W4D1 Homework

1. Design the tables in database, attention their relationship and the constraint (primary key, foreign key)

**USER**

CREATE TABLE USERS (

user\_id NUMBER NOT NULL PRIMARY KEY ,

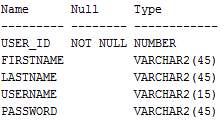
firstName VARCHAR2(45),

lastName VARCHAR2(45),

userName VARCHAR2(15),

password VARCHAR2(45)

);

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**ORDER**

CREATE TABLE ORDER1 (

order\_id NUMBER NOT NULL PRIMARY KEY,

user\_id NUMBER NOT NULL,

order\_date DATE,

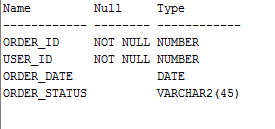
order\_status VARCHAR2(45),

CONSTRAINT fk\_user\_id

FOREIGN KEY (user\_id)

REFERENCES users(user\_id)

);



**ORDER ITEM**

CREATE TABLE ORDERITEM (

orderItem\_id NUMBER NOT NULL PRIMARY KEY,

order\_id NUMBER NOT NULL,

order\_name VARCHAR2(45),

order\_quantity NUMBER(10),

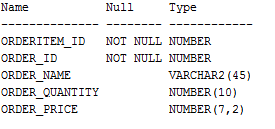
order\_price DECIMAL (7,2),

CONSTRAINT fk\_order\_id

FOREIGN KEY (order\_id)

REFERENCES order1(order\_id)

);



1. 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** – SQL Statements that retrieves the data from the database.

**Command:** SELECT

**Example:**

***SELECT***

SELECT \* FROM USER

SELECT \* FROM ORDER1

SELECT \* FROM ORDERITEM

**DML** – These are SQL Statements that allows changing data within the database. INSERT is for adding values to the table, Update is for updating the values of the rows, and Delete is for deleting the values of the table.

**Command**: INSERT, UPDATE, DELETE

**Examples**:

***INSERT***

INSERT INTO USERS (user\_id, firstName,lastName,userName,password) VALUES (1,'Pauline Joyce', 'Racelis', 'pauracelis','password');

INSERT INTO ORDER1 (order\_id,user\_id,order\_date,order\_status) VALUES (1,1,'07-JULY-2016','DELIVERED');

INSERT INTO ORDERITEM (orderItem\_id,order\_id,order\_name,order\_quantity,order\_price) VALUES (1,1,'iPhone 6s', 5, 6800);

***UPDATE***

UPDATE users set firstName = 'Pau' where user\_id= 1;

UPDATE order1 set order\_date = '01-JULY-2016' where order\_id= 1;

UPDATE ORDERITEM set order\_quantity = '1' where order\_name = 'iPhone 6s';

***DELETE***

DELETE from USERS;

DELETE from order1;

DELETE from ORDERITEM;

**DDL** – Are SQL Statements that allows the users to create, alter, and drop schema objects.

**Command:** Create, Drop, Alter

**Examples:**

***CREATE***

CREATE TABLE USERS (

user\_id NUMBER NOT NULL PRIMARY KEY ,

firstName VARCHAR2(45),

lastName VARCHAR2(45),

userName VARCHAR2(15),

password VARCHAR2(45)

);

CREATE TABLE ORDER1 (

order\_id NUMBER NOT NULL PRIMARY KEY,

user\_id NUMBER NOT NULL,

order\_date DATE,

order\_status VARCHAR2(45),

CONSTRAINT fk\_user\_id

FOREIGN KEY (user\_id)

REFERENCES users(user\_id)

);

CREATE TABLE ORDERITEM (

orderItem\_id NUMBER NOT NULL PRIMARY KEY,

order\_id NUMBER NOT NULL,

order\_name VARCHAR2(45),

order\_quantity NUMBER(10),

order\_price DECIMAL (7,2),

CONSTRAINT fk\_order\_id

FOREIGN KEY (order\_id)

REFERENCES order1(order\_id)

);

***DROP***

DROP table USERS;

DROP table ORDER1;

DROP table ORDERITEM;

***ALTER***

ALTER table users add (address varchar2(45));

ALTER table order1 add (shipping\_address varchar2(45));

ALTER table ORDERITEM add (order\_desc varchar2(45));

**DCL** – Are SQL Statements that grants the user for privileges, rollback changes, and commit the changes.

**Command:** Grant, Rollback, Commit

**Examples:**

***GRANT***

CREATE USER pau IDENTIFIED BY oracle;

GRANT CONNECT,RESOURCE TO pau;

***ROLLBACK***

alter table users add (address varchar2(10));

ROLLBACK

INSERT INTO USERS (user\_id, firstName,lastName,userName,password) VALUES (1,'Pau', 'Racelis', 'pauracelis','password1');

ROLLBACK

alter table ORDERITEM modify (order\_desc varchar2(45));

ROLLBACK

***COMMIT***

alter table users add (address varchar2(10));

COMMIT

INSERT INTO USERS (user\_id, firstName,lastName,userName,password) VALUES (1,'Pau', 'Racelis', 'pauracelis','password1');

COMMIT

alter table ORDERITEM modify (order\_desc varchar2(45));

COMMIT