

**w17-p1: create user\_xx in postgresQL server, enter two data, the first one is about your**

The screenshot displays a PostgreSQL client interface with a left-hand sidebar for schema navigation and a main area for SQL queries and their results.

**Schema Navigation (Left Sidebar):**

- Foreign Data Wrappers
- Languages
- Publications
- Schemas (1)
  - public
    - Aggregates
    - Collations
    - Domains
    - FTS Configurations
    - FTS Dictionaries
    - FTS Parsers
    - FTS Templates
    - Foreign Tables
    - Functions
    - Materialized Views
    - Operators
    - Procedures
    - Sequences
    - Tables (4)**
      - book\_98
      - category\_98
      - shop\_98
      - user\_98
    - Trigger Functions
    - Types
    - Views

**Query Editor (Main Area):**

The query editor shows two SQL statements:

```
1 INSERT INTO user_98 (user_id, name, email)
2 VALUES
3 (1, 'htchung', 'htchung@hma.tku.edu.tw'),
4 (2, 'Ray', '409410098@gms.tku.edu.tw')
5
6 /*CREATE TABLE user_98 (
7     user_id int,
8     name varchar(255),
9     email varchar(255),
10     PRIMARY KEY (user_id)
11 )*/
```

**Query Results (Bottom Panel):**

The bottom panel shows the results of the query execution:

```
Data Output Explain Messages Notifications
INSERT 0 2

Query returned successfully in 68 msec.
```

- > 1.3 Sequences
- ✓ Tables (4)
  - > book\_98
  - > category\_98
  - > shop\_98
  - > user\_98
- > Trigger Functions
- > Types
- > Views

Data Output	Explain	Messages	Notifications
	user_id [PK] integer	name character varying (255)	email character varying (255)
1	1	htchung	htchung@gma.tku.edu.tw
2	2	Ray	409410098@gms.tku.edu.tw

**w17-p2: create cart\_xx in postgresQL server, enter five data, one for each category**

- > Domains
- > FTS Configurations
- > FTS Dictionaries
- > FTS Parsers
- > FTS Templates
- > Foreign Tables
- > Functions
- > Materialized Views
- > Operators
- > Procedures
- > 1.3 Sequences
- ✓ Tables (5)
  - > book\_98
  - ✓ cart\_98
    - > Columns
    - ✓ Constraints (3)
      - cart\_98\_pkey
      - cart\_98\_product\_id\_fkey
      - cart\_98\_user\_id\_fkey
    - > Indexes
    - > RLS Policies
    - > Rules
    - > Triggers
  - > category\_98
  - > shop\_98
  - > user\_98
- > Trigger Functions
- > Types

```

crown_98/postgres@PostgreSQL 14
Query Editor  Query History

1  INSERT INTO cart_98 (cart_id, user_id, product_id, mount)
2  VALUES
3  (1,1,6,1),
4  (2,1,15,2),
5  (3,1,20,1),
6  (4,1,28,3),
7  (5,1,35,2)
8
9  /*
10 CREATE TABLE cart_98 (
11     cart_id int,
12     user_id int REFERENCES user_98 ON DELETE SET NULL ON UPDATE CASCADE,
13     product_id int REFERENCES shop_98 ON DELETE SET NULL ON UPDATE CASCADE,
14     mount int,
15     PRIMARY KEY (cart_id)
16 )
17 */

Data Output  Explain  Messages  Notifications

INSERT 0 5

Query returned successfully in 36 msec.

```

Database Explorer showing the structure of the `cart_98` table:

- Tables (5)
  - book\_98
  - cart\_98
    - Columns (4)
      - cart\_id
      - user\_id
      - product\_id
      - mount
    - Constraints (3)
      - cart\_98\_pkey
      - cart\_98\_product\_id\_fkey
      - cart\_98\_user\_id\_fkey
    - Indexes
    - RLS Policies
    - Rules
    - Triggers
  - category\_98
  - shop\_98
  - user\_98
- Trigger Functions

Data Output

	cart_id [PK] integer	user_id integer	product_id integer	mount integer
1	1	1	6	1
2	2	1	15	2
3	3	1	20	1
4	4	1	28	3
5	5	1	35	2

**w17-p3: give query to get related data for cart info shown in ejs**

1.3 Sequences

Tables (5)

- book\_98
- cart\_98
  - Columns
  - Constraints
  - Indexes
  - RLS Policies
  - Rules
  - Triggers
- category\_98
- shop\_98
  - Columns
  - Constraints
  - Indexes
  - RLS Policies
  - Rules
  - Triggers
- user\_98**
  - Columns
  - Constraints
  - Indexes
  - RLS Policies
  - Rules
  - Triggers
- Trigger Functions
- Types
- Views

Query Editor Query History

```

1 SELECT C.cart_id, U.name as user_name, S.name as product_name, price, amount
2 FROM cart_98 as C, shop_98 as S, user_98 as U
3 WHERE C.user_id = U.user_id and C.product_id = S.id

```

Data Output Explain Messages Notifications

	cart_id		user_name		product_name		price		amount
	integer		character varying (255)		character varying (45)		real		integer
1	1	1	htchung		Brown Brim		25		1
2	2	2	htchung		Black Jean Shearling		125		2
3	3	3	htchung		Adidas NMD		220		1
4	4	4	htchung		Blue Tanktop		25		3
5	5	5	htchung		Camo Down Vest		325		2

## w17-p4: insert data in order to violate the key constraints, foreign key constraints

1.3 Sequences

Tables (5)

- book\_98
- cart\_98
  - Columns (4)**
    - cart\_id
    - user\_id
    - product\_id
    - amount
  - Constraints
  - Indexes

Query Editor Query History

```

1 INSERT INTO cart_98 (cart_id, user_id, product_id, amount)
2 VALUES
3 (1,3,6,1)
4

```

Data Output Explain Messages Notifications

ERROR: duplicate key value violates unique constraint "cart\_98\_pkey"  
 DETAIL: Key (cart\_id)=(1) already exists.  
 SQL state: 23505

Procedures

1.3 Sequences

Tables (5)

book\_98

cart\_98

Columns (4)

cart\_id

user\_id

product\_id

amount

Constraints

Indexes

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Query EditorQuery History

1

INSERT INTO cart\_98 (cart\_id, user\_id, product\_id, amount)

2

VALUES

3

(6, 3, 6, 1)

4

Data OutputExplainMessagesNotifications

ERROR: insert or update on table "cart\_98" violates foreign key constraint "cart\_98\_user\_id\_fkey"  
DETAIL: Key (user\_id)=(3) is not present in table "user\_98".  
SQL state: 23503

Procedures

1.3 Sequences

Tables (5)

book\_98

cart\_98

Columns (4)

cart\_id

user\_id

product\_id

amount

Constraints

Indexes

crown\_98/postgres@PostgreSQL 14

Query EditorQuery History

1

INSERT INTO cart\_98 (cart\_id, user\_id, product\_id, amount)

2

VALUES

3

(6, 1, 5, 1)

4

Data OutputExplainMessagesNotifications

ERROR: insert or update on table "cart\_98" violates foreign key constraint "cart\_98\_product\_id\_fkey"  
DETAIL: Key (product\_id)=(5) is not present in table "shop\_98".  
SQL state: 23503

w17-p5.1: test ON UPDATE CASCADE

- > Procedures
- > 1.3 Sequences
- ✓ Tables (5)
  - > book\_98
  - ✓ cart\_98
    - ✓ Columns (4)
      - cart\_id
      - user\_id
      - product\_id
      - amount
    - > Constraints
    - > Indexes
    - > RLS Policies
    - > Rules
    - > Triggers
  - > category\_98
  - ✓ shop\_98
    - ✓ Columns (6)
      - id
      - name
      - cat\_id
      - price
      - remote\_url
      - local\_url

crown\_98/postgres@PostgreSQL 14

Query Editor Query History

```
1 SELECT * FROM public.user_98
2 ORDER BY user_id ASC
```

Data Output Explain Messages Notifications

	user_id [PK] integer	name character varying (255)	email character varying (255)
1	1	htchung	htchung@gma.tku.edu.tw
2	5	Ray	409410098@gms.tku.edu.tw

- > Procedures
- > 1.3 Sequences
- ✓ Tables (5)
  - > book\_98
  - ✓ cart\_98
    - ✓ Columns (4)
      - cart\_id
      - user\_id
      - product\_id
      - amount
    - > Constraints
    - > Indexes
    - > RLS Policies
    - > Rules
    - > Triggers
  - > category\_98
  - ✓ shop\_98
    - ✓ Columns (6)
      - id
      - name
      - cat\_id
      - price
      - remote\_url
      - local\_url
    - > Constraints
    - > Indexes
    - > RLS Policies
    - > Rules

crown\_98/postgres@PostgreSQL 14

Query Editor

Query History

```

1  SELECT * FROM public.cart_98
2  ORDER BY cart_id ASC

```

Data Output

Explain


Messages

Notifications

	cart_id [PK] integer	user_id integer	product_id integer	amount integer
1	1	1	6	1
2	2	1	15	2
3	3	1	20	1
4	4	1	28	3
5	5	1	35	2
6	6	1	6	1
7	7	5	10	1
8	8	5	20	2

**w17-p5.2: test ON DELETE SET NULL**

- > Procedures
- > 1.3 Sequences
- ✓ Tables (5)
  - > book\_98
  - ✓ cart\_98
    - ✓ Columns (4)
      - cart\_id
      - user\_id
      - product\_id
      - amount
    - > Constraints
    - > Indexes
    - > RLS Policies
    - > Rules
    - > Triggers
  - > category\_98
  - ✓ shop\_98
    - ✓ Columns (6)
      - id
      - name
      - cat\_id
      - price
      - remote\_url

 crown\_98/postgres@PostgreSQL 14

Query Editor   Query History

```
1  SELECT * FROM public.user_98
2  ORDER BY user_id ASC
```

Data Output   Explain   Messages   Notifications

	user_id [PK] integer	name character varying (255)	email character varying (255)
1	1	htchung	htchung@gmail.tku.edu.tw
2	5	Ray	409410098@gmail.tku.edu.tw



- > Procedures
- > 1.3 Sequences
- ✓ Tables (5)
  - > book\_98
  - ✓ cart\_98
    - Columns (4)
      - cart\_id
      - user\_id
      - product\_id
      - amount
    - > Constraints
    - > Indexes
    - > RLS Policies
    - > Rules
    - > Triggers
  - > category\_98
  - ✓ shop\_98
    - Columns (6)
      - id
      - name
      - cat\_id
      - price
      - remote\_url
      - local\_url
    - > Constraints
    - > Indexes
    - > RLS Policies
    - > Rules

crown\_98/postgres@PostgreSQL 14

Query Editor

Query History

```

1  SELECT * FROM public.cart_98
2  ORDER BY cart_id ASC

```

Data Output

Explain

Messages

Notifications

	cart_id [PK] integer	user_id integer	product_id integer	amount integer
1	1	1	6	1
2	2	1	15	2
3	3	1	20	1
4	4	1	28	3
5	5	1	35	2
6	6	1	6	1
7	7	[null]	10	1
8	8	[null]	20	2

**w17-p6: implement /book\_xx/delete/:id**

1102-DB-409410098

controllers

models

Category\_98.js

Shop\_98.js

node\_modules

public

routes

book\_98.js

crown\_98.js

crown2\_98.js

index.js

users.js

utils

database.js

views

book\_98

add\_98.ejs

edit\_98.ejs

index.ejs

crown\_98

crown2\_98

index.ejs

product.ejs

error.ejs

index.ejs

.gitignore

app.js

package-lock.json

package.json

views > book\_98 > index.ejs

<a class="btn btn-success edit" href="/book\_98/edit/<%=data[i].id%>">Edit</a>

<a class="btn btn-danger delete" onclick="return alert('Are You sure?');" href="/book\_98/delete/<%=data[i].id%>">Delete</a>

book\_98.js

routes > book\_98.js > router.get('/delete/:id') callback

// DELETE

router.get('/delete/:id', async (req, res) => {

try{

console.log('delete id',req.params.id);

const query = {

text: 'DELETE FROM book\_98 WHERE id = \$1',

values: [req.params.id]

}

await db.query(query);

res.redirect('/book\_98');

}catch(err){

console.log(error);

}

});

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

delete id 2

GET /book\_98/delete/2 302 102.947 ms - 60

GET /book\_98 200 3.509 ms - 2072

Books

409410098 林品睿

Add Book

Id	Name	Author	Price	Action
1	JavaScript Primers	Brad Traversy	100	<div>EditDelete</div>

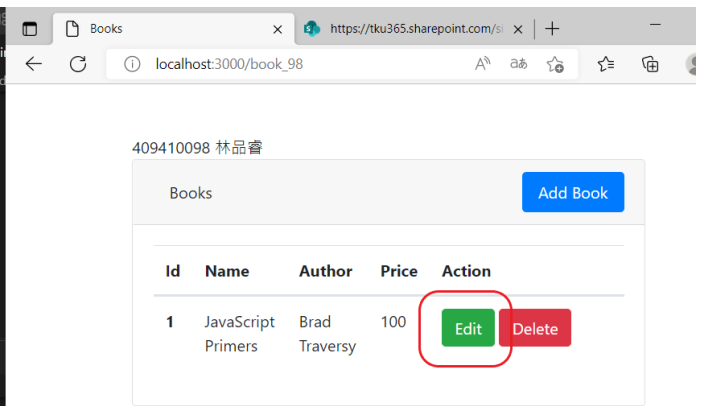
```
$ git log --pretty=format:"%h%x09%an%x09%ad%x09%" --after="2022-06-24"
1090fab ray0630 Sat Jun 25 07:08:29 2022 +0800   ### w17-p6: implement /book_xx/delete/:id
```

```
$ git log --pretty=format:"%h%x09%an%x09%ad%x09%" --after="2022-06-24"
1090fab ray0630 Sat Jun 25 07:08:29 2022 +0800   ### w17-p6: implement /book_xx/delete/:id
```

# w17-p7: implement /book\_xx/update

```
routes > book_98.js > router.post('/update') callback > query > values
49
50 router.get('/edit/:id', async (req, res) => {
51   const id = req.params.id;
52   console.log('id', id);
53   try{
54     const query = {
55       text: `SELECT * FROM book_98 WHERE id = $1`,
56       values: [id]
57     }
58     const results = await db.query(query);
59     data = results.rows;
60     res.render('book_98/edit_98',{
61       id: data[0].id,
62       name: data[0].name,
63       author: data[0].author,
64       price: data[0].price
65     })
66   }catch(err){
67     console.log(err);
68   }
69 });
```

```
edit_98.ejs M
48
49 <div class="btn btn-success edit">
50   <a href="/book_98/edit/<%=data[i].id%>">edit</a>
51 </div>
52
53 <div class="btn btn-danger delete">
54   onclick="return alert('Are You sure?')"
55   href="/book_98/delete/<%=data[i].id%>"
56   >Delete</a>
57 </div>
```



```
routes > book_98.js > router.post('/update') callback > query > values
49
50 router.get('/edit/:id', async (req, res) => {
51   const id = req.params.id;
52   console.log('id', id);
53   try{
54     const query = {
55       text: `SELECT * FROM book_98 WHERE id = $1`,
56       values: [id]
57     }
58     const results = await db.query(query);
59     data = results.rows;
60     res.render('book_98/edit_98',{
61       id: data[0].id,
62       name: data[0].name,
63       author: data[0].author,
64       price: data[0].price
65     })
66   }catch(err){
67     console.log(err);
68   }
69 });
```

```
edit_98.ejs M
19
20 <form action="/book_98/update" method="post">
21   <div class="form-group">
22     <input type="hidden" class="form-control" name="id" value="<%= id %>" autocomplete="off">
23   </div>
24   <div class="form-group">
25     <label>Name:</label>
26     <input type="text" class="form-control" name="name" value="<%= name %>" autocomplete="off">
27   </div>
28   <div class="form-group">
29     <label>Author:</label>
30     <input type="text" class="form-control" name="author" value="<%= author %>" autocomplete="off">
31   </div>
32   <div class="form-group">
33     <label>Price:</label>
34     <input type="text" class="form-control" name="price" value="<%= price %>" autocomplete="off">
35   </div>
36   <div class="btn btn-success update">
37     <a href="/book_98/edit/<%=data[i].id%>">edit</a>
38   </div>
39   <div class="btn btn-danger delete">
40     onclick="return alert('Are You sure?')"
41     href="/book_98/delete/<%=data[i].id%>"
42     >Delete</a>
43   </div>
```

## w17-LAST-log

```
$ git log --pretty=format:"%h%x09%an%x09%ad%x09%" --after="2022-06-24"
92b1101 ray0630 Sat Jun 25 07:59:02 2022 +0800 w17-p7: implement /book_xx/update
1090fab ray0630 Sat Jun 25 07:08:29 2022 +0800 ### w17-p6: implement /book_xx/delete/:id
```

```
$ git log --pretty=format:"%h%x09%an%x09%ad%x09%s" --after="2022-06-24"
92b1101 ray0630 Sat Jun 25 07:59:02 2022 +0800 w17-p7: implement /book_xx/update
1090fab ray0630 Sat Jun 25 07:08:29 2022 +0800 ### w17-p6: implement /book_xx/delete/:id
```