

```
CREATE TABLE customer (  
    customer_id serial PRIMARY KEY,  
    customer_first_name VarChar NOT NULL,  
    customer_last_name VarChar NOT NULL,  
    customer_address VarChar,  
    customer_city VarChar,  
    customer_state Char(2),  
    customer_zip integer,  
    customer_email VarChar NOT NULL,  
    customer_phone VarChar NOT NULL  
);
```

```
CREATE TABLE payment (  
    payment_id serial PRIMARY KEY,  
    card_number Char(19) NOT NULL,  
    cvc Char(3) NOT NULL,  
    expiration_date date NOT NULL  
);
```

```
CREATE TABLE employee (  
    employee_id serial PRIMARY KEY,  
    employee_first_name VarChar,  
    employee_last_name VarChar,  
    employee_address VarChar,  
    employee_city VarChar,  
    employee_state Char(2),  
    employee_zip integer,  
    employee_phone VarChar NOT NULL,  
    employee_email VarChar NOT NULL  
);
```

```
CREATE TABLE supplier (  
    supplier_id serial PRIMARY KEY,  
    supplier_name VarChar,  
    supplier_address VarChar,  
    supplier_city VarChar,  
    supplier_state Char(2),  
    supplier_zip integer,  
    supplier_phone VarChar NOT NULL,  
    supplier_email VarChar NOT NULL  
);
```

```
CREATE TABLE insurance_policy (  
    insurance_id serial PRIMARY KEY,  
    deductible money,  
    premium money,  
    provider VarChar  
);
```

```

CREATE TABLE power_supply(
    power_supply_id serial PRIMARY KEY,
    power_supply_description VarChar NOT NULL
);

CREATE TABLE manufacturer(
    manufacturer_id serial PRIMARY KEY,
    manufacturer_name VarChar NOT NULL
);

CREATE TABLE use(
    use_id serial PRIMARY KEY,
    use_description VarChar NOT NULL
);

CREATE TABLE status(
    status_id serial PRIMARY KEY,
    status_description VarChar NOT NULL
);

CREATE TABLE tool (
    tool_id serial PRIMARY KEY,
    tool_name VarChar,
    serial_number VarChar,
    purchase_date date,
    purchase_price money,
    rental_fee money,
    power_supply_id integer REFERENCES power_supply ON DELETE CASCADE ON
UPDATE CASCADE,
    manufacturer_id integer REFERENCES manufacturer ON DELETE CASCADE ON
UPDATE CASCADE,
    use_id integer REFERENCES use ON DELETE CASCADE ON UPDATE CASCADE,
    status_id integer REFERENCES status ON DELETE CASCADE ON UPDATE
CASCADE,
    insurance_id integer REFERENCES insurance_policy ON DELETE CASCADE
ON UPDATE CASCADE,
    supplier_id integer REFERENCES supplier ON DELETE CASCADE ON UPDATE
CASCADE
);

CREATE TABLE tool_rental (
    tool_rental_id serial PRIMARY KEY,
    rental_date date NOT NULL,
    due_date date NOT NULL,
    active boolean NOT NULL,
    insurance boolean NOT NULL,
    customer_id integer REFERENCES customer ON DELETE CASCADE ON UPDATE
CASCADE,
    payment_id integer REFERENCES payment ON DELETE CASCADE ON UPDATE

```

```

CASCADE,
            employee_id integer REFERENCES employee ON DELETE CASCADE ON UPDATE
CASCADE,
            tool_id integer REFERENCES tool ON DELETE CASCADE ON UPDATE CASCADE
);

```

```

INSERT INTO customer (customer_first_name,customer_last_name,customer_address,
customer_city,customer_state,customer_zip,customer_email,customer_phone) VALUES
('john','smith','100 N. 7th
St.','Wellington','CO',80549,'johnsmith@gmail.com','970-123-4567'),
('jason','borne','200 S. 3rd
St.','Windsor','CO',80550,'jasonborne@yahoo.com','307-231-0039'),
('john','Wick','234 E. Walnut
St.','Severance','CO',80550,'johnwick@gmail.com','970-231-0938'),
('Bill','Thornton','123 W. Oak St.','Ft.
Collins','CO',80524,'billthornton@gmail.com','970-123-4567'),
('Jane','Doe','123 S. 23rd
St.','Kersey','CO','80437','janedoe@gmail.com','970-234-0038');

```

```

INSERT INTO payment(card_number,cvc,expiration_date) VALUES
('1234-1234-1234-1234',234,'10/30/22'),
('1234-3454-3838-9399',678,'10/30/23'),
('1256-3838-9392-0083',839,'09/30/24'),
('1209-9393-0098-3748',789,'09/30/24'),
('3902-7383-8938-9238',456,'07/30/24');

```

```

INSERT INTO
employee(employee_first_name,employee_last_name,employee_address,employee_city,emplo
yee_state,
            employee_zip,employee_email,employee_phone) VALUES
('susan','smith','100 N. 10th
St.','Wellington','CO',80549,'susansmith@gmail.com','970-133-4267'),
('jane','borne','200 S. 12rd
St.','Windsor','CO',80550,'janeborne@yahoo.com','307-211-0039'),
('josh','Wick','234 E. pine
St.','Severance','CO',80550,'joshwick@gmail.com','970-222-0938'),
('trent','Thornton','123 W. birch St.','Ft.
Collins','CO',80524,'trentthornton@gmail.com','970-153-4567'),
('John','Doe','123 S. 3rd
St.','Kersey','CO','80437','johndoe@gmail.com','970-236-0038');

```

```

INSERT INTO
supplier(supplier_name,supplier_address,supplier_city,supplier_state,supplier_zip,su
pplier_email,
            supplier_phone) VALUES
('NOCO Tools','10 N. 10th
St.','Wellington','CO',80549,'NOCOtool@gmail.com','970-132-4267'),

```

```
( 'Poudre Supply','392 S. 12th
St.','Windsor','CO',80550,'Poudresupply@yahoo.com','970-211-2239'),
( 'Weld County Tools','344 pine
St.','Severance','CO',80550,'WELDCOtools@gmail.com','970-223-0948'),
( 'Fort Collins Machine and Tool','8923 birch St.','Ft.
Collins','CO',80524,'FOCOMT@gmail.com','970-173-4127'),
( 'ACME Suppliers','123 S. 3rd
St.','Johnstown','CO','80447','ACMESupply@gmail.com','970-216-1238');
```

```
INSERT INTO insurance_policy (deductable,premium,provider)VALUES
(100,500,'ACME Insurance'),
(200,1000,'ACME Insurance'),
(100, 500,'NOCO Insurance'),
(200,1000,'NOCO Insurance'),
(300,1500,'FOCO Insurance');
```

```
INSERT INTO power_supply(power_supply_description) VALUES
('110 Volt'),
('220 Volt'),
('Battery'),
('Gas');
```

```
INSERT INTO manufacturer(manufacturer_name) VALUES
('Makita'),
('Dewalt'),
('Millwaukee'),
('Porter Cable'),
('Hilti');
```

```
INSERT INTO use(use_description) VALUES
('Garden'),
('Woodworking'),
('Electical'),
('Plumbing'),
('Metal');
```

```
INSERT INTO status(status_description) VALUES
('Rented'),
('Maintenance'),
('Available'),
('Missing');
```

```
INSERT INTO tool
(tool_name,serial_number,purchase_date,purchase_price,rental_fee,power_supply_id,man
ufacturer_id,
use_id,status_id,insurance_id,supplier_id) VALUES
('7" circular saw','dk37893','10/20/19',80,10,1,1,2,3,1,2),
('1hp weedeater','3289893','10/20/19',300,25,4,4,2,3,1,2),
```

```
('12" Miter saw','dk89238','10/20/19',200,20,1,1,2,3,1,2),
('rototiller','2323843879','10/20/19',600,50,4,4,2,3,3,5),
('table saw','348923','10/20/19',300,50,1,1,2,3,2,3);
```

```
CREATE FUNCTION count_rental() RETURNS TRIGGER
```

```
AS $count_rental$
```

```
BEGIN
```

```
    if (select count(*) from tool_rental
        WHERE tool_rental.active = true and tool_rental.customer_id =
new.customer_id) >= 3
    then
        RAISE EXCEPTION 'This customer has already rented 3 tools';
    else
        return new;
    END IF;
```

```
END
```

```
$count_rental$ LANGUAGE plpgsql;
```

```
CREATE TRIGGER count_rental BEFORE INSERT
```

```
ON tool_rental
```

```
For EACH ROW
```

```
EXECUTE PROCEDURE count_rental();
```

```
INSERT INTO tool_rental
```

```
(rental_date,due_date,active,insurance,customer_id,payment_id,employee_id,tool_id)
VALUES
```

```
('5/6/20','5/7/20',false,true,1,1,1,1),
('7/30/20','7/30/20',false,true,2,2,2,2),
('6/21/20','6/21/20',false,true,3,3,3,3),
('4/18/20','4/19/21',false,true,4,4,4,4),
('4/18/20','4/19/21',false,true,5,5,5,5);
```

```
INSERT INTO tool_rental
```

```
(rental_date,due_date,active,insurance,customer_id,payment_id,employee_id,tool_id)
VALUES
```

```
('10/09/21','10/15/21',true,true,1,1,1,2),
('10/09/21','10/15/21',true,true,1,1,1,3),
```

```
SELECT*FROM customer NATURAL JOIN tool_rental NATURAL JOIN payment NATURAL JOIN
employee
```

```
                                NATURAL JOIN tool NATURAL JOIN supplier NATURAL JOIN
manufacturer
```

```
                                NATURAL JOIN use NATURAL JOIN power_supply NATURAL JOIN
status NATURAL JOIN insurance_policy;
```

```
SELECT customer_id, customer_first_name, customer_address, customer_zip FROM
customer
```

```
order by customer_id;
```

```
INSERT INTO tool_rental
(rental_date,due_date,active,insurance,customer_id,payment_id,employee_id,tool_id)
VALUES
('10/01/21','10/3/21',false,true,4,1,1,1),
('10/02/21','10/4/21',false,true,5,2,2,2),
('10/8/21','10/13/21',false,true,5,3,3,3);
```

```
Select tool_rental_id, tool_name, rental_date from tool_rental natural join tool
WHERE current_date-rental_date<=30;
```

```
UPDATE customer
SET customer_last_name='smith'
WHERE customer_id=5;
```

```
Select customer_first_name, customer_last_name from customer
order by customer_id;
```

```
DELETE FROM customer
where customer_id=5;
```

```
select*from customer;
```