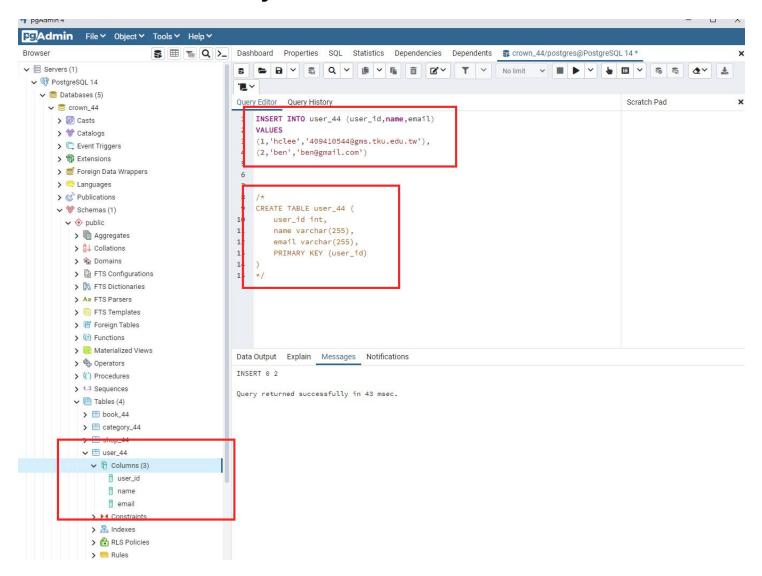# w17-p1: create user_xx in postgreSQL server, enter two data, the first one is about your

Data Output columns: user_id [PK] integer, name character varying (255), email character varying (255)

	user_id [PK] integer	name character varying (255)	email character varying (255)
1	1	hclee	409410544@gms.tku.edu.tw
2	2	ben	ben@gmail.com

w17-p2: create cart_xx in postgreSQL server, enter five data, one for each category


```
1  INSERT INTO cart_44 (cart_id, user_id,product_id,amount)
2  VALUES
3  (1,1,6,6),
4  (2,1,15,4),
5  (3,1,20,8),
6  (4,1,28,3),
7  (5,1,35,7)
8
9
10
11 /* CREATE TABLE cart_44 (
12    cart_id int,
13    user_id int REFERENCES user_44 ON DELETE SET NULL ON UPDATE CASCADE,
14    product_id int REFERENCES shop_44 ON DELETE  SET NULL ON UPDATE CASCADE,
15    amount int,
16    PRIMARY KEY (cart_id)
17 )
18 */
```

Data Output   Explain   Messages   Notifications

INSERT 0 5

Query returned successfully in 32 msec.

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

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

Screenshot 1

Left panel (Object Explorer):
- Aggregates
- Collations
- Domains
- FTS Configurations
- FTS Dictionaries
- Aa FTS Parsers
- FTS Templates
- Foreign Tables
- Functions
- Materialized Views
- Operators
- Procedures
- 1..3 Sequences
- Tables (5)
  - book_44
  - cart_44
  - category_44
  - shop_44
  - user_44
    - Columns (3)
      - user_id
      - name
      - email
    - Constraints
    - Indexes
    - RLS Policies
    - Rules
    - Triggers
- Trigger Functions
- Types
- Views

Query Editor | Query History

```sql
1  INSERT INTO cart_44 (cart_id, user_id,product_id,amount)
2  VALUES
3  (1,3,6,6)
```

Data Output | Explain | Messages | Notifications

```
ERROR:  duplicate key value violates unique constraint "cart_44_pkey"
DETAIL:  Key (cart_id)=(1) already exists.
SQL state: 23505
```

Screenshot 2

Left panel (Object Explorer):
- FTS Configurations
- FTS Dictionaries
- Aa FTS Parsers
- FTS Templates
- Foreign Tables
- Functions
- Materialized Views
- Operators
- Procedures
- 1..3 Sequences
- Tables (5)
  - book_44
  - cart_44
  - category_44
  - shop_44
  - user_44
    - Columns (3)
      - user_id
      - name
      - email
    - Constraints
    - Indexes
    - RLS Policies
    - Rules

Query Editor | Query History   Scrat

```sql
1  INSERT INTO cart_44 (cart_id, user_id,product_id,amount)
2  VALUES
3  (6,3,6,6)
```

Data Output | Explain | Messages | Notifications

```
ERROR:  insert or update on table "cart_44" violates foreign key constraint "cart_44_user_id_fkey"
DETAIL:  Key (user_id)=(3) is not present in table "user_44".
SQL state: 23503
```

w17-p5.1: test ON UPDATE CASCASE

Browser

> FTS Dictionaries
> Aa FTS Parsers
> FTS Templates
> Foreign Tables
> Functions
> Materialized Views
> Operators
> Procedures
> 1..3 Sequences
∨ Tables (5)
    > book_44
    ∨ cart_44
        ∨ Columns (4)
            cart_id
            user_id
            product_id
            amount
        ∨ ►◄ Constraints (3)
            cart_44_pkey
            cart_44_product_id_fkey
            cart_44_user_id_fkey
        > Indexes
        > RLS Policies
        > Rules
        > Triggers
    > category_44
    > shop_44
    > user_44
> Trigger Functions
> Types
> Views
> Subscriptions

public.cart_44/...   public.user_44/crown_44/postgres@PostgreSQL 14

No limit

Query Editor   Query History

```
1   SELECT * FROM public.user_44
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	hclee	409410544@gms.tku.edu.tw
2	5	ben	ben@gmail.com

w17-p5.2: test ON DELETE SET NULL

Query Editor — Query History

```sql
1  SELECT * FROM public.user_44
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	hclee	409410544@gms.tku.edu.tw
2	5	ben	ben@gmail.com

Data Output | Explain | Messages | Notifications

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

w17-p6: implement /book_xx/delete/:id

w17-p7: implement /book_xx/update

File Edit Selection View Go Run Terminal Help

EXPLORER

∨ 1102-DB2-409410544
  > bin
  ∨ classdemo
    > md
    > w14
    > w16
    > w17
  > controllers
  ∨ md
    > w13
    > w14
    > w16
    ∨ w17
      w17.md
  > models
  > node_modules
  > public
  ∨ routes
    book_44.js   M
    crown_44.js
    crown2_44.js
    index.js
    users.js
  > utils
  ∨ views
    ∨ book_44
      add_44.ejs
      edit_44.ejs   M
      index.ejs   M
    > crown_44
    > crown2_44
    error.ejs
    index.ejs
    .gitignore
    app.js
    crown_44.tar
    package-lock.json
    package.json

w17.md   index.ejs M   book_44.js M

views > book_44 > index.ejs > html > body > div.container > div.card > div.card-body >

```
29      <div class="card-body">
30        <% if(data.length) { %>
31        <table class="table">
32          <thead>
33            <tr>
34              <th scope="col">Id</th>
35              <th scope="col">Name</th>
36              <th scope="col">Author</th>
37              <th scope="col">Price</th>
38              <th width="200px">Action</th>
39            </tr>
40          </thead>
41          <tbody>
42            <% for(var i = 0; i< data.length; i++) { %>
43            <tr>
44              <th scope="row"><%= data[i].id %></th>
45              <td><%= data[i].name%></td>
46              <td><%= data[i].author%></td>
47              <td><%= data[i].price%></td>
48              <td>
49                <a
50                  class="btn btn-success edit"
51                  href="/book_44/edit/<%=data[i].id%>"
52                  >Edit</a
53                >
54                <a
55                  class="btn btn-danger delete"
56                  onclick="return alert('Are You sure?')"
57                  href="/book_44/delete/<%=data[i].id%>"
58                  >Delete</a
59                >
60              </td>
61            </tr>
62            <% } %>
63          </tbody>
64        </table>
65        <% } %>
66
67        <!-- if result is empty -->
68        <% if(!data.length) { %>
69        <p class="text-center">No book found!</p>
```

routes > book_44.js > router.post('/update') callback

```
4       const db = require('../utils/database');
5
6       /* READ */
7   >   router.get('/',   async (req, res) => { ···
8   >   });
26
27  >   router.get('/create',   (req, res) => { ···
37  >   });
38
39      router.get('/edit/:id', async(req,res) =>{
40        const id = req.params.id;
41        console.log('id',id);
42        try{
43          const query = {
44            text:`SELECT * FROM book_44 WHERE id = $1;`,
45            values:[id]
46          }
47          const results = await db.query(query);
48          data = results.rows;
49          res.render('book_44/edit_44',{
50            id:data[0].id,
51            name:data[0].name,
52            author:data[0].author,
53            price:data[0].price
54          });
55        }catch(err){
56          console.log(err);
57        }
58      }
59
60  >   });
61
62      //CREATE
63
64  >   router.post('/create', async(req, res) => {···
83  >   });
84
85      //UPDATE
86
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL

```
GET /book_44/edit/3 200 2.123 ms - 1957
POST /book_44/update 302 1.534 ms - 60
GET /book_44 304 1.844 ms - -
GET /book_44 304 56.579 ms - -
id 3
GET /book_44/edit/3 304 2.030 ms - -
POST /book_44/update 302 2.396 ms - 60
GET /book_44 200 1.546 ms - 2719
GET /book_44 304 1.266 ms - -
id 3
GET /book_44/edit/3 200 2.117 ms - 1959
POST /book_44/update 302 1.572 ms - 60
GET /book_44 200 1.305 ms - 2717
```

powershell
bash
bash

Ln 96, Col 22   Spaces: 4   UTF-8   CRLF   JavaScript   Go Live   Prettier

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John Smilga	100	Edit Delete