1.

The SQL DML provides the ability to query information from the database and to insert tuples into, delete tuples from, and modify tuples in the database.

The SQL DDL provides commands for defining relation schemas, deleting relations, and modifying relation schemas.

DML commands

a) CREATE TABLE, ALTER TABLE, DROP TABLE

b) SELECT, INSERT, UPDATE, DELETE

Example 1:

DDL commands:

CREATE TABLE database university\_db  
 tablespace teacher;

AFTER TABLE instructor   
 alter column name type varchar(100) ;

DROP databases university\_db;

DML commands:

INSERT INTO deportment database (name, building)  
 VALUES( ‘BS’ , ‘KBTU’ );

DELETE  
 from department\_child

SELECT\*  
 from department;

UPDATE table\_name SET column1 = value1 , column2 = value2 , …  
 WHERE condition;

2.CREATE TABLE customers  
( ID INT PRIMARY KEY,

full\_name VARCHAR(50),  
from\_date DATE PRIMARY KEY, to\_date DATE

);  
CREATE TABLE products(

ID varchar PRIMARY KEY,  
name varchar , is \_paid PRIMARY KEY, description TEXT ,price double precision ;

);  
CREATE TABLE orders(

code INT PRIMARY KEY, customer\_id INT,   
total\_sum double precision, is\_paid BOOL;

);  
CREATE TABLE order\_items (

order code INT , product\_id varchar, constraint id PRIMARY KEY(order code , product\_id), foreign key (order\_code) references orders (code) , foreign key (product\_id) references products (id)   
to\_date DATE,

);  
CREATE TABLE dept\_emp(

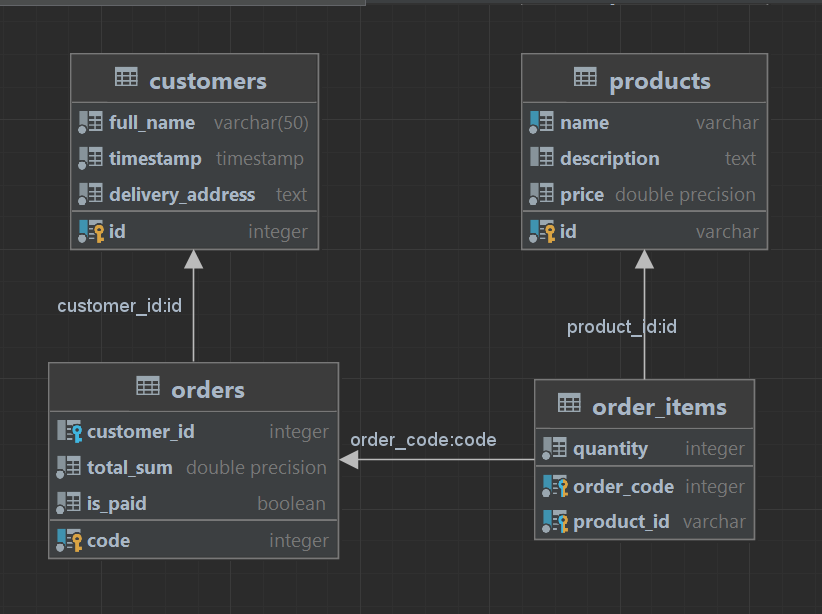
code INT PRIMARY KEY, dept\_no CHAR(4) PRIMARY KEY, from\_date DATE,  
to\_date DATE

);  
CREATE TABLE departments(

dept\_no CHAR(4) PRIMARY KEY, dept\_name VARCHAR(40)

);

|  |  |
| --- | --- |
| |  | | --- | | ); | |



3. a) CREATE TABLE students (  
full\_name VARCHAR(30),  
birth\_date DATE,  
average\_grade FLOAT,

age INT,  
birth\_date DATE,  
gender CHAR(10),  
gpa INT,

phone\_number INT, social\_category VARCHAR(50)

);  
b) CREATE TABLE instructors  
( full\_name VARCHAR(30),

languages VARCHAR(100), experience INT, possibility\_of\_having\_lessons BOOL

);  
c)CREATE TABLE student\_relatives  
( full\_name VARCHAR(30),

address VARCHAR(20), phone\_number INT, position CHAR(10)

);  
d)CREATE TABLE student social data ( school VARCHAR(20),

graduation\_data DATA, address VARCHAR(20), region VARCHAR(15), country CHAR(10),

gpa INT,  
honors VARCHAR(50)

);

4. INSERT into customer VALUES(‘Jack’, ‘Databases’ , ‘Ilon ‘) ; INSERT into order\_items VALUES  
(10247, 500000, 2015, 2022)

UPDATE title SET

UPDATE customers set full\_name = “Ilom Mask’ where id = 75;

DELETE gender FROM employees

DELETE from customers where id = 100 ;