Lab 2

1.

DDL – Data Definition Language which is used to define data structures. (create, alter, drop, rename)

DML – Data Manipulation Language which is used to manipulate data itself. (insert, update, delete, select)

Difference :

1. DDL is used to create the database schema and can define them while DML is used to add or update the data.

2. DDL basically define the column(attributes) while DML add or update the row(tuple) of the table.

a. DDL commands:

1. CREATE DATABASE database\_name;

CREATE TABLE table\_name;

2. ALTER TABLE table\_name

ADD (A1 datatype,

. . .

An datatype);

3. ALTER TABLE table\_name

DROP COLUMN column\_name

4. ALTER TABLE table\_name

RENAME TO new\_table\_name;

b. DML commands

1. INSERT INTO table\_name (column1, column2) VALUES(value1, value2);

2. UPDATE table\_name SET column1=value1, column2=value2

WHERE condition;

3. DELETE FROM table\_name WHERE some\_condition;

4. SELECT column\_name(\*) FROM table\_name

2.

CREATE TABLE products(  
 id varchar,  
 name varchar,  
 description text,  
 price double precision,  
 primary key (id)  
);  
  
CREATE TABLE customers(  
 id int,  
 full\_name varchar(50),  
 timestamp timestamp,  
 delivery\_address text,  
 primary key (id)  
);  
  
CREATE TABLE orders(  
 code int,  
 customer\_id int,  
 total\_sum double precision,  
 is\_paid boolean,  
 primary key (code),  
 foreign key (customer\_id) references customers  
);  
  
CREATE TABLE order\_items(  
 order\_code int,  
 product\_id varchar,  
 quantity int,  
 foreign key (order\_code) references orders,  
 foreign key (product\_id) references products  
);

3.

CREATE TABLE students(  
 full\_name varchar(100),  
 age int,  
 birth\_date date,  
 gender varchar(6),  
 av\_grade float(2),  
 info\_about\_yourself text,  
 need\_for\_DMIS varchar(3),  
 additional\_info text  
);

CREATE TABLE instructors(  
 full\_name varchar(100),  
 speaking\_languages text,  
 work\_experience text,  
 poss\_having\_remote boolean  
);

CREATE TABLE lesson\_participants(  
 lesson\_title text,  
 teaching\_ins varchar(100),  
 studying\_students text,  
 room\_number int  
);

4.

Insert data to tables:

insert into products (id , name , description, price) values ('337620759', 'Fennel - Seeds', 'vivamus in felis eu sapien cursus vestibulum proin eu mi nulla ac enim', 23);  
insert into products (id , name , description, price) values ('866623089', 'Doilies - 10, Paper', 'in hac habitasse platea dictumst aliquam augue quam sollicitudin vitae', 43);  
insert into products (id , name , description, price) values ('160562207', 'Juice - Orange, 341 Ml', 'hendrerit at vulputate vitae nisl aenean lectus pellentesque eget nunc donec quis orci eget orci vehicula condimentum', 26);  
insert into products (id , name , description, price) values ('636124746', 'Tea - Apple Green Tea', 'parturient montes nascetur ridiculus mus vivamus vestibulum sagittis sapien cum', 41);  
  
insert into customers (id, full\_name, timestamp, delivery\_address) values ('337646959', 'Philipa Kingsford', '2021-08-09 13:57:40', '72 Macpherson Pass');  
insert into customers (id, full\_name, timestamp, delivery\_address) values ('866684689', 'Stacie Agutter', '2021-08-09 14:14:59', '82826 Thierer Park');  
insert into customers (id, full\_name, timestamp, delivery\_address) values ('146562207', 'Morna Fandrey', '2021-09-09 15:58:34', '6453 Golf Street');  
insert into customers (id, full\_name, timestamp, delivery\_address) values ('635894746', 'Ainslee Parcall', '2021-09-12 17:07:58', '283 Banding Lane');  
  
insert into orders (code, customer\_id , total\_sum, is\_paid ) values (31, '337646959', 64, false);  
insert into orders (code, customer\_id , total\_sum, is\_paid ) values (13, '866684689', 41, false);  
insert into orders (code, customer\_id , total\_sum, is\_paid ) values (71, '146562207', 96, false);  
insert into orders (code, customer\_id , total\_sum, is\_paid ) values (87, '635894746', 95, true);  
  
insert into order\_items (order\_code, product\_id, quantity) values (31, '337620759', 59);  
insert into order\_items (order\_code, product\_id, quantity) values (13, '866623089', 89);  
insert into order\_items (order\_code, product\_id, quantity) values (71, '160562207', 88);  
insert into order\_items (order\_code, product\_id, quantity) values (87, '636124746', 31);

update data:

update order\_items  
set quantity=97  
where order\_code=71;

delete data:

delete from order\_items where order\_code=87;