

REM Create each table

SQL>

SQL> CREATE TABLE bill_tos_ci

```
2  (
3    bill_to_no    NUMBER(5)
4        CONSTRAINT bill_bill_to_no_pk PRIMARY KEY,
5    bill_to_first_name VARCHAR2(20)
6        CONSTRAINT bill_bill_to_first_name_nn NOT NULL,
7    bill_to_last_name VARCHAR2(20)
8        CONSTRAINT bill_bill_to_last_name_nn NOT NULL,
9    bill_to_street_1 VARCHAR2(30)
10       CONSTRAINT bill_bill_to_street_1_nn NOT NULL,
11    bill_to_street_2 VARCHAR2(15),
12    bill_to_city   VARCHAR2(30)
13       CONSTRAINT bill_bill_to_city_nn NOT NULL,
14    bill_to_state  CHAR(2)
15       CONSTRAINT bill_bill_to_state_nn NOT NULL,
16    bill_to_zip    CHAR(5)
17       CONSTRAINT bill_bill_to_zip_nn NOT NULL
18 );
```

Table created.

SQL>

SQL> CREATE TABLE vehicles_ci

```
2  (
3    vehicle_vin   VARCHAR2(17)
4        CONSTRAINT vcle_vehicle_vin_pk PRIMARY KEY,
5    vehicle_make  VARCHAR2(20)
6        CONSTRAINT vcle_vehicle_make_nn NOT NULL,
7    vehicle_model VARCHAR2(20)
8        CONSTRAINT vcle_vehicle_model_nn NOT NULL,
9    vehicle_year  NUMBER(4)
10       CONSTRAINT vcle_vehicle_year_nn NOT NULL,
11    vehicle_color VARCHAR2(20)
12       CONSTRAINT vcle_vehicle_color_nn NOT NULL,
13    vehicle_dealer_no CHAR(5)
14       CONSTRAINT vcle_vehicle_dealer_no_nn NOT NULL
15 );
```

Table created.

SQL>

SQL> CREATE TABLE items_ci

```
2  (
3    item_no VARCHAR2(10)
4        CONSTRAINT item_item_no_pk PRIMARY KEY,
5    item_name VARCHAR2(20)
6        CONSTRAINT item_item_name_nn NOT NULL,
7    item_description VARCHAR2(30)
```

```

8      CONSTRAINT item_item_description_nn NOT NULL,
9      item_unit_price  NUMBER(6,2)
10     CONSTRAINT item_item_unit_price_nn NOT NULL
11 );

```

Table created.

```

SQL>
SQL> CREATE TABLE owners_ci
2  (
3      vehicle_vin  VARCHAR2(17),
4      bill_to_no  NUMBER(5),
5      CONSTRAINT owners_vcle_vin_bill_to_no_pk
6          PRIMARY KEY (vehicle_vin,bill_to_no),
7      CONSTRAINT owners_vehicle_vin_fk
8          FOREIGN KEY (vehicle_vin)
9              REFERENCES vehicles_ci(vehicle_vin),
10     CONSTRAINT owners_bill_to_no_fk
11         FOREIGN KEY (bill_to_no)
12             REFERENCES bill_tos_ci(bill_to_no)
13 );

```

Table created.

```

SQL>
SQL> CREATE TABLE invoices_ci
2  (
3      invoice_no  NUMBER(5)
4      CONSTRAINT invs_invoice_no_pk PRIMARY KEY,
5      invoice_date DATE
6      CONSTRAINT invs_inv_date_nn NOT NULL,
7      invoice_odometer  NUMBER(6,2)
8      CONSTRAINT invs_inv_odometer_nn NOT NULL,
9      invoice_tax  NUMBER(4,2)
10     CONSTRAINT invs_inv_tax_nn NOT NULL,
11     invoice_payment_cred  NUMBER(5,2)
12     CONSTRAINT invs_inv_payment_nn NOT NULL,
13     bill_to_no  NUMBER(5)
14     CONSTRAINT invs_bill_to_no_nn NOT NULL,
15     vehicle_vin  VARCHAR2(17)
16     CONSTRAINT invs_vcle_vehicle_vin_nn NOT NULL,
17     CONSTRAINT invs_bill_to_no_fk
18         FOREIGN KEY (vehicle_vin,bill_to_no)
19             REFERENCES owners_ci(vehicle_vin,bill_to_no)
20 );

```

Table created.

```

SQL>
SQL> CREATE TABLE items_sold_ci

```

```

2  (
3      invoice_no  NUMBER(5),
4      item_no    VARCHAR2(10),
5      item_qty_sold  NUMBER(3)
6          CONSTRAINT items_sold_item_qty_sold_nn  NOT NULL,
7      item_unit_price NUMBER(5,2)
8          CONSTRAINT items_sold_item_unit_price_nn
9              NOT NULL,
10     CONSTRAINT items_sold_inv_no_item_no_pk
11         PRIMARY KEY (invoice_no,item_no),
12     CONSTRAINT items_sold_invoice_no_fk
13         FOREIGN KEY (invoice_no)
14             REFERENCES invoices_ci(invoice_no),
15     CONSTRAINT prods_item_no_fk
16         FOREIGN KEY (item_no)
17             REFERENCES items_ci(item_no)
18 );

```

Table created.

SQL> REM Create sequences for each table:

SQL> CREATE SEQUENCE bill_bill_tos_no_seq

```

2  START WITH 8923
3  INCREMENT BY 1
4  MAXVALUE 99999
5  NOCYCLE
6  NOCACHE;

```

Sequence created.

SQL>

SQL> CREATE SEQUENCE vcle_vehicle_vin_no_seq

```

2  START WITH 8923
3  INCREMENT BY 1
4  MAXVALUE 99999
5  NOCYCLE
6  NOCACHE;

```

Sequence created.

SQL>

SQL> CREATE SEQUENCE item_item_no_no_seq

```

2  START WITH 8923
3  INCREMENT BY 1
4  MAXVALUE 99999
5  NOCYCLE
6  NOCACHE;

```

Sequence created.

```

SQL>
SQL> CREATE SEQUENCE items_sold_item_no_no_seq
  2 START WITH 8923
  3 INCREMENT BY 1
  4 MAXVALUE 99999
  5 NOCYCLE
  6 NOCACHE;

```

Sequence created.

```

SQL>
SQL> CREATE SEQUENCE invs_invoice_no_no_seq
  2 START WITH 8923
  3 INCREMENT BY 1
  4 MAXVALUE 99999
  5 NOCYCLE
  6 NOCACHE;

```

Sequence created.

```

SQL>
SQL> CREATE SEQUENCE owners_vehicle_vin_no_seq
  2 START WITH 8923
  3 INCREMENT BY 1
  4 MAXVALUE 99999
  5 NOCYCLE
  6 NOCACHE;

```

Sequence created.

SQL> REM To describe each table:

SQL> DESCRIBE items_ci

Name	Null?	Type
ITEM_NO	NOT NULL	VARCHAR2(10)
ITEM_NAME	NOT NULL	VARCHAR2(20)
ITEM_DESCRIPTION	NOT NULL	VARCHAR2(30)
ITEM_UNIT_PRICE	NOT NULL	NUMBER(6,2)

SQL> DESCRIBE vehicles_ci

Name	Null?	Type
VEHICLE_VIN	NOT NULL	VARCHAR2(17)
VEHICLE_MAKE	NOT NULL	VARCHAR2(20)
VEHICLE_MODEL	NOT NULL	VARCHAR2(20)
VEHICLE_YEAR	NOT NULL	NUMBER(4)
VEHICLE_COLOR	NOT NULL	VARCHAR2(20)
VEHICLE_DEALER_NO	NOT NULL	CHAR(5)

```
SQL> DESCRIBE bills_to_ci
ERROR:
ORA-04043: object bills_to_ci does not exist
```

```
SQL> DESCRIBE owners_ci
Name                                         Null?    Type
-----
VEHICLE_VIN                                NOT NULL VARCHAR2(17)
BILL_TO_NO                                  NOT NULL NUMBER(5)
```

```
SQL> DESCRIBE invoices_ci
Name                                         Null?    Type
-----
INVOICE_NO                                 NOT NULL NUMBER(5)
INVOICE_DATE                               NOT NULL DATE
INVOICE_ODOMETER                           NOT NULL NUMBER(6,2)
INVOICE_TAX                                NOT NULL NUMBER(4,2)
INVOICE_PAYMENT_CRED                        NOT NULL NUMBER(5,2)
BILL_TO_NO                                  NOT NULL NUMBER(5)
VEHICLE_VIN                                NOT NULL VARCHAR2(17)
```

```
SQL> DESCRIBE items_sold_ci
Name                                         Null?    Type
-----
INVOICE_NO                                 NOT NULL NUMBER(5)
ITEM_NO                                    NOT NULL VARCHAR2(10)
ITEM_QTY_SOLD                              NOT NULL NUMBER(3)
ITEM_UNIT_PRICE                            NOT NULL NUMBER(5,2)
```

```
SQL>
SQL> REM To get information about constraints:
SQL> COLUMN constraint_name FORMAT A32;
SQL> COLUMN column_name FORMAT A20;
SQL> COLUMN table_name FORMAT A15;
SQL> SELECT constraint_name, column_name, table_name
2 FROM user_cons_columns
3 WHERE constraint_name NOT LIKE 'BIN%'
4 ORDER BY constraint_name;
```

CONSTRAINT_NAME	COLUMN_NAME	TABLE_NAME
BILL_BILL_TO_CITY_NN	BILL_TO_CITY	BILL_TOS_CI
BILL_BILL_TO_FIRST_NAME_NN	BILL_TO_FIRST_NAME	BILL_TOS_CI
BILL_BILL_TO_LAST_NAME_NN	BILL_TO_LAST_NAME	BILL_TOS_CI
BILL_BILL_TO_NO_PK	BILL_TO_NO	BILL_TOS_CI

BILL_BILL_TO_STATE_NN	BILL_TO_STATE	BILL_TOS_CI
BILL_BILL_TO_STREET_1_NN	BILL_TO_STREET_1	BILL_TOS_CI
BILL_BILL_TO_ZIP_NN	BILL_TO_ZIP	BILL_TOS_CI
INVS_BILL_TO_NO_FK	BILL_TO_NO	INVOICES_CI
INVS_BILL_TO_NO_FK	VEHICLE_VIN	INVOICES_CI
INVS_BILL_TO_NO_NN	BILL_TO_NO	INVOICES_CI
INVS_INVOICE_NO_PK	INVOICE_NO	INVOICES_CI

CONSTRAINT_NAME	COLUMN_NAME	TABLE_NAME
INVS_INV_DATE_NN	INVOICE_DATE	INVOICES_CI
INVS_INV_ODOMETER_NN	INVOICE_ODOMETER	INVOICES_CI
INVS_INV_PAYMENT_NN	INVOICE_PAYMENT_CRED	INVOICES_CI
INVS_INV_TAX_NN	INVOICE_TAX	INVOICES_CI
INVS_VCLE_VEHICLE_VIN_NN	VEHICLE_VIN	INVOICES_CI
ITEMS_SOLD_INVOICE_NO_FK	INVOICE_NO	ITEMS_SOLD_CI
ITEMS_SOLD_INV_NO_ITEM_NO_PK	INVOICE_NO	ITEMS_SOLD_CI
ITEMS_SOLD_INV_NO_ITEM_NO_PK	ITEM_NO	ITEMS_SOLD_CI
ITEMS_SOLD_ITEM_QTY_SOLD_NN	ITEM_QTY_SOLD	ITEMS_SOLD_CI
ITEMS_SOLD_ITEM_UNIT_PRICE_NN	ITEM_UNIT_PRICE	ITEMS_SOLD_CI
ITEM_ITEM_DESCRIPTION_NN	ITEM_DESCRIPTION	ITEMS_CI

CONSTRAINT_NAME	COLUMN_NAME	TABLE_NAME
ITEM_ITEM_NAME_NN	ITEM_NAME	ITEMS_CI
ITEM_ITEM_NO_PK	ITEM_NO	ITEMS_CI
ITEM_ITEM_UNIT_PRICE_NN	ITEM_UNIT_PRICE	ITEMS_CI
OWNERS_BILL_TO_NO_FK	BILL_TO_NO	OWNERS_CI
OWNERS_VCLE_VIN_BILL_TO_NO_PK	VEHICLE_VIN	OWNERS_CI
OWNERS_VCLE_VIN_BILL_TO_NO_PK	BILL_TO_NO	OWNERS_CI
OWNERS_VEHICLE_VIN_FK	VEHICLE_VIN	OWNERS_CI
PRODS_ITEM_NO_FK	ITEM_NO	ITEMS_SOLD_CI
VCLE_VEHICLE_COLOR_NN	VEHICLE_COLOR	VEHICLES_CI
VCLE_VEHICLE_DEALER_NO_NN	VEHICLE_DEALER_NO	VEHICLES_CI
VCLE_VEHICLE_MAKE_NN	VEHICLE_MAKE	VEHICLES_CI

CONSTRAINT_NAME	COLUMN_NAME	TABLE_NAME
VCLE_VEHICLE_MODEL_NN	VEHICLE_MODEL	VEHICLES_CI
VCLE_VEHICLE_VIN_PK	VEHICLE_VIN	VEHICLES_CI
VCLE_VEHICLE_YEAR_NN	VEHICLE_YEAR	VEHICLES_CI

36 rows selected.

```
SQL>
SQL> REM To get information about sequences:
SQL> SELECT sequence_name, increment_by
      2  FROM user_sequences;
```

SEQUENCE_NAME	INCREMENT_BY
---------------	--------------

```
-----
BILL_BILL_TOS_NO_SEQ          1
INVS_INVOICE_NO_NO_SEQ        1
ITEMS_SOLD_ITEM_NO_NO_SEQ     1
ITEM_ITEM_NO_NO_SEQ           1
OWNERS_VEHICLE_VIN_NO_SEQ     1
VCLE_VEHICLE_VIN_NO_SEQ       1
```

6 rows selected.

SQL>