Laboratory work 2

1. Data Definition Language (DDL) - is a standard for commands that define the different structures in a database. DDL statements create, modify, and remove database objects such as tables, indexes, and users.

DML statements are SQL statements that manipulate data. DML stands for Data Manipulation Language. The SQL statements that are in the DML class are INSERT, UPDATE and DELETE. Some people also lump the SELECT statement in the DML classification.

    a. `create` table table_name ();

      `alter` table name

       action [];
     `drop` table name cascade;

    b. `insert` into table_name ()

       values();

     `update` table_name set column_name = ...;

     `delete` from table_name;
     `returning` value.

2.

```sql
create table customers (
id integer not null primary key, full_name varchar(50) not null ,
timestamp timestamp not null , delivery_address text not null , constraint
production unique(id)

);

create table orders (
code integer unique primary key not null unique , customer_id integer
references customers (id),
total_sum double precision not null check ( total_sum > 0 ) ,

is_paid boolean not null );

create table order_items (
order_code integer not null references orders (code) unique ,
product_id varchar not null unique references products (id) ,
```

```sql
quantity integer not null check ( quantity > 0 ) );

create table products (
id varchar not null unique primary key ,
name varchar not null unique ,
description text ,
price double precision not null check ( price > 0 )

)
```

3.

```sql
create database KBTU; create table students (

full_name text primary key,
age integer,
birth_date integer,
gender text ,
average_grade double precision, information_about_yourself text,
the_need_for_a_dormitory boolean, additional_info text

);

create table instructors (
full_name text primary key , speaking_languages text,
work_experience text, possibility_of_having_remote_lessons boolean

);

create table participants (
lesson_title text,
teaching_instructor text references instructors (full_name),
studying_students text references students (full_name), room_number
integer

);
```

4. insert into description values ('for kids');
update products set price = 6000 where price = 5000; delete from products
where description = 'for kids';