

## APP activity 3: postgresql

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### Part 1) Creating tables (should have four SQL query and four table views)

#### 1. userShippingAddress Table

```
CREATE TABLE userShippingAddress(  
    id SERIAL PRIMARY KEY,  
    address VARCHAR(200),  
    state VARCHAR(20),  
    zip_code char(5)  
);
```

id [PK] integer	address character varying (200)	state character varying (20)	zip_code character
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#### 2. UserOrder Table

```
CREATE TABLE userOrder(  
    id serial PRIMARY KEY,  
    quantity INT NOT NULL,  
    item VARCHAR(255) NOT NULL,  
    totalPrice INT NOT NULL  
);
```

id [PK] integer	quantity integer	item character varying (255)	totalprice integer
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#### 3. userInfo\_Table

```
CREATE TABLE userInfo (  
    id SERIAL PRIMARY KEY,  
    last_name VARCHAR(50) NOT NULL,  
    first_name VARCHAR(50) NOT NULL,  
    userShippingAddress_id INT,  
    userOrder_id INT,  
    FOREIGN KEY (userShippingAddress_id) REFERENCES userShippingAddress(id),  
    FOREIGN KEY (userOrder_id) REFERENCES userOrder(id)  
);
```

id [PK] integer	last_name character varying (50)	first_name character varying (50)	usershippingaddress_id integer	userorder_id integer
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#### 4. userLogin Table

```
CREATE TABLE userLogin (  
  id SERIAL PRIMARY KEY,  
  username VARCHAR(128) NOT NULL UNIQUE,  
  password VARCHAR(128) NOT NULL,  
  userShippingAddress_id INT,  
  userOrder_id INT,  
  userInfo_id INT,  
  FOREIGN KEY (userInfo_id) REFERENCES userInfo(id),  
  FOREIGN KEY (userShippingAddress_id) REFERENCES userShippingAddress(id),  
  FOREIGN KEY (userOrder_id) REFERENCES userOrder(id)  
);
```

id	username	password	usershippingaddress_id	userorder_id	userinfo_id
[PK] integer	character varying (128)	character varying (128)	integer	integer	integer

### Part 2) Entering data in each table

#### 1. userShippingAddress Table

```
INSERT INTO userShippingAddress  
  (id, address, state, zip_code)  
VALUES  
  (1, '800 follow st.', 'NY', '10001'),  
  (2, '320 water st.', 'CT', '12005'),  
  (3, '9 Gotham st.', 'GC', '15200');
```

	id	address	state	zip_code
	[PK] integer	character varying (200)	character varying (20)	character
1	1	800 follow st.	NY	10001
2	2	320 water st.	CT	12005
3	3	9 Gotham st.	GC	15200

#### 2. UserOrder Table

```
INSERT INTO UserOrder  
  (id, quantity, item, totalprice)  
VALUES  
  (1, 2, 'Wooden Boat', 120),  
  (2, 1, 'Rabbit', 25),  
  (3, 5, 'Cars', 180),  
  (4, 3, 'Bubbles', 36);
```

	id [PK] integer	quantity integer	item character varying (255)	totalprice integer
1	1	2	Wooden Boat	120
2	2	1	Rabbit	25
3	3	5	Cars	180
4	4	3	Bubbles	36

### 3. userInfo\_Table

**INSERT INTO** userInfo

(id, last\_name, first\_name, userShippingAddress\_id, userOrder\_id)

**VALUES**

(1, 'Pan', 'Peter', 1, 1),  
 (2, 'Key', 'Alice', 2, 2),  
 (3, 'Wayne', 'Bruce', 3, 3),  
 (4, 'Li', 'Xiaojin', NULL, 4);

	id [PK] integer	last_name character varying (50)	first_name character varying (50)	usershippingaddress_id integer	userorder_id integer
1	1	Pan	Peter	1	1
2	2	Key	Alice	2	2
3	3	Wayne	Bruce	3	3
4	4	Li	Xiaojin	[null]	4

### 4. userLogin Table

**INSERT INTO** userLogin

(id, username, password, userShippingAddress\_id, userOrder\_id, userInfo\_id)

**VALUES**

(1, 'Peterpan', 'Peter123', 1, 1, 1),  
 (2, 'Alicekey', 'Key123', 2, 2, 2),  
 (3, 'Batman', 'Guess123', 3, 3, 3);

	id [PK] integer	username character varying (128)	password character varying (128)	usershippingaddress_id integer	userorder_id integer	userinfo_id integer
1	1	Peterpan	Peter123	1	1	1
2	2	Alicekey	Key123	2	2	2
3	3	Batman	Guess123	3	3	3

### Part 3) print data:

1. username and total price

```
select username,totalprice
FROM userLogin
inner join UserOrder
on userLogin.userOrder_id=UserOrder.id
```

	username character varying (128)	totalprice integer
1	Peterpan	120
2	Alicekey	25
3	Batman	180

2. last name, state, and order items

```
select last_name,state,item
from userInfo
left join UserOrder
on userInfo.userOrder_id=UserOrder.id
left join userShippingAddress
on userInfo.userShippingAddress_id=userShippingAddress.id
```

	last_name character varying (50)	state character varying (20)	item character varying (255)
1	Pan	NY	Wooden Boat
2	Key	CT	Rabbit
3	Wayne	GC	Cars
4	Li	[null]	Bubbles

3. first name, address, zip code, quantity, items, and total price

```
select first_name,address,zip_code,quantity,item,totalprice
from userInfo
left join UserOrder
on userInfo.userOrder_id=UserOrder.id
left join userShippingAddress
on userInfo.userShippingAddress_id=userShippingAddress.id
```

	first_name character varying (50)	address character varying (200)	zip_code character	quantity integer	item character varying (255)	totalprice integer
1	Peter	800 follow st.	10001	2	Wooden Boat	120
2	Alice	320 water st.	12005	1	Rabbit	25
3	Bruce	9 Gotham st.	15200	5	Cars	180
4	Xiaojin	[null]	[null]	3	Bubbles	36