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W4D1 Homework

1. Design the tables in database, attention their relationship and the constraint (primary key, foreign key)
   * CREATE TABLE **USERS** (user\_id number(4) primary key not null, first\_name varchar(50), last\_name varchar(50), email varchar(50));
   * CREATE TABLE **ORDERS** (order\_id number(4) primary key not null, user\_id number(4), foreign key(user\_id) references USERS(user\_id), orderItem\_id number(4), foreign key (orderItem\_id) references ORDERITEM(orderItem\_id), order\_quantity integer, order\_total decimal(10,2), order\_date date);
   * CREATE TABLE **ORDERITEM** (orderItem\_id number(4) primary key not null, orderItem\_name varchar(50), orderItem\_price decimal(10,2), orderItem\_desc varchar(100), orderItem\_quantity integer);
2. What are DQL, DML, DDL and DCL for Database? And what their commands? And give examples for each one based the above tables “User”, “Order” and “OrderItem”.

**DQL (Data Query Language) – used to retrieve data**

* Select

1. **Users**

* SELECT \* FROM USERS;

1. **Orders**

* SELECT U.first\_name, U.last\_name, O.orderItem\_name, O.orderItem\_price, order\_total, order\_quantity FROM ORDERS, USERS U, ORDERITEM O WHERE order\_date = to\_date('10-07-2016', 'dd-mm-yyyy') AND U.user\_id=ORDERS.user\_id AND O.orderItem\_id = ORDERS.orderItem\_id;

1. **OrderItem**

* SELECT orderItem\_name, orderItem\_desc FROM ORDERITEM WHERE orderItem\_id = 2;

**DML (Data Manipulation Language) – refers to the data inside the table**

* Insert

1. **Users**

* INSERT INTO USERS (user\_id, first\_name, last\_name, email) VALUES (1, 'Jerica', 'Flores', 'jericaflores427@gmail.com');
* INSERT INTO USERS (user\_id, first\_name, last\_name, email) VALUES (2, 'Jaybee', 'Vergajo', 'jaybee@yahoo.com');
* INSERT INTO USERS (user\_id, first\_name, last\_name, email) VALUES (3, 'Melvin', 'Yu', 'melvin@gmail.com');

1. **Orders**

* INSERT INTO ORDERS (order\_id, user\_id, orderItem\_id, order\_quantity, order\_total, order\_date) VALUES (1, 1, 1, 2, 14.00, to\_date('04-07-2016', 'dd-mm-yyyy'));
* INSERT INTO ORDERS (order\_id, user\_id, orderItem\_id, order\_quantity, order\_total, order\_date) VALUES (2, 2, 2, 3, 90.00, to\_date('04-10-2016', 'dd-mm-yyyy'));
* INSERT INTO ORDERS (order\_id, user\_id, orderItem\_id, order\_quantity, order\_total, order\_date) VALUES (3, 3, 3, 2, 28.00, to\_date('10-07-2016', 'dd-mm-yyyy'));

1. **OrderItem**

* INSERT INTO ORDERITEM (orderItem\_id, orderItem\_name, orderItem\_price, orderItem\_desc, orderItem\_quantity) VALUES (1, 'Pencil', 7.00, 'no 2 monggol', 5);
* INSERT INTO ORDERITEM (orderItem\_id, orderItem\_name, orderItem\_price, orderItem\_desc, orderItem\_quantity) VALUES (2, 'Bag', 30.00, 'Blue Shoulder Bag', 4);
* INSERT INTO ORDERITEM (orderItem\_id, orderItem\_name, orderItem\_price, orderItem\_desc, orderItem\_quantity) VALUES (3, 'Lipstick', 14.00, 'Pink Glossy Lipstick', 7);
* Update

1. **Users**

* UPDATE USERS SET first\_name = 'Manny' WHERE user\_id = 2;

1. **Orders**

* UPDATE ORDERS SET order\_quantity = 10 WHERE order\_id = 3;

1. **OrderItem**

* UPDATE ORDERITEM SET orderItem\_price = 20.00 WHERE orderItem\_id = 3;
* Delete

1. **Users**

* DELETE FROM USERS WHERE user\_id = 3;

1. **Orders**

* DELETE FROM ORDERS WHERE order\_id = 3;

1. **OrderItem**

* DELETE FROM ORDERITEM WHERE orderItem\_id =3;

**DDL (Data Definition Language) – defines the data structure**

* Create
* CREATE TABLE **USERS** (user\_id number(4) primary key not null, first\_name varchar(50), last\_name varchar(50), email varchar(50));
* CREATE TABLE **ORDERS** (order\_id number(4) primary key not null, user\_id number(4), foreign key(user\_id) references USERS(user\_id), orderItem\_id number(4), foreign key (orderItem\_id) references ORDERITEM(orderItem\_id), order\_quantity integer, order\_total decimal(10,2), order\_date date);
* CREATE TABLE **ORDERITEM** (orderItem\_id number(4) primary key not null, orderItem\_name varchar(50), orderItem\_price decimal(10,2), orderItem\_desc varchar(100), orderItem\_quantity integer);
* Alter

1. **Users**

- ALTER TABLE USERS

ADD phone\_no number(11);

**b. Orders**

- ALTER TABLE ORDERS

DROP COLUMN order\_quantity;

**c. OrderItem**

- ALTER TABLE ORDERITEM

ADD orderItem\_place varchar(50);

* Drop

1. **Users**

- DROP TABLE USERS;

**b. Orders**

- DROP TABLE ORDERS;

**c. OrderItem**

- DROP TABLE ORDERITEM;

**DCL (Data Control Language)**

* Grant

GRANT CONNECT, RESOURCE TO tutor;

* Rollback

ROLLBACK;

* Commit

COMMIT;