

# DDL:

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CREATE SCHEMA "SUPPLY_CHAIN_MANAGEMENT";
SET SEARCH_PATH TO 'SUPPLY_CHAIN_MANAGEMENT';

--1)
CREATE TABLE SUPPLIER
(
    SUPPLIER_ID VARCHAR(20),
    SUPPLIER_NAME VARCHAR(50) NOT NULL,
    SUPPLIER_TYPE CHAR(1) NOT NULL,
    EMAIL_ID VARCHAR(50) ,
    COUNTRY VARCHAR(30) NOT NULL,
    STATE VARCHAR(30) NOT NULL,
    CITY VARCHAR(30) NOT NULL,
    CONTACT_NO VARCHAR(10) NOT NULL,
    PRIMARY KEY (SUPPLIER_ID)
);

--2)
CREATE TABLE PARTS
(
    PART_ID VARCHAR(20),
    PART_NAME VARCHAR(20) NOT NULL,
    UNIT_PRICE DECIMAL(10,2) NOT NULL,
    PRIMARY KEY (PART_ID)
);

--3)
CREATE TABLE SUPPLIES_PARTS
(
    SUPPLIER_ID VARCHAR(20),
    PART_ID VARCHAR(20),
    QUANTITY_STOCK VARCHAR(10) NOT NULL,
    PRIMARY KEY (PART_ID , SUPPLIER_ID),
    FOREIGN KEY (SUPPLIER_ID) REFERENCES SUPPLIER(SUPPLIER_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE,
    FOREIGN KEY (PART_ID) REFERENCES PARTS(PART_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE
);

--4)
CREATE TABLE ORDERS_OF_SUPPLIER
(
    ORDERING_SUPPLIER VARCHAR(20),
    PROVIDING_SUPPLIER VARCHAR(20),
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ORDERED_PART_ID VARCHAR(20),
SUPPLIER_ORDER_NO INTEGER,
QTY VARCHAR(10),
AMOUNT DECIMAL(10,2) NOT NULL,
PRIMARY KEY (ORDERING_SUPPLIER, PROVIDING_SUPPLIER, ORDERED_PART_ID,
SUPPLIER_ORDER_NO),
FOREIGN KEY (ORDERING_SUPPLIER) REFERENCES SUPPLIER(SUPPLIER_ID)
ON UPDATE CASCADE
ON DELETE CASCADE,
FOREIGN KEY (PROVIDING_SUPPLIER) REFERENCES SUPPLIER(SUPPLIER_ID)
ON UPDATE CASCADE
ON DELETE CASCADE,
FOREIGN KEY (ORDERED_PART_ID) REFERENCES PARTS(PART_ID)
ON UPDATE CASCADE
ON DELETE CASCADE
);

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--5)

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CREATE TABLE MANUFACTURER
(
    M_ID VARCHAR(20),
    M_NAME VARCHAR(50) NOT NULL,
    CONTACT_NO VARCHAR(10) NOT NULL ,
    EMAIL_ID VARCHAR(50),
    COUNTRY VARCHAR(30) NOT NULL,
    STATE VARCHAR(30) NOT NULL,
    CITY VARCHAR(30) NOT NULL,
    PRIMARY KEY (M_ID)
);

```

--6)

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CREATE TABLE ORDER_OF_MANUFACTURER
(
    ORDER_NO VARCHAR(20),
    M_ID VARCHAR(20),
    PLACING_DATE DATE NOT NULL,
    RECEIVING_DATE DATE ,
    PRIMARY KEY (ORDER_NO),
    FOREIGN KEY (M_ID) REFERENCES MANUFACTURER(M_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE
);

```

--7)

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CREATE TABLE ORDER_FOR_PARTS
(
    PART_ID VARCHAR(20),
    ORDER_NO VARCHAR(20),

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    QUANTITY VARCHAR(10) NOT NULL,
    PRIMARY KEY(PART_ID, ORDER_NO),
    FOREIGN KEY (PART_ID) REFERENCES PARTS(PART_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE,
    FOREIGN KEY (ORDER_NO) REFERENCES ORDER_OF_MANUFACTURER(ORDER_NO)
    ON UPDATE CASCADE
    ON DELETE CASCADE
);

--8)
CREATE TABLE ORDER_TRANSACTIONS
(
    TRANSACTION_ID VARCHAR(20),
    ORDER_NO VARCHAR(20) NOT NULL,
    ORDERED_AMOUNT DECIMAL(10,2),
    TAX_NAME VARCHAR(20),
    TAX_IN_PERCENTAGE DECIMAL(5,2),
    TOTAL_AMOUNT DECIMAL(10,2) NOT NULL,
    PRIMARY KEY (TRANSACTION_ID),
    FOREIGN KEY (ORDER_NO) REFERENCES ORDER_OF_MANUFACTURER(ORDER_NO)
    ON UPDATE CASCADE
    ON DELETE CASCADE
);

--9)
CREATE TABLE CAR_MODEL
(
    CAR_MODEL_ID VARCHAR(20),
    MODEL_NAME VARCHAR(25) NOT NULL,
    MILEAGE_IN_KMPL DECIMAL(10,2) NOT NULL,
    COLOR VARCHAR(20),
    WARRANTY_DURATION_MONTHS INTEGER,
    PRIMARY KEY (CAR_MODEL_ID)
);

--10)
CREATE TABLE ORDER_BASED_ON
(
    ORDER_NO VARCHAR(20),
    CAR_MODEL_ID VARCHAR(20),
    PRIMARY KEY(ORDER_NO, CAR_MODEL_ID),
    FOREIGN KEY (ORDER_NO) REFERENCES ORDER_OF_MANUFACTURER(ORDER_NO)
    ON UPDATE CASCADE
    ON DELETE CASCADE,
    FOREIGN KEY (CAR_MODEL_ID) REFERENCES CAR_MODEL(CAR_MODEL_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE
);

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);

--11)
CREATE TABLE ASSEMBLY_PLANT
(
    PLANT_NO VARCHAR(20),
    M_ID VARCHAR(20),
    COUNTRY VARCHAR(20) NOT NULL,
    STATE VARCHAR(20) NOT NULL,
    CITY VARCHAR(20) NOT NULL,
    PRIMARY KEY(PLANT_NO),
    FOREIGN KEY (M_ID) REFERENCES MANUFACTURER(M_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE
);

--12)
CREATE TABLE PLANT_HEAD
(
    PHEAD_ID VARCHAR(20),
    H_NAME VARCHAR(20) NOT NULL,
    PLANT_NO VARCHAR(20) NOT NULL,
    CONTACT_NO VARCHAR(10) NOT NULL,
    PRIMARY KEY(PHEAD_ID),
    FOREIGN KEY (PLANT_NO) REFERENCES ASSEMBLY_PLANT(PLANT_NO)
    ON UPDATE CASCADE
    ON DELETE CASCADE
);

--13)
CREATE TABLE MANUFACTURED_PARTS_BY_OWN
(
    COMPONENT_ID VARCHAR(20),
    COMPONENT_NAME VARCHAR(20) NOT NULL,
    CAR_MODEL_ID VARCHAR(20),
    M_ID VARCHAR(20) ,
    UNIT_PRICE DECIMAL(10,2) NOT NULL,
    QUALITY_FACTORS VARCHAR(100),
    PRIMARY KEY(COMPONENT_ID),
    FOREIGN KEY (M_ID) REFERENCES MANUFACTURER(M_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE,
    FOREIGN KEY (CAR_MODEL_ID) REFERENCES CAR_MODEL(CAR_MODEL_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE
);

--14)

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CREATE TABLE PLANT_PRODUCES
(
    PLANT_NO VARCHAR(20),
    CAR_MODEL_ID VARCHAR(20),
    START_DATE DATE NOT NULL,
    END_DATE DATE ,
    PRIMARY KEY (PLANT_NO , CAR_MODEL_ID),
    FOREIGN KEY (CAR_MODEL_ID) REFERENCES CAR_MODEL(CAR_MODEL_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE,
    FOREIGN KEY (PLANT_NO) REFERENCES ASSEMBLY_PLANT(PLANT_NO)
    ON UPDATE CASCADE
    ON DELETE CASCADE
);

```

--15)

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CREATE TABLE DEALER
(
    DEALER_ID VARCHAR(20),
    DEALER_NAME VARCHAR(50) NOT NULL,
    DEALS_WITH_M_ID VARCHAR(20),
    CONTACT_NO VARCHAR(10) NOT NULL,
    EMAIL_ID VARCHAR(50),
    COUNTRY VARCHAR(30) NOT NULL,
    STATE VARCHAR(30) NOT NULL,
    CITY VARCHAR(30) NOT NULL,
    PRIMARY KEY(DEALER_ID),
    FOREIGN KEY (DEALS_WITH_M_ID) REFERENCES MANUFACTURER(M_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE
);

```

--16)

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CREATE TABLE DEALER_ORDER_FOR
(
    DEALER_ID VARCHAR(20),
    CAR_MODEL_ID VARCHAR(20),
    ORDERING_DATE DATE NOT NULL,
    RECEIVING_DATE DATE ,
    TAX_NAME VARCHAR(20),
    TAX_IN_PERCENTAGE DECIMAL(5,2),
    TOTAL_AMOUNT DECIMAL(18,2) NOT NULL,
    PRIMARY KEY(DEALER_ID, CAR_MODEL_ID),
    FOREIGN KEY (DEALER_ID) REFERENCES DEALER(DEALER_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE,
    FOREIGN KEY (CAR_MODEL_ID) REFERENCES CAR_MODEL(CAR_MODEL_ID)
    ON UPDATE CASCADE
);

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        ON DELETE CASCADE
    );

--17)
CREATE TABLE TEST
(
    TEST_NAME VARCHAR(20) PRIMARY KEY
);

--18)
CREATE TABLE CAR_TEST
(
    TEST_NAME VARCHAR(20),
    CAR_MODEL_ID VARCHAR(20),
    RESULT CHAR(1),
    PRIMARY KEY(TEST_NAME, CAR_MODEL_ID),
    FOREIGN KEY (CAR_MODEL_ID) REFERENCES CAR_MODEL(CAR_MODEL_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE,
    FOREIGN KEY (TEST_NAME) REFERENCES TEST(TEST_NAME)
    ON UPDATE CASCADE
    ON DELETE CASCADE
);

--19)
CREATE TABLE CUSTOMER
(
    CUSTOMER_ID VARCHAR(20),
    CUSTOMER_NAME VARCHAR(50) NOT NULL,
    CONTACT_NO VARCHAR(10) NOT NULL,
    EMAIL_ID VARCHAR(50),
    COUNTRY VARCHAR(30) NOT NULL,
    STATE VARCHAR(30) NOT NULL,
    CITY VARCHAR(30) NOT NULL,
    PRIMARY KEY(CUSTOMER_ID)
);

--20)
CREATE TABLE RTO
(
    REGISTRATION_NO VARCHAR(20),
    ENGINE_NO VARCHAR(20) NOT NULL,
    REGISTRATION_DATE DATE NOT NULL,
    VIN VARCHAR(20) NOT NULL,
    TOTAL_REG_AMOUNT DECIMAL(10,2) NOT NULL,
    ROAD_TAX_AMOUNT DECIMAL(10,2) NOT NULL,
    PRIMARY KEY(REGISTRATION_NO)
);

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--21)
CREATE TABLE SELLS_TO
(
    DEALER_ID VARCHAR(20),
    CUSTOMER_ID VARCHAR(20),
    CAR_MODEL_ID VARCHAR(20),
    REGISTRATION_NO VARCHAR(20),
    SELLING_DATE DATE NOT NULL,
    CAR_AMOUNT DECIMAL(18,2) NOT NULL,
    TAX_NAME VARCHAR(20) ,
    TAX_IN_PERCENTAGE DECIMAL(5,2),
    DISCOUNT_AMOUNT DECIMAL(10,2),
    PRIMARY KEY(DEALER_ID, CUSTOMER_ID, CAR_MODEL_ID),
    FOREIGN KEY (DEALER_ID, CAR_MODEL_ID) REFERENCES
DEALER_ORDER_FOR(DEALER_ID, CAR_MODEL_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE,
    FOREIGN KEY (REGISTRATION_NO) REFERENCES RTO(REGISTRATION_NO)
    ON UPDATE CASCADE
    ON DELETE CASCADE,
    FOREIGN KEY (CUSTOMER_ID) REFERENCES CUSTOMER(CUSTOMER_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE
);
```

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--22)
CREATE TABLE INSURANCE
(
    IN_POLICY_NO VARCHAR(20),
    COMPANY_NAME VARCHAR(20) NOT NULL,
    CUSTOMER_ID VARCHAR(20),
    DEALER_ID VARCHAR(20),
    CAR_MODEL_ID VARCHAR(20),
    START_DATE DATE NOT NULL,
    END_DATE DATE NOT NULL,
    COVERAGE_AMOUNT DECIMAL(18,2) NOT NULL,
    INSURANCE_AMOUNT DECIMAL(18,2) NOT NULL,
    PRIMARY KEY (IN_POLICY_NO),
    FOREIGN KEY (DEALER_ID,CAR_MODEL_ID,CUSTOMER_ID) REFERENCES
SELLS_TO(DEALER_ID,CAR_MODEL_ID,CUSTOMER_ID)
    ON UPDATE CASCADE
    ON DELETE CASCADE
);
```