

**1. Explain the difference between DDL and DML, give the following examples:**

- a. at least 3 DDL commands;
- b. at least 4 DML commands.

DDL is used to define the structure of database and how data is stored (create, change and delete tables, etc.), DML is used to manipulate data in database (add, delete, change, select, etc.)

- a. DDL commands: CREATE, ALTER, DROP
- b. DML commands: INSERT, UPDATE, DELETE, SELECT

**2. Write SQL statements to create tables in the figure below:**

```
drop table customers;

create table customers
(
    id            serial primary key,
    full_name     varchar(100),
    timestamp     timestamp,
    delivery_addres text
);

delete from customers
where full_name = 'John';

alter table customers
    add column age integer;

insert into customers (full_name, age, timestamp, delivery_addres)
VALUES ('John', 44, current_timestamp, 'jbjs street, 55');

select *
from customers;

Create table products
(
    id            varchar primary key,
    name          varchar(100),
    description    text,
    price         double precision
);

create table orders
(
    code          serial primary key,
    customer_id   integer references customers (id),
    total_sum     double precision,
    is_paid       boolean
);

create table order_items
(
    order_code     integer references orders (code),
    product_id     varchar references products (id),
    quantity       integer
);
```

```
create table student
(
    full_name          varchar(100) primary key,
    age                integer,
    birthdate          date,
    gender              varchar(100),
    av_grade            double precision,
    need_of_dormitory  boolean,
    info_about_ys       text,
    additional_info     text
);

create table instructor
(
    full_name          varchar(100) primary key,
    languages           varchar(100),
    work_experience      text,
    online_lessons      boolean
);

create table lesson_participants
(
    lesson_title        varchar(100),
    room_number          integer,
    lesson_student       varchar references student (full_name),
    lesson_instructor    varchar references instructor (full_name)
);
```