
 16
 17
          TO_DATE('2024-08-02:12:00', 'YYYY-MM-DD:HH24:MI'),
          TO_DATE('2024-08-02:12:00', 'YYYY-MM-DD:HH24:MI'),
 18
          TO_DATE('2024-08-02:12:35', 'YYYY-MM-DD:HH24:MI'),
 19
 20
          TO_DATE('2024-08-02:12:30', 'YYYY-MM-DD:HH24:MI'),
 21
          '3VW1K7AJ8DM593363',
 22
          2001,
 23
          107,
 24
          105,
 25
          'fr',
```

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26

```
26
           3
 27 );
1 row inserted.
SOL>
SQL> INSERT INTO trip (
           trip_id,
  3
           trip_nopassengers,
           trip_int_pickupdt,
           trip_act_pickupdt,
trip_int_dropoffdt,
           trip_act_dropoffdt,
  8
           veh_vin,
  9
           driver id,
 10
           pickup_locn_id,
 11
           dropoff_locn_id,
 12
           lang_iso_code,
           off_id
 13
 14
      ) VALUES (
 15
           14,
 16
 17
           TO_DATE('2024-08-03:17:05', 'YYYY-MM-DD:HH24:MI'),
           TO_DATE('2024-08-03:17:10', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-03:17:30', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-03:17:36', 'YYYY-MM-DD:HH24:MI'),
 18
 19
 20
 21
            '5UXFG8C50BL686231',
 22
           2013,
 23
           103,
 24
           113.
 25
           'zh',
 26
           8
 27
      );
1 row inserted.
SQL>
SQL> INSERT INTO trip (
  2
           trip_id,
  3
           trip_nopassengers,
           trip_int_pickupdt,
  5
           trip_act_pickupdt,
           trip_int_dropoffdt,
           trip_act_dropoffdt,
  8
           veh_vin,
  9
           driver_id,
           pickup_locn_id,
 10
 11
           dropoff_locn_id,
 12
           lang_iso_code,
 13
           off id
 14
        VALUES (
 15
           15,
 16
           TO_DATE('2024-08-04:16:00', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-04:16:03', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-04:16:05', 'YYYY-MM-DD:HH24:MI'),
 17
 18
 19
```

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```
20
         TO_DATE('2024-08-04:16:09', 'YYYY-MM-DD:HH24:MI'),
 21
         '4T1BK3DB2BU891397',
 22
         2005,
 23
         117,
 24
         118,
         'es',
 25
 26
         9
 27 );
1 row inserted.
SOL>
SQL> INSERT INTO trip (
         trip_id,
  3
         trip nopassengers,
         trip_int_pickupdt,
  5
         trip_act_pickupdt,
  6
         trip_int_dropoffdt,
         trip_act_dropoffdt,
  8
         veh_vin,
  9
         driver_id,
 10
         pickup_locn_id,
 11
         dropoff_locn_id,
12
         lang_iso_code,
13
         off_id
 14
     ) VALUES (
 15
         16,
16
         5,
17
         TO_DATE('2024-08-04:18:50', 'YYYY-MM-DD:HH24:MI'),
         TO_DATE('2024-08-04:18:52', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-04:19:00', 'YYYY-MM-DD:HH24:MI'),
 18
 19
 20
         TO_DATE('2024-08-04:19:03', 'YYYY-MM-DD:HH24:MI'),
 21
         '3VW1K7AJ8DM593363',
 22
         2015,
 23
         114,
 24
         119,
 25
         'pt',
 26
         11
 27
     );
1 row inserted.
SOL>
SQL> INSERT INTO trip (
 2
         trip_id,
  3
         trip nopassengers,
         trip_int_pickupdt,
         trip_act_pickupdt,
  5
         trip_int_dropoffdt,
  6
         trip_act_dropoffdt,
  8
         veh_vin,
  9
         driver_id,
 10
         pickup_locn_id,
         dropoff_locn_id,
 11
 12
         lang_iso_code,
 13
         off_id
```

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```
14
    ) VALUES (
 15
          17,
 16
          10,
 17
          TO_DATE('2024-08-05:07:00', 'YYYY-MM-DD:HH24:MI'),
          TO_DATE('2024-08-05:07:06', 'YYYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-05:09:30', 'YYYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-05:09:40', 'YYYY-MM-DD:HH24:MI'),
 18
 19
 20
 21
          'YV1952AS4D1408550',
 22
          2006,
 23
          113,
 24
          110,
 25
          'kk',
 26
          12
 27
     );
1 row inserted.
SOL>
SQL> INSERT INTO trip (
          trip_id,
  3
          trip_nopassengers,
          trip_int_pickupdt,
  5
          trip_act_pickupdt,
          trip_int_dropoffdt,
          trip_act_dropoffdt,
  8
          veh_vin,
          driver_id,
  9
 10
          pickup_locn_id,
 11
          dropoff_locn_id,
 12
          lang_iso_code,
 13
          off_id
 14
     ) VALUES (
 15
          18,
 16
          10,
 17
          TO_DATE('2024-08-05:15:00', 'YYYY-MM-DD:HH24:MI'),
          TO_DATE('2024-08-05:14:55', 'YYYY-MM-DD:HH24:MI'),
 18
          TO_DATE('2024-08-05:18:25', 'YYYY-MM-DD:HH24:MI'),
 19
 20
          TO_DATE('2024-08-05:18:22', 'YYYY-MM-DD:HH24:MI'),
 21
          'YV1952AS4D1408550',
 22
          2006,
 23
          110,
 24
          117,
 25
          'kk',
 26
          12
 27
     );
1 row inserted.
SOL>
SQL> INSERT INTO trip (
          trip_id,
  3
          trip_nopassengers,
          trip_int_pickupdt,
          trip_act_pickupdt,
          trip_int_dropoffdt,
          trip_act_dropoffdt,
```

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```
8
           veh_vin,
  9
           driver_id,
 10
           pickup_locn_id,
           dropoff_locn_id,
 11
 12
           lang_iso_code,
 13
           off_id
 14
     ) VALUES (
 15
           19,
 16
 17
           TO_DATE('2024-08-05:19:45', 'YYYY-MM-DD:HH24:MI'),
           TO_DATE('2024-08-05:19:50', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-05:20:00', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-05:20:06', 'YYYY-MM-DD:HH24:MI'),
 18
 19
 20
 21
           'YV1952AS4D1408550',
 22
           2006,
 23
           117,
 24
           115,
 25
           'kk',
 26
           12
 27
     );
1 row inserted.
SQL>
SQL> INSERT INTO trip (
           trip id,
  3
           trip_nopassengers,
           trip_int_pickupdt,
           trip_act_pickupdt,
           trip_int_dropoffdt,
           trip_act_dropoffdt,
  8
           veh_vin,
  9
           driver_id,
 10
           pickup_locn_id,
 11
           dropoff_locn_id,
 12
           lang_iso_code,
 13
           off_id
 14
        VALUES (
           20,
 15
           7,
TO_DATE('2024-08-06:10:00', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-06:10:00', 'YYYY-MM-DD:HH24:MI'),
 16
 17
 18
           TO_DATE('2024-08-06:10:25', 'YYYY-MM-DD:HH24:MI'), TO_DATE('2024-08-06:10:25', 'YYYY-MM-DD:HH24:MI'),
 19
 20
 21
           'WUARL48H57K684173',
 22
           2001,
 23
           113,
 24
           109,
 25
           'de',
 26
           6
 27
     );
1 row inserted.
SOL>
SQL> INSERT INTO trip (
```

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```
trip_id,
            trip_nopassengers,
            trip_int_pickupdt,
  5
            trip_act_pickupdt,
            trip_int_dropoffdt,
  6
            trip_act_dropoffdt,
  8
            veh_vin,
  9
            driver id,
 10
            pickup_locn_id,
            dropoff_locn_id,
 11
 12
            lang_iso_code,
 13
            off_{id}
 14
         VALUES (
 15
            21,
 16
 17
            TO_DATE('2024-08-07:11:00', 'YYYY-MM-DD:HH24:MI'),
            TO_DATE('2024-08-07:11:00', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-07:11:20', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-07:11:21', 'YYYY-MM-DD:HH24:MI'),
 18
 19
 20
 21
            '3GYFNAEY1BS255875',
 22
            2011,
 23
            112,
 24
            111,
 25
            'fr',
 26
 27
      );
1 row inserted.
SOL>
SQL> INSERT INTO trip (
            trip_id,
            trip_nopassengers,
  3
            trip_int_pickupdt,
  5
            trip_act_pickupdt,
            trip_int_dropoffdt,
  6
            trip_act_dropoffdt,
  8
            veh_vin,
  9
            driver_id,
            pickup_locn_id,
dropoff_locn_id,
 10
 11
 12
            lang_iso_code,
 13
            off_id
 14
         VALUES (
 15
            22.
 16
            TO_DATE('2024-08-08:15:00', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-08:15:07', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-08:15:25', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-08:15:35', 'YYYY-MM-DD:HH24:MI'),
 17
 18
 19
 20
 21
            '1G6KD54Y92U557711',
 22
            2007,
 23
            113,
 24
            120,
 25
            'en',
 26
            1
```

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```
27 );
1 row inserted.
SOL>
SQL> INSERT INTO trip (
  2
          trip_id,
  3
          trip_nopassengers,
          trip_int_pickupdt,
  5
          trip_act_pickupdt,
          trip_int_dropoffdt,
  6
          trip_act_dropoffdt,
  8
          veh_vin,
  9
          driver_id,
 10
          pickup_locn_id,
 11
          dropoff_locn_id,
 12
          lang_iso_code,
 13
          off_id
 14
       VALUES (
 15
          23,
 16
 17
          TO_DATE('2024-08-09:17:35', 'YYYY-MM-DD:HH24:MI'),
          TO_DATE('2024-08-09:17:38', 'YYYY-MM-DD:HH24:MI'),
 18
 19
          TO_DATE('2024-08-09:18:00', 'YYYY-MM-DD:HH24:MI'),
          TO_DATE('2024-08-09:18:05', 'YYYY-MM-DD:HH24:MI'),
 20
 21
          '1D4PU4GK7BW972165',
 22
          2012,
 23
          102,
 24
          114,
 25
          'ar',
 26
          13
 27
     );
1 row inserted.
SQL>
SQL> INSERT INTO trip (
          trip_id,
  3
          trip_nopassengers,
          trip_int_pickupdt,
  5
          trip_act_pickupdt,
          trip_int_dropoffdt,
          trip_act_dropoffdt,
          veh_vin,
  9
          driver_id,
          pickup_locn_id,
dropoff_locn_id,
 10
 11
 12
          lang_iso_code,
 13
          off_id
 14
     ) VALUES (
 15
          24,
 16
 17
          TO_DATE('2024-08-10:12:00', 'YYYY-MM-DD:HH24:MI'),
          TO_DATE('2024-08-10:12:02', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-10:12:20', 'YYYY-MM-DD:HH24:MI'),
TO_DATE('2024-08-10:12:25', 'YYYY-MM-DD:HH24:MI'),
 18
 19
 20
```

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```
21
        '3VW1K7AJ8DM593363',
 22
        2010,
 23
        114,
 24
        117,
25
        'ja',
7
 26
 27
    );
1 row inserted.
SQL>
SQL> COMMIT;
Commit complete.
SQL>
SQL> set echo on
SQL> -- Check INSERT Count
SOL> -----
SQL> set echo off
TableLoaded
                                      COUNT(*)
1. OFFICIAL Rows (10 required):
                                            15
2. VEHICLE Rows (10 required):
                                            15
3. TRIP Rows(20 required):
                                            24
SQL> -- EXPLICIT checks
SOL> --
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
        5 James
                      Smith
                                    AUS
      11 Ana
                      Costa
                                    BRA
      10 Olivia
                                    CAN
       8 Wei
                      Zhang
                                    CHN
      13 Ahmed
                      Hassan
                                    EGY
       9 Alejandro
                                    ESP
        3 Pierre
                      Martin
                                    FRA
                                                            3
       4 Sophie
                      Dubois
                                    FRA
                      Schmidt
                                    GER
       6 Laura
       7 Yui
                      Suzuki
                                    JPN
      12
                      Batyrova
                                    KAZ
      14 Oluwaseun
                      Okafor
                                    NGR
                                                           14
      15 Chioma
                      Adeyemi
                                    NGR
       1 Emily
                      Williams
                                    USA
       2 Michael
                      Johnson
                                    USA
                                                            1
15 rows selected.
```

SQL> -- VEHICLE

SQL> set echo off

VEH_VIN	VEH_REGO	VEH_YEAR	VEH_CURR_ODO	VEH_NOPASSENGERS	VM_MODEL_ID
4T1BK3DB2BU891397	EI703NU	2024	804		
YV1952AS4D1408550	EN900PD	2024	691	12	1
1G6KD54Y92U557711	FE566BN	2023	1216	20	2
1G6DL67A190421039	JR0900B	2024	620	54	3
WAUMR44E85N069305	UV023RT	2024	901	45	3
JTEBW3EH8A2753607	CP647DB	2023	2562	96	4
1G6KE54Y11U434240	EI513NS	2023	1488	57	5
5UXFG8C50BL686231	IU820NP	2023	1442	57	5
1D4PU4GK7BW972165	SW665ZX	2023	1101	6	6
WUARL48H57K684173	TS405GO	2024	764	8	6
1C4SDHCT9FC613386	EN025RJ	2024	707	6	7
3VW1K7AJ8DM593363	JS747DD	2023	1561	6	7
3GYFNAEY1BS255875	SO085MR	2023	1574	8	8
SCBLC31E41C410996	EE827MR	2024	465	12	9
WAUD2AFD1EN836662	OK876TC	2023	1000	12	9

15 rows selected.

SQL> -- TRIP SQL> set echo off

TRIP_ID RIVER_ID	TRIP_NOPASSEN PICKUP_LOCN_ID	IGERS INTENDED_PICKUPDT DROPOFF_LOCN_ID LANG_	ACTUAL_PICKUPDT _ISO_CODE OFF_ID	INTENDED_DROPOFFDT	ACTUAL_DROPOFFDT	VEH_VIN	D
	112	50 27/07/2024 07:00	27/07/2024 07:03	27/07/2024 09:25	27/07/2024 09:40	1G6DL67A190421039	
2011	113	110 en 50 27/07/2024 17:00	27/07/2024 17:01	27/07/2024 19:40	27/07/2024 19:52	1G6DL67A190421039	
2007	110	113 en	27/07/2024 17:01		27/07/2024 19:52	1G0DL0/A190421039	
3	110	6 28/07/2024 08:00	28/07/2024 07:57	28/07/2024 08:30	28/07/2024 08:28	1D4PU4GK7BW972165	
2010	113	104 ja	7				
4		10 28/07/2024 12:00	28/07/2024 12:07	28/07/2024 12:20	28/07/2024 12:31	SCBLC31E41C410996	
2003	115	120 en	5				
5		10 28/07/2024 12:00	28/07/2024 12:05	28/07/2024 12:20	28/07/2024 12:30	4T1BK3DB2BU891397	
2006	115	120 en	5		20/05/0004 15-04	TERRITOR OF 5 2 COF	
6 2004	120	80 30/07/2024 15:40	30/07/2024 15:42 11	30/07/2024 17:00	30/07/2024 17:04	JTEBW3EH8A2753607	
2004	120	114 pt 10 30/07/2024 16:45	30/07/2024 16:45	30/07/2024 18:00		4T1BK3DB2BU891397	
2014	120	10 30/07/2024 10:43 114 en	50/07/2024 10:45			411BK3DB2B0091397	
8	120	10 30/07/2024 22:30	3	30/07/2024 23:30		4T1BK3DB2BU891397	
2014	114	113 en	5				
9		25 31/07/2024 07:20	31/07/2024 07:30	31/07/2024 08:00	31/07/2024 08:13	WAUMR44E85N069305	
2009	113	121 en	10				
10		25 31/07/2024 17:30	31/07/2024 17:32	31/07/2024 18:00	31/07/2024 18:06	WAUMR44E85N069305	
2002	121	114 en	10		01/00/2024 14.20	1.G.4.GDU.GE0.EG.(1.2.2.0.C	
11 2012	112	4 01/08/2024 14:00 116 ar	01/08/2024 14:01	01/08/2024 14:25	01/08/2024 14:28	1C4SDHCT9FC613386	
12	112	12 02/08/2024 12:00	02/08/2024 12:00	02/08/2024 12:35	02/08/2024 12:33	WAUD2AFD1EN836662	
2008	107	12 02/08/2024 12:00 105 fr	02/08/2024 12:00		02/00/2024 12:33	WAODZAFDIENOSOOOZ	
13	10,	5 02/08/2024 12:00	02/08/2024 12:00	02/08/2024 12:35	02/08/2024 12:30	3VW1K7AJ8DM593363	
2001	107	105 fr	3				
14		48 03/08/2024 17:05	03/08/2024 17:10	03/08/2024 17:30	03/08/2024 17:36	5UXFG8C50BL686231	

2013	103	113 zh	8		
15		10 04/08/2024 16:00	04/08/2024 16:03 04/08/2024 16:05	04/08/2024 16:09	4T1BK3DB2BU891397
2005	117	118 es	9		
16		5 04/08/2024 18:50	04/08/2024 18:52 04/08/2024 19:00	04/08/2024 19:03	3VW1K7AJ8DM593363
2015	114	119 pt	11		
17		10 05/08/2024 07:00	05/08/2024 07:06	05/08/2024 09:40	YV1952AS4D1408550
2006	113	110 kk	12		
18		10 05/08/2024 15:00	05/08/2024 14:55	05/08/2024 18:22	YV1952AS4D1408550
2006	110	117 kk	12		
19		10 05/08/2024 19:45	05/08/2024 19:50	05/08/2024 20:06	YV1952AS4D1408550
2006	117	115 kk	12		
20		7 06/08/2024 10:00	06/08/2024 10:00 06/08/2024 10:25	06/08/2024 10:25	WUARL48H57K684173
2001	113	109 de	6		
21		6 07/08/2024 11:00	07/08/2024 11:00 07/08/2024 11:20	07/08/2024 11:21	3GYFNAEY1BS255875
2011	112	111 fr	4		
22		17 08/08/2024 15:00	08/08/2024 15:07	08/08/2024 15:35	1G6KD54Y92U557711
2007	113	120 en	1		
23		6 09/08/2024 17:35	09/08/2024 17:38	09/08/2024 18:05	1D4PU4GK7BW972165
2012	102	114 ar	13		
24		5 10/08/2024 12:00	10/08/2024 12:02	10/08/2024 12:25	3VW1K7AJ8DM593363
2010	114	117 ja	7		

24 rows selected.

SQL> -- IMPLICIT checks

SOL> 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	_	
BRA	1	Valid number of CDM		
CAN	1	Valid number of CDM		
CHN	1	Valid number of CDM		
EGY	1	Valid number of CDM		
ESP	1	Valid number of CDM		
FRA	1	Valid number of CDM		
GER	1	Valid number of CDM		
JPN	1	Valid number of CDM		
KAZ	1	Valid number of CDM		
NGR	1	Valid number of CDM		
USA	1	Valid number of CDM		

12 rows selected.

SQL> -- OFFICIAL

 $\hat{SQL}>$ -- CDM does not have a manager $\hat{SQL}>$ -- Official's manager must be from the same country

SQL>

SQL> set echo off

OFF_ID	OFF_IOC_CODE	OFF_CDM	CDM_IOC_CODE	CDM_CHECK
2	USA	1	USA	Valid manager
4	FRA	3	FRA	Valid manager
15	NGR	14	NGR	Valid manager

SQL> -- TRIP requirements

SOL> set echo off

TRIP_Requirement

Vehicle count: Met -> at least 5 vehicles used in more than one trip Official count: Met -> at least 5 officials booked more than one trip Driver count: Met -> at least 5 drivers Languange count: Met -> at least 5 languages

Parallel trip count: Met -> at least 2 parallel trips

SQL> -- TRIP

SQL> -- Checking trip dates within required range 20th July 2024 and 15th August 2024.

SQL> set echo off

DateType OutsideDateRange

Trip Date Time

SQL> -- Trips

SQL> -- Checking trip drop-off time is after the pick-up time, and sensible trip duration

SQL>

SQL> set echo off

TRIP_ID INTENDED_PICKUPDT	ACTUAL_PICKUPDT	INTENDED_DROPOFFDT	ACTUAL_DROPOFFDT	DURATION	TIME_CHECK
1 27/07/2024 07:00	27/07/2024 07:03	27/07/2024 09:25	27/07/2024 09:40	2.4	Valid pick-up and drop-off times
2 27/07/2024 17:00	27/07/2024 17:01	27/07/2024 19:40	27/07/2024 19:52	2.7	Valid pick-up and drop-off times
3 28/07/2024 08:00	28/07/2024 07:57	28/07/2024 08:30	28/07/2024 08:28	0.5	Valid pick-up and drop-off times
4 28/07/2024 12:00	28/07/2024 12:07	28/07/2024 12:20	28/07/2024 12:31	0.3	Valid pick-up and drop-off times
5 28/07/2024 12:00	28/07/2024 12:05	28/07/2024 12:20	28/07/2024 12:30	0.3	Valid pick-up and drop-off times
6 30/07/2024 15:40	30/07/2024 15:42	30/07/2024 17:00	30/07/2024 17:04	1.3	Valid pick-up and drop-off times
7 30/07/2024 16:45	30/07/2024 16:45	30/07/2024 18:00		1.3	Valid pick-up and drop-off times
8 30/07/2024 22:30		30/07/2024 23:30		1.0	Valid pick-up and drop-off times
9 31/07/2024 07:20	31/07/2024 07:30	31/07/2024 08:00	31/07/2024 08:13	0.7	Valid pick-up and drop-off times
10 31/07/2024 17:30	31/07/2024 17:32	31/07/2024 18:00	31/07/2024 18:06	0.5	Valid pick-up and drop-off times
11 01/08/2024 14:00	01/08/2024 14:01	01/08/2024 14:25	01/08/2024 14:28	0.4	Valid pick-up and drop-off times
12 02/08/2024 12:00	02/08/2024 12:00	02/08/2024 12:35	02/08/2024 12:33	0.6	Valid pick-up and drop-off times
13 02/08/2024 12:00	02/08/2024 12:00	02/08/2024 12:35	02/08/2024 12:30	0.6	Valid pick-up and drop-off times
14 03/08/2024 17:05	03/08/2024 17:10	03/08/2024 17:30	03/08/2024 17:36	0.4	Valid pick-up and drop-off times
15 04/08/2024 16:00	04/08/2024 16:03	04/08/2024 16:05	04/08/2024 16:09	0.1	Valid pick-up and drop-off times
16 04/08/2024 18:50	04/08/2024 18:52	04/08/2024 19:00	04/08/2024 19:03	0.2	Valid pick-up and drop-off times
17 05/08/2024 07:00	05/08/2024 07:06	05/08/2024 09:30	05/08/2024 09:40	2.5	Valid pick-up and drop-off times
18 05/08/2024 15:00	05/08/2024 14:55	05/08/2024 18:25	05/08/2024 18:22	3.4	Valid pick-up and drop-off times
19 05/08/2024 19:45	05/08/2024 19:50	05/08/2024 20:00	05/08/2024 20:06	0.3	Valid pick-up and drop-off times
20 06/08/2024 10:00	06/08/2024 10:00	06/08/2024 10:25	06/08/2024 10:25	0.4	Valid pick-up and drop-off times
21 07/08/2024 11:00	07/08/2024 11:00	07/08/2024 11:20	07/08/2024 11:21	0.3	Valid pick-up and drop-off times

22 08/08/2024 15:00	08/08/2024 15:07	08/08/2024 15:25	08/08/2024 15:35	0.4	Valid pick-up and drop-off times
23 09/08/2024 17:35	09/08/2024 17:38	09/08/2024 18:00	09/08/2024 18:05	0.4	Valid pick-up and drop-off times
24 10/08/2024 12:00	10/08/2024 12:02	10/08/2024 12:20	10/08/2024 12:25	0.3	Valid pick-up and drop-off times

24 rows selected.

SQL> -- Trips SQL> -- Checking vehicle must accommodate the requested number of passengers SQL> $\frac{1}{2} = \frac{1}{2} \left(\frac{1}{2} + \frac{1}{2} \right) \left(\frac{1}{2} + \frac{1}{2} \right) \left(\frac{1}{2} + \frac{1}{2} \right) \left(\frac{1}{2} + \frac{1}{2} + \frac{1}{2} \right) \left(\frac{1}{2} + \frac{1}{2} + \frac{1}{2} \right) \left(\frac{1}{2} + \frac{1}{2}$

SQL> set echo off

TRIP_ID	TRIP_NOPASSENGERS	VEH_NOPASSENGERS	PASSEN	GER_CHE	CK	
1	50	54	Valid 1	number	of	passengers
2	50					passengers
3	6	6	Valid 1	number	of	passengers
4	10	12	Valid 1	number	of	passengers
5	10	12	Valid 1	number	of	passengers
6	80	96	Valid 1	number	of	passengers
7	10	12	Valid 1	number	of	passengers
8 9	10	12	Valid 1	number	of	passengers
9	25	45	Valid 1	number	of	passengers
10	25	45	Valid 1	number	of	passengers
11	4	6	Valid 1	number	of	passengers
12	12	12	Valid 1	number	of	passengers
13	5	6	Valid 1	number	of	passengers
14	48					passengers
15	10					passengers
16	5					passengers
17	10					passengers
18	10					passengers
19	10					passengers
20	7					passengers
21	6					passengers
22	17					passengers
23	6 5					passengers
24	5	6	Valid 1	number	of	passengers

24 rows selected.

SQL> -- PKs used - must be under 100 SQL> set echo off

TABLE_NAME	PK_ABOVE_100
OFFICIAL TRIP	0

TASK 3 DML Marking

```
SQL> ----- Student Data replaced with marking data -----
SQL> ----- Task 3 DML -----
SQL> @T3-pat-dml.sql
SQL> /****PLEASE ENTER YOUR DETAILS BELOW*****/
SOL> --T3-pat-dml.sql
SOL>
SQL> --Student ID:
SOL> --Student Name: Sample Solution
SQL> /* Comments for your marker:
SOL>
SOL>
SQL>
SQL>
SOL>*/
SQL>
SOL> /*(a)*/
SQL> DROP SEQUENCE official_seq;
Error starting at line: 15 File @ /2024S2/Assignments/Ass2/SampleSolution/T3-pat-dml.sql
In command -
DROP SEQUENCE official_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 official_seq START WITH 100 INCREMENT BY 10;
Sequence OFFICIAL SEO created.
SQL> DROP SEQUENCE trip_seq;
Error starting at line: 19 File @ /2024S2/Assignments/Ass2/SampleSolution/T3-pat-dml.sql
In command -
DROP SEQUENCE trip seq
Error report -
ORA-02289: sequence does not exist
https://docs.oracle.com/error-help/db/ora-02289/02289. 00000 - "sequence does not exist"
          The specified sequence does not exist, or the user does
*Cause:
          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>
SQL> CREATE SEQUENCE trip_seq START WITH 100 INCREMENT BY 10;
Sequence TRIP_SEQ created.
SOL>
SOL > /*(b)*/
```

```
SQL> INSERT INTO official (
        off_id,
        off_given,
        off_family,
  5
        cr_ioc_code,
  6
        off_cdm
    ) VALUES (
 8
        official_seq.NEXTVAL,
 9
         'Franklin',
         'Gateau',
10
11
         (SELECT cr_ioc_code
12
         FROM country_region
13
         WHERE upper(cr_name) = upper('St Vincent and the Grenadines')),
14
15);
1 row inserted.
SQL>
SQL> COMMIT;
Commit complete.
SQL> INSERT INTO vehicle (
        veh_vin,
        veh_rego,
        veh_year,
        veh_curr_odo,
        veh_nopassengers,
        vm_model_id
 8
    ) VALUES (
         '1C4SDHCT9FC614231',
 9
10
         'EN852CD',
11
        TO_DATE('2023', 'YYYY'),
12
         2359,
13
14
         (SELECT vm_model_id
15
        FROM vehicle_model
             NATURAL JOIN manufacturer
16
17
         WHERE upper(man_name) = 'TOYOTA'
             AND upper(vm_model) = 'ALPHARD')
18
19);
1 row inserted.
SOL>
SQL> COMMIT;
Commit complete.
SOL>
SQL> /*(c)*/
SQL> INSERT INTO trip (
 2
        trip_id,
        trip_nopassengers,
```

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```
trip_int_pickupdt,
         trip_int_dropoffdt,
         veh_vin,
         driver_id,
  8
         pickup_locn_id,
  9
         dropoff_locn_id,
10
         lang_iso_code,
11
         off id
12 ) VALUES (
13
         trip_seq.nextval,
14
         TO_DATE('2024-07-30 12:30 PM', 'YYYY-MM-DD HH:MI PM'),
TO_DATE('2024-07-30 12:30 PM', 'YYYY-MM-DD HH:MI PM') + (1/24) + (30/60/24),
15
16
17
         '1C4SDHCT9FC614231',
18
         (select DRIVER ID from driver where upper(DRIVER LICENCE) = upper('55052a543210')),
19
         (select LOCN_ID from location where upper(locn_name) = upper('Olympic and Paralympic Village')),
 20
         (select LOCN ID from location where upper(locn name) = upper('Porte de la Chapelle Arena')),
 21
         (select LANG_ISO_CODE from language where upper(lang_name) = upper('English')),
         (select off id from OFFICIAL natural join COUNTRY REGION WHERE upper(cr name) = upper('St Vincent and the Grenadines'))
 22
 23 );
1 row inserted.
SQL> INSERT INTO trip (
         trip id,
 3
         trip_nopassengers,
         trip_int_pickupdt,
         trip_int_dropoffdt,
         veh vin.
         driver_id,
  8
         pickup_locn_id,
         dropoff_locn_id,
  9
10
         lang_iso_code,
11
         off id
12 ) VALUES (
13
         trip_seq.nextval,
14
15
         TO_DATE('2024-07-30 08:00 PM', 'YYYY-MM-DD HH:MI PM'),
16
         TO_DATE('2024-07-30 08:00 PM', 'YYYY-MM-DD HH:MI PM') + (1/24) + (15/60/24),
17
         '1C4SDHCT9FC614231',
18
         (select DRIVER_ID from driver where upper(DRIVER_LICENCE) = upper('55052a543210')),
         (select LOCN_ID from location where upper(locn_name) = upper('Porte de la Chapelle Arena')),
19
 20
         (select LOCN_ID from location where upper(locn_name) = upper('Olympic and Paralympic Village')),
 21
         (select LANG_ISO_CODE from language where upper(lang_name) = upper('English')),
 22
         (select off id from OFFICIAL natural join COUNTRY REGION WHERE upper(cr name) = upper('St Vincent and the Grenadines'))
23
    );
1 row inserted.
SOL>
SOL> COMMIT;
Commit complete.
SOL>
```

```
SQL > /*(d)*/
SQL>
SQL> UPDATE TRIP
  2 set TRIP_ACT_PICKUPDT = TO_DATE('2024-07-30 12:30 PM', 'YYYY-MM-DD HH:MI PM'),
    TRIP ACT DROPOFFDT = TO DATE('2024-07-30 12:30 PM', 'YYYY-MM-DD HH:MI PM') + (1/24) + (45/60/24)
  5
         driver_id = (select DRIVER_ID from driver where upper(DRIVER_LICENCE) = upper('55052a543210'))
  6
         TRIP_INT_PICKUPDT = TO_DATE('2024-07-30 12:30 PM', 'YYYY-MM-DD HH:MI PM');
1 row updated.
SQL> -- There are many combinations that can be used here:
SQL> -- veh vin + trip int pickupdt or veh vin + trip int dropoffdt or
SQL> -- driver_id + trlp_int_pickupdt or driver_id + trip_int_dropoffdt
SOL>
SOL> COMMIT;
Commit complete.
SOL>
SQL> DELETE FROM TRIP
 2 WHERE
         driver_id = (select DRIVER_ID from driver where upper(DRIVER_LICENCE) = upper('55052a543210'))
 3
  5
         TRIP INT PICKUPDT > TO DATE('2024-07-30 05:00 PM', 'YYYY-MM-DD HH:MI PM')
         TRIP_INT_PICKUPDT < TO_DATE('2024-07-30 11:59 PM', 'YYYY-MM-DD HH:MI PM')
  8
         TRIP_ACT_PICKUPDT is NULL;
2 rows deleted.
SOL>
SOL> COMMIT;
Commit complete.
SQL>
SOL> -- Check the new record in OFFICIAL table
SOL> set echo off
   OFF ID OFF GIVEN
                       OFF FAMILY
                                     CR_IOC_CODE
                                                        OFF_CDM
      100 Franklin
                       Gateau
                                     VTN
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
                     EN852CD
                                 2023
                                                         2359
                                                                                6
SQL> -- Check Claire's trips in TRIP table
SOL> set echo off
```

TRIP_ID RIVER_ID	TRIP_NOPASSENG PICKUP_LOCN_ID	GERS INTENDED_PICKUPDT DROPOFF_LOCN_ID LANG_		INTENDED_DROPOFFDT	ACTUAL_DROPOFFDT	VEH_VIN	D
100	112	6 30/07/2024 12:30		30/07/2024 14:00	30/07/2024 14:15	1C4SDHCT9FC614231	
2014 7 2014	113	111 en 10 30/07/2024 16:45 114 en	100 30/07/2024 16:45 5	30/07/2024 18:00		4T1BK3DB2BU891397	

TASK 4 Modifications Marking

```
SQL> ----- Task 4 ALTER ------
SQL> @T4-pat-mods.sql
SQL> /****PLEASE ENTER YOUR DETAILS BELOW*****/
SQL> --T4-pat-mods.sql
SOL>
SQL> --Student ID:
SQL> --Student Name: Sample Solution
SOL>
SQL> /* Comments for your marker:
SOL>
SQL>
SQL>
SQL>
SOL>*/
SQL>
SQL > /*(a)*/
SQL> ALTER TABLE official
       ADD (
 3
            off_role CHAR(1) DEFAULT 'G' NOT NULL,
 4
            CONSTRAINT chk_off_role CHECK (off_role IN ('G', 'A', 'H', 'C', 'P'))
  5
        );
Table OFFICIAL altered.
SOL>
SQL> COMMENT ON COLUMN official.off_role
 2 IS 'Role of the official. G: General, A:Administrator, H:Head Coach, C:Coach, P: Physician';
Comment created.
SQL>
SQL> UPDATE official
 2 SET
        off_role = 'A'
 4 WHERE
        off_cdm IS NULL;
13 rows updated.
SOL>
SQL> COMMIT;
Commit complete.
SQL> desc official;
Name
              Null?
                         Type
OFF_ID
              NOT NULL
                         NUMBER (4)
OFF_GIVEN
                         VARCHAR2(30)
OFF_FAMILY
                         VARCHAR2(30)
                         CHAR(3)
CR_IOC_CODE
              NOT NULL
OFF_CDM
                         NUMBER (4)
OFF_ROLE
              NOT NULL
                         CHAR(1)
```

```
SQL>
SQL> SELECT
  3
    FROM
         official;
   OFF_ID OFF_GIVEN
                       OFF_FAMILY
                                     CR_IOC_CODE
                                                        OFF_CDM OFF_ROLE
        1 Emily
                       Williams
                                     USA
                                                               Α
        2 Michael
                       Johnson
                                     USA
                                                             1 G
        3 Pierre
                       Martin
                                     FRA
                                                               Α
        4 Sophie
                       Dubois
                                     FRA
                                                              3 G
        5 James
                       Smith
                                     AUS
                                                               Α
        6 Laura
                       Schmidt
                                     GER
                                                               Α
        7 Yui
                                     JPN
                       Suzuki
                                                               Α
                                     CHN
        8 Wei
                       Zhanq
                                                                Α
        9 Alejandro
                                     ESP
                                                                Α
       10 Olivia
                                     CAN
                                                                Α
      11 Ana
                       Costa
                                     BRA
                                                               Α
       12
                       Batyrova
                                     KAZ
                                                               Α
      13 Ahmed
                       Hassan
                                     EGY
                                                               Α
      14 Oluwaseun
                       Okafor
                                     NGR
                                                               Α
      15 Chioma
                       Adeyemi
                                     NGR
                                                            14 G
     100 Franklin
                       Gateau
                                     VIN
                                                               Α
16 rows selected.
SQL>
SOL> /*(b)*/
SOL>
SQL> DROP TABLE category CASCADE CONSTRAINTS PURGE;
Error starting at line: 42 File @ /2024S2/Assignments/Ass2/SampleSolution/T4-pat-mods.sql
In command -
DROP TABLE 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"
*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, query 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>
SQL> DROP TABLE complaint CASCADE CONSTRAINTS PURGE;
Error starting at line: 44 File @ /2024S2/Assignments/Ass2/SampleSolution/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"
          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, query 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>
SQL> CREATE TABLE category (
        cat_id NUMBER(2) NOT NULL,
 3
        cat_name VARCHAR2(20) NOT NULL,
        cat_dempoints NUMBER(2) NOT NULL
 5
    );
Table CATEGORY created.
SOL>
SQL> COMMENT ON COLUMN category.cat_id
 2 IS 'Category identifier';
Comment created.
SQL> COMMENT ON COLUMN category.cat_name
 2 IS 'Category name';
Comment created.
SQL>
SQL> COMMENT ON COLUMN category.cat_dempoints
 2 IS 'Demerit points of the category';
Comment created.
SOL>
SOL>
SQL> ALTER TABLE category
 2
        ADD CONSTRAINT category_pk PRIMARY KEY (
 3
            cat_id
        );
Table CATEGORY altered.
SOL>
SQL> INSERT INTO category VALUES(
        1,
```

```
'Late arrival',
  5);
1 row inserted.
SQL>
SQL> INSERT INTO category VALUES(
 3
         'Rude behaviour',
 5
    );
1 row inserted.
SQL>
SQL> INSERT INTO category VALUES(
 2
 3
         'Poor driving',
  4
  5
    );
1 row inserted.
SQL>
SQL> INSERT INTO category VALUES(
 3
        'Failing to assist',
 4
        1
    );
1 row inserted.
SQL>
SQL> COMMIT;
Commit complete.
SQL>
SQL>
SQL> CREATE TABLE complaint (
         complaint_id NUMBER(4) NOT NULL,
         complaint_datetime DATE NOT NULL,
         complaint_comment VARCHAR2(200) NOT NULL,
         complaint_valid CHAR(1),
        trip_id NUMBER(4) NOT NULL,
        cat_id NUMBER(2) NOT NULL
  8);
Table COMPLAINT created.
SQL> COMMENT ON COLUMN complaint.complaint_id
 2 IS 'Complaint identifier';
```

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```
Comment created.
SQL> COMMENT ON COLUMN complaint.complaint_datetime
 2 IS 'Complaint date and time';
Comment created.
SQL> COMMENT ON COLUMN complaint.complaint_comment
 2 IS 'Complaint comment';
Comment created.
SOL>
SQL> COMMENT ON COLUMN complaint.complaint_valid
 2 IS 'Validity of the complaint Y = Yes, N = No';
Comment created.
SOL>
SQL> COMMENT ON COLUMN complaint.trip_id
 2 IS 'Trip identifier';
Comment created.
SQL>
SQL > COMMENT ON COLUMN complaint.cat_id
 2 IS 'Category identifier';
Comment created.
SQL> ALTER TABLE complaint
       ADD CONSTRAINT complaint_pk PRIMARY KEY (
            complaint_id
        );
Table COMPLAINT altered.
SOL>
SQL> ALTER TABLE complaint
        ADD CONSTRAINT complaint_uq UNIQUE (
             trip_id, complaint_datetime
 3
Table COMPLAINT altered.
SQL> ALTER TABLE complaint
        ADD CONSTRAINT chk_complaint_valid CHECK (
 3
             complaint_valid IN ('Y', 'N')
        );
Table COMPLAINT altered.
```

```
SQL>
SQL> ALTER TABLE complaint
         ADD CONSTRAINT trip_complaint_fk FOREIGN KEY (
  3
             trip_id
  4
             REFERENCES trip (
  5
  6
                 trip_id
             );
Table COMPLAINT altered.
SOL>
SQL> ALTER TABLE complaint
  2
         ADD CONSTRAINT category_complaint_fk FOREIGN KEY (
  3
             cat_id
  5
             REFERENCES category (
  6
                 cat_id
             );
Table COMPLAINT altered.
SOL>
SQL> desc category;
Name
                 Null?
                              Type
CAT ID
                 NOT NULL
                              NUMBER (2)
CAT_NAME
                 NOT NULL
                             VARCHAR2(20)
CAT_DEMPOINTS
                 NOT NULL
                             NUMBER (2)
SQL>
SQL> SELECT
  3
    FROM
         category;
   CAT_ID CAT_NAME
                                   CAT_DEMPOINTS
        1 Late arrival
        2 Rude behaviour
        3 Poor driving
        4 Failing to assist
SQL > desc complaint;
Name
                      Null?
                                   Type
COMPLAINT_ID
                      NOT NULL
                                   NUMBER (4)
                      NOT NULL
COMPLAINT_DATETIME
                                   DATE
COMPLAINT_COMMENT
                      NOT NULL
                                   VARCHAR2(200)
COMPLAINT_VALID
                                   CHAR(1)
TRIP_ID
                      NOT NULL
                                  NUMBER (4)
CAT_ID
                      NOT NULL
                                  NUMBER (2)
SQL>
SQL> SELECT
```

2 * 3 FROM 4 co

complaint;

no rows selected SQL>
SQL> set echo off SQL> -- Check OFFICIAL table SQL> set echo off

OFF_ID	OFF_GIVEN	OFF_FAMILY	CR_IOC_CODE	OFF_CDM	OFF_ROLE
5	James	Smith	AUS		A
11	Ana	Costa	BRA		A
10	Olivia		CAN		A
8	Wei	Zhang	CHN		A
13	Ahmed	Hassan	EGY		A
9	Alejandro		ESP		A
3	Pierre	Martin	FRA		A
4	Sophie	Dubois	FRA	3	G
6	Laura	Schmidt	GER		A
7	Yui	Suzuki	JPN		A
12		Batyrova	KAZ		A
14	Oluwaseun	Okafor	NGR		A
15	Chioma	Adeyemi	NGR	14	G
1	Emily	Williams	USA		A
2	Michael	Johnson	USA	1	G
100	Franklin	Gateau	VIN		A

16 rows selected.

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:
SQL> --Student Name: Sample Solution
SOL>
SQL>
SQL> /* Comments for your marker:
SOL>
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
SOL>
SQL> SELECT
 2
        locn_id,
 3
        locn name,
        locn_address,
        locatype_description,
  5
        count(trip_id) AS "PICKUP/DROPOFF_COUNT"
    FROM
  8
        location
 9
        NATURAL JOIN location_type
        LEFT OUTER JOIN trip
10
        ON ( location.locn_id = trip.dropoff_locn_id
11
12
        OR location.locn_id = trip.pickup_locn_id )
        AND (trip_act_pickupdt IS NOT NULL
13
        AND trip act dropoffdt IS NOT NULL)
14
15 GROUP BY
        locn_id,
16
17
        locn name,
18
        locn_address,
19
        locntype_description
 20 ORDER BY
        count(trip_id) DESC,
 21
 22
        locn_id;
  LOCN ID LOCN NAME
                                                      LOCN ADDRESS
 LOCNTYPE_DESCRIPTION
                           PICKUP/DROPOFF_COUNT
      113 Olympic and Paralympic village
                                                      D1, 93200 Saint-Denis, France
 Village
      114 Champions Park
                                                      75116 Paris, France
 Tourist attraction
      110 Pierre Mauroy Stadium
                                                      261 Bd de Tournai, 59650 Villeneuve-d'Ascq, France
  Stadium
```

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```
117 Tuileries Garden
                                                        75001 Paris, France
 Tourist attraction
      120 The Basilica of the Sacred Heart of Paris
                                                        35 Rue du Chevalier de la Barre, 75018 Paris, France
 Tourist attraction
      115 Eiffel Tower
                                                        Av. Gustave Eiffel, 75007 Paris, France
 Tourist attraction
      105 South Paris Arena
                                                        1 Pl. de la Prte de Versailles, 75015 Paris, France
                                                2
      107 North Paris Arena
                                                        Hall 8, 82 Av. des Nations, 93420 Villepinte, France
                                                2
 Arena
      111 Porte de La Chapelle Arena
                                                        56 Bd Ney, 75018 Paris, France
 Arena
      112 Roland Garros Stadium
                                                        2 Av. Gordon Bennett, 75016 Paris, France
 Stadium
      121 Saint-Ouentin-en-Yvelines Velodrome
                                                        1 Rue Laurent Fignon, Pl. de la Paix Celeste, 78180 Montigny-le-Bretonneux, France
 Stadium
      102 Bercy Arena
                                                        8 Bd de Bercy, 75012 Paris, France
                                                1
 Arena
      103 Champ de Mars Arena
                                                        2 Pl. Joffre, 75007 Paris, France
                                                1
 Arena
      104 Eiffel Tower Stadium
                                                        Pl. Jacques Rueff, 75007 Paris, France
                                                1
 Stadium
      109 Paris La Defense Arena
                                                        99 Jard. de l'Arche, 92000 Nanterre, France
 Arena
                                                1
      116 Louvre Museum
                                                        75001 Paris, France
 Tourist attraction
      118 Sainte-Chapelle
                                                        10 Bd du Palais, 75001 Paris, France
 Tourist attraction
                                                1
      119 Arc de Triomphe
                                                        Pl. Charles de Gaulle, 75008 Paris, France
 Tourist attraction
                                                1
      101 Bordeaux Stadium
                                                        Cr Jules Ladoumeque, 33300 Bordeaux, France
 Stadium
                                                0
      106 La Beaujoire Stadium
                                                        333 Rte de Saint-Joseph, 44300 Nantes, France
 Stadium
      108 Parc des Princes
                                                        24 Rue du Commandant Guilbaud, 75016 Paris, France
 Stadium
21 rows selected.
SOL>
SOL>
SQL> /* (b) */
SOL> -- PLEASE PLACE REQUIRED SOL SELECT STATEMENT FOR THIS PART HERE
SQL> -- ENSURE that your query is formatted and has a semicolon
SQL> -- (;) at the end of this answer
SOL>
SQL> SELECT
 2
        driver_id,
 3
        trim(driver_given
           driver_family) AS fullname,
        lpad(ltrim(to_char((SUM(trip_act_dropoffdt - trip_act_pickupdt) * 45.42 * 24), '$999.99')),20) AS total_period_payment
    FROM
              trip
        NATURAL JOIN driver
    WHERE
```

```
trip_act_dropoffdt between TO_DATE('01-Aug-2024 00:00:00', 'dd-Mon-yyyy hh24:mi:ss') and
11
         TO_DATE('07-Aug-2024 23:59:59', 'dd-Mon-yyyy hh24:mi:ss')
12
13
    GROUP BY
14
        driver_id,
15
         driver_given,
16
         driver_family
17
    UNION
18
    SELECT
19
         driver id,
20
         trim(driver_given
21
22
           driver_family),
23
         'No Trips'
24
    FROM
25
         driver
26
    WHERE
27
         driver_id NOT IN (
 28
             SELECT
 29
                 driver_id
 30
             FROM
 31
                 trip
 32
             WHERE
33
                 trip_act_dropoffdt between TO_DATE('01-Aug-2024 00:00:00', 'dd-Mon-yyyy hh24:mi:ss') and
34
                 TO_DATE('07-Aug-2024 23:59:59', 'dd-Mon-yyyy hh24:mi:ss'))
 35
    ORDER BY
36
         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
                                                 $15.90
        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
```

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TASK 6 JSON SELECT Marking

```
SQL> ----- Task 6 MongoDB (a) -----
SOL> @T6-pat-json.sql
SQL> /****PLEASE ENTER YOUR DETAILS BELOW*****/
SQL> --T6-pat-json.sql
SOL>
SOL> --Student ID:
SQL> --Student Name: Sample Solution
SOL>
SQL> /* Comments for your marker:
SOL>
SQL>
SQL>
SQL>
SQL>*/
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
SOL>
SQL> SELECT
        JSON OBJECT(
 3
             '_id' VALUE D.DRIVER_ID,
             'name' VALUE TRIM(D.DRIVER_GIVEN | | ' ' | D.DRIVER_FAMILY),
             'licence_num' VALUE D.DRIVER_LICENCE,
  5
             'no_of_trips' VALUE COUNT(trip_id),
  6
  7
             'suspended' VALUE D.DRIVER_SUSPENDED,
  8
             'trips_info' VALUE JSON_ARRAYAGG(
 9
                JSON OBJECT(
10
                     trip_id' VALUE trip_id,
11
                     'veh_vin' VALUE veh_vin,
 12
                     'pick-up' VALUE JSON_OBJECT(
                         'location_id' VALUE L1.LOCN_ID,
13
14
                         'location_name' VALUE L1.LOCN_NAME,
15
                         'intended_datetime'
16
                        VALUE to_char(trip_int_pickupdt,'dd/mm/yyyy hh24:mi'),
17
                         'actual_datetime'
                        VALUE to_char(trip_act_pickupdt,'dd/mm/yyyy hh24:mi')
18
19
                     'drop off' VALUE JSON_OBJECT(
 20
 21
                         'location_id' VALUE L2.LOCN_ID,
                         'location_name' VALUE L2.LOCN_NAME,
 23
                         'intended_datetime'
 24
                        VALUE to_char(trip_int_dropoffdt,'dd/mm/yyyy hh24:mi'),
 25
                        'actual datetime'
 26
                        VALUE to_char(trip_act_dropoffdt,'dd/mm/yyyy hh24:mi')
 27
 28
 29
 30
        FORMAT JSON)
 31
            11 ','
 32
    FROM DRIVER D JOIN TRIP T
 33
        ON D.DRIVER_ID = T.DRIVER_ID
34
        JOIN LOCATION L1
35
        ON T.PICKUP_LOCN_ID = L1.LOCN_ID
```

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```
36
                      JOIN LOCATION L2
   37
                      ON T.DROPOFF_LOCN_ID = L2.LOCN_ID
   38
            WHERE
   39
                      trip_act_pickupdt IS NOT NULL
   40
   41
                      trip act dropoffdt IS NOT NULL
   42
            GROUP BY
   43
                      D.DRIVER ID,
                      TRIM(D.DRIVER_GIVEN | | ' ' | D.DRIVER_FAMILY),
   44
   45
                      D.DRIVER_LICENCE,
   46
                      D.DRIVER SUSPENDED
   47
            ORDER BY
   48
                      D.DRIVER_ID;
JSON_OBJECT('_ID'VALUED.DRIVER_ID,'NAME'VALUETRIM(D.DRIVER_GIVEN||''||D.DRIVER_FAMILY),'LICENCE_NUM'VALUED.DRIVER_LICENCE,'NO_OF_TRIPS'VALUE
COUNT(TRIP_ID), 'SUSPENDED'VALUED.DRIVER_SUSPENDED, 'TRIPS_INFO'VALUEJSON_ARRAYAGG(JSON_OBJECT('TRIP_ID'VALUETRIP
 ["_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/
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"}}]},
```

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TASK 6 MongoDB Marking

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// ****PLEASE ENTER YOUR DETAILS BELOW****
// T6-pat-mongo.mongodb.js
// Student ID:
// Student Name: Sample Solution
//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("xyz001");
// (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([
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Garden", "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":"1
G6DL67A190421039", "pick-up": { "location_id":113, "location_name": "Olympic and Paralympic village", "intended_datetime": "27/07/2024 07:00", "actu
al_datetime":"27/07/2024 07:03"}, "drop off":{"location_id":110, "location_name":"Pierre Mauroy Stadium", "intended_datetime":"27/07/2024 09:25
","actual_datetime":"27/07/2024 09:40"}},{"trip_id":19,"veh_vin":"3GYFNAEY1BS255875","pick-up":{"location_id":112,"location_name":"Roland Ga rros Stadium","intended_datetime":"07/08/2024 11:00","actual_datetime":"07/08/2024 11:00"},"drop off":{"location_id":111,"location_name":"Po
rte 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": 21, "veh_vin": "1D4PU4G"
K7BW972165", "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"}}, {"trip_id":9,"veh_vin":"1C4SDHCT9FC613386", "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"}}]},
     {" id":2013,"name":"Lei Xiong","licence num":"441270890123","no of trips":1,"suspended":"N","trips info":[{"trip id":12,"veh vin":"5UXFG
8C50BL686231", "pick-up":{ "location_id":103, "location_name": "Champ de Mars Arena", "intended_datetime": "03/08/2024 17:05", "actual_datetime": "0
3/08/2024 17:10"}, "drop off":{"location id":113, "location name":"Olympic and Paralympic village", "intended datetime": "03/08/2024 17:30", "act
ual_datetime":"03/08/2024\ 17:36"}}},
```

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```
{"_id":2014,"name":"Claire Robert","licence_num":"55052a543210","no_of_trips":1,"suspended":"N","trips_info":[{"trip_id":100,"veh_vin":"
1C4SDHCT9FC614231", "pick-up": { "location_id":113, "location_name": "Olympic and Paralympic village", "intended_datetime": "30/08/2024 12:30", "act
ual_datetime": "30/08/2024 12:30"}, "drop off": { "location_id":111, "location_name": "Porte de La Chapelle Arena", "intended_datetime": "30/08/2024
 14:00", "actual_datetime": "30/08/2024 14:15"}}]},
          {"\_id": 2015, "name": "Nathalie Renaud", "licence_num": "660725432109", "no_of_trips": 1, "suspended": "N", "trips_info": [{"trip_id": 14, "veh_vin": ["trips_info": [{"trip_id": 14, "veh_vin": ["trips_info": ["trip
"3VW1K7AJ8DM593363", "pick-up":{ "location_id":114, "location_name": "Champions Park", "intended_datetime": "04/08/2024 18:50", "actual_datetime": "
04/08/2024 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"}}]
1);
// 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(
                  "Sor":
                  [{"trips_info.drop off.location_name":"Champions Park"},
                    {"trips_info.drop off.location_name": "Porte de La Chapelle Arena"}]
                   "name":1, "licence num":1, " id":0
);
// (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(
```

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```
"_id":2004
);
// Add new trip and set the driver to suspended
db.driver.updateOne(
     {"_id" : 2004},
    \{ "\$push":
        {"trips_info":
             {"trip_id":18,
              "veh_vin":"WUARL48H57K684173",
              "pick-up":
                  "location_id":117,
                  "location_name": "Tuileries Garden",
                  "intended_datetime":"10/08/2024 10:00",
                  "actual_datetime":"10/08/2024 10:00"
              },
"drop off":
                 {"location_id":118,
                  "location_name": "Sainte-Chapelle",
                  "intended_datetime":"10/08/2024 11:15",
                  "actual_datetime":"10/08/2024 11:23"
    },
"$set":{"suspended": "Y"},
"$inc":{"no_of_trips": 1}
);
// Illustrate/confirm changes made
db.driver.find(
         "_id":2004
);
```

```
// Student ID:
// Student Name: Sample Solution
>> 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': 2008,
   '8': 2009,
   '9': 2010,
   '10': 2011,
   '11': 2012,
   '12': 2013,
   '13': 2014,
   '14': 2015
>> List all documents you added
   _id: 2001,
   name: 'Pierre Martin',
   licence_num: '120501123456',
   no_of_trips: 2,
   suspended: 'N',
   trips_info: [
       trip_id: 18,
       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 Defense Arena',
         intended_datetime: '06/08/2024 10:25',
         actual_datetime: '06/08/2024 10:25'
       trip_id: 11,
       veh_vin: '3VW1K7AJ8DM593363',
       'pick-up': {
```

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```
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_datetime: '02/08/2024 12:30'
_id: 2002,
name: 'Marie Dupont',
licence_num: '34082A789012',
no_of_trips: 1,
suspended: 'N',
trips_info: [
    trip_id: 8,
    veh_vin: 'WAUMR44E85N069305',
    'pick-up': {
      location id: 121,
      location_name: 'Saint-Quentin-en-Yvelines Velodrome',
      intended_datetime: '31/07/2024 17:30',
      actual_datetime: '31/07/2024 17:32'
     drop off': {
      location_id: 114,
      location_name: 'Champions Park'
      intended_datetime: '31/07/2024 18:00',
      actual_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: 'SCBLC31E41C410996',
    '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': {
```

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```
location_id: 120,
      location_name: 'The Basilica of the Sacred Heart of Paris',
      intended_datetime: '28/07/2024 12:20',
      actual_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: 'JTEBW3EH8A2753607',
    'pick-up': {
      location_id: 120,
      location name: 'The Basilica of the Sacred Heart of Paris',
      intended_datetime: '30/07/2024 17:40',
      actual_datetime: '30/07/2024 17:42'
    drop off': {
      location_id: 114,
      location_name: 'Champions Park',
      intended_datetime: '30/07/2024 18:00',
      actual_datetime: '30/07/2024 18:04'
_id: 2005,
name: 'Sophie Bernard',
licence_num: '89122a345678',
no_of_trips: 1,
suspended: 'N',
trips_info: [
    trip_id: 13,
    veh_vin: '4T1BK3DB2BU891397',
    '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 16:09'
```

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```
_id: 2006,
name: 'Arman',
licence_num: '23072b567890',
no_of_trips: 4,
suspended: 'N',
trips_info: [
    trip_id: 17,
    veh_vin: 'YV1952AS4D1408550',
    'pick-up': {
      location_id: 117,
      location_name: 'Tuileries Garden',
      intended_datetime: '05/08/2024 19:45',
      actual_datetime: '05/08/2024 19:50'
    drop off': {
      location_id: 115,
      location_name: 'Eiffel Tower',
      intended_datetime: '05/08/2024 20:00',
      actual_datetime: '05/08/2024 20:06'
    trip_id: 16,
    veh_vin: 'YV1952AS4D1408550',
    'pick-up':
      location_id: 110,
      location_name: 'Pierre Mauroy Stadium',
      intended_datetime: '05/08/2024 15:00',
      actual_datetime: '05/08/2024 14:55'
    drop off:
      location_id: 117,
      location_name: 'Tuileries Garden',
      intended_datetime: '05/08/2024 18:25',
      actual_datetime: '05/08/2024 18:22'
    trip_id: 5,
    veh_vin: '4T1BK3DB2BU891397',
    '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_datetime: '28/07/2024 12:30'
```

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```
trip_id: 15,
    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: '05/08/2024 09:30',
      actual_datetime: '05/08/2024 09:40'
_id: 2007,
name: 'Jean Moreau',
licence_num: '560903234567',
no_of_trips: 2,
suspended: 'N',
trips_info: [
    trip_id: 2,
    veh_vin: '1G6DL67A190421039',
    'pick-up':
      location_id: 110,
      location_name: 'Pierre Mauroy Stadium',
      intended_datetime: '27/07/2024 17:00',
      actual_datetime: '27/07/2024 17:01'
    drop off:
      location_id: 113,
      location_name: 'Olympic and Paralympic village',
      intended_datetime: '27/07/2024 19:40',
      actual_datetime: '27/07/2024 19:52'
    trip_id: 20,
    veh_vin: '1G6KD54Y92U557711',
    'pick-up': {
      location_id: 113,
      location_name: 'Olympic and Paralympic village',
      intended_datetime: '08/08/2024 15:00',
      actual datetime: '08/08/2024 15:07'
    drop off: {
      location_id: 120,
      location_name: 'The Basilica of the Sacred Heart of Paris',
      intended_datetime: '08/08/2024 15:25',
      actual_datetime: '08/08/2024 15:35'
```

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```
_id: 2008,
name: 'Isabelle Fournier',
licence_num: '780350987654',
no_of_trips: 1,
suspended: 'N',
trips_info: [
    trip_id: 10,
    veh_vin: 'WAUD2AFD1EN836662',
    '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_datetime: '02/08/2024 12:33'
_id: 2009,
name: 'Emilie Michel',
licence_num: '900115876543',
no_of_trips: 1,
suspended: 'N',
trips_info: [
    trip_id: 7,
    veh_vin: 'WAUMR44E85N069305',
    'pick-up': {
  location_id: 113,
      location_name: 'Olympic and Paralympic village',
      intended_datetime: '31/07/2024 07:20',
      actual_datetime: '31/07/2024 07:30'
    drop off: {
      location_id: 121,
      location_name: 'Saint-Quentin-en-Yvelines Velodrome',
      intended_datetime: '31/07/2024 08:00',
      actual_datetime: '31/07/2024 08:13'
_id: 2010,
```

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```
name: 'Naoki Fujimoto',
licence_num: '110685765432',
no_of_trips: 2,
suspended: 'N',
trips_info: [
    trip_id: 3,
    veh_vin: '1D4PU4GK7BW972165',
    'pick-up':
      location_id: 113,
      location_name: 'Olympic and Paralympic village',
      intended_datetime: '28/07/2024 08:00',
      actual_datetime: '28/07/2024 07:57'
    drop off: {
      location_id: 104,
      location_name: 'Eiffel Tower Stadium',
      intended_datetime: '28/07/2024 08:30',
      actual_datetime: '28/07/2024 08:28'
    trip_id: 22,
    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 Garden',
      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: '1G6DL67A190421039',
    'pick-up':
      location_id: 113,
      location_name: 'Olympic and Paralympic village',
      intended_datetime: '27/07/2024 07:00',
      actual_datetime: '27/07/2024 07:03'
    drop off': {
```

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```
location_id: 110,
      location_name: 'Pierre Mauroy Stadium',
      intended_datetime: '27/07/2024 09:25',
      actual_datetime: '27/07/2024 09:40'
    trip_id: 19,
    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: 21,
    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'
    trip_id: 9,
    veh_vin: '1C4SDHCT9FC613386',
    'pick-up':
      location_id: 112,
      location_name: 'Roland Garros Stadium',
      intended_datetime: '01/08/2024 14:00',
      actual_datetime: '01/08/2024 14:01'
```

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```
'drop off': {
      location_id: 116,
      location_name: 'Louvre Museum',
      intended_datetime: '01/08/2024 14:25',
      actual_datetime: '01/08/2024 14:28'
_id: 2013,
name: 'Lei Xiong',
licence_num: '441270890123',
no_of_trips: 1,
suspended: 'N',
trips_info: [
    trip_id: 12,
    veh_vin: '5UXFG8C50BL686231',
    '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: 100,
    veh_vin: '1C4SDHCT9FC614231',
    'pick-up': {
      location_id: 113,
      location_name: 'Olympic and Paralympic village',
      intended_datetime: '30/08/2024 12:30',
      actual_datetime: '30/08/2024 12:30'
     drop off:
      location_id: 111,
      location_name: 'Porte de La Chapelle Arena',
      intended_datetime: '30/08/2024 14:00',
      actual_datetime: '30/08/2024 14:15'
```

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```
_id: 2015,
   name: 'Nathalie Renaud',
   licence_num: '660725432109',
    no_of_trips: 1,
    suspended: 'N',
    trips_info: [
        trip_id: 14,
        veh_vin: '3VW1K7AJ8DM593363',
        'pick-up': {
          location_id: 114,
          location_name: 'Champions Park',
          intended_datetime: '04/08/2024 18:50',
          actual_datetime: '04/08/2024 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'
Drop off (trips_info.drop off.location_name) matches in student documents: 5
   name: 'Marie Dupont',
   licence_num: '34082A789012'
   name: 'Antoine Lefevre',
   licence_num: '670495098765'
   name: 'Mathieu Girard',
   licence_num: '22102A456789'
    name: 'Mansour',
    licence_num: '33022B678901'
   name: 'Claire Robert',
    licence_num: '55052a543210'
Driver 2004 matches in student documents: 1
```

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```
_id: 2004,
   name: 'Antoine Lefevre',
   licence_num: '670495098765',
   no_of_trips: 1,
    suspended: 'N',
    trips_info: [
        trip_id: 6,
        veh_vin: 'JTEBW3EH8A2753607',
        'pick-up': {
          location_id: 120,
          location_name: 'The Basilica of the Sacred Heart of Paris',
          intended_datetime: '30/07/2024 17:40',
          actual_datetime: '30/07/2024 17:42'
        drop off': {
          location_id: 114,
          location_name: 'Champions Park',
          intended_datetime: '30/07/2024 18:00',
          actual_datetime: '30/07/2024 18:04'
>> Add new trip and set the driver to suspended
  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: 2,
    suspended: 'Y',
    trips_info: [
        trip_id: 6,
        veh_vin: 'JTEBW3EH8A2753607',
        'pick-up':
          location_id: 120,
          location_name: 'The Basilica of the Sacred Heart of Paris',
          intended_datetime: '30/07/2024 17:40',
          actual_datetime: '30/07/2024 17:42'
        drop off': {
          location_id: 114,
          location_name: 'Champions Park',
          intended_datetime: '30/07/2024 18:00',
```

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```
actual_datetime: '30/07/2024 18:04'
trip_id: 18,
veh_vin: 'WUARL48H57K684173',
'pick-up':
  location_id: 117,
  location_name: 'Tuileries Garden',
  intended_datetime: '10/08/2024 10:00',
  actual_datetime: '10/08/2024 10:00'
 drop off': {
  location_id: 118,
  location_name: 'Sainte-Chapelle',
  intended_datetime: '10/08/2024 11:15',
  actual_datetime: '10/08/2024 11:23'
```

Databases Units

Author: FIT Database Teaching Team

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