Durmakhan Bagdat lab2

1. DML and DDL
   DML: SELECT, IINSERT, UPDATE, DELETE
   DDL: CREATE, ALTER, DROP
   DDL (data definition language) describes database structure
   DML (data manipulation language) works with data

a) CREATE DATABASE aa;
   DROP DATABASE j_example;
   CREATE TABLE gg(
   Id integer, name VARCHAR(255);
   );
   ALTER TABLE gg ADD COLUMN firstname VARCHAR(255);

b) select * from gg;
   INSERT INTO gg VALUES(200000, 'Bagdat', 'baga');
   DELETE FROM gg WHERE name='Bagdat';
   UPDATE gg SET id = 15354312 WHERE name = 'Bagdat';

2.

```
create table customers(
   id integer PRIMARY KEY,
   full_name varchar(50) NOT NULL,
   timestamp timestamp NOT NULL,
   delivery_address text NOT NULL
);
create table orders(
   code integer PRIMARY KEY,
   customer_id integer references customers(id),
   total_sum double precision NOT NULL CHECK (total_sum > 0),
   is_paid bool NOT NULL
);
create table order_items(
   order_code integer references orders(code),
   product_id varchar references products(id),
   quantity integer NOT NULL CHECK ( quantity > 0 ),
   PRIMARY KEY (order_code, product_id)
);
create table products(
   id varchar PRIMARY KEY,
   name varchar UNIQUE NOT NULL,
   description text,
   price double precision NOT NULL CHECK (price > 0)
);

create table students(
    full_name varchar PRIMARY KEY,
    birt_date date NOT NULL,
    age integer NOT NULL CHECK (age > 0),
    average_grade double precision NOT NULL CHECK ( average_grade > 0),
    information text NOT NULL,
    need_dormitory boolean NOT NULL,
    additional_info text NOT NULL
);
create table instructors(
   full_name varchar PRIMARY KEY,
   speaking_language varchar NOT NULL,
   work_experience integer NOT NULL CHECK ( work_experience >= 0),
   remote_possibility boolean NOT NULL
);
```

```
create table lessen_participants(
   lesson_title varchar NOT NULL,
   instructor varchar(50) not null references instructors(full_name),
   student varchar(50) NOT NULL references students (full_name),
   room_number int NOT NULL CHECK (room_number > 0)
);
```

4.

INSERT INTO products(id, name, description, price) values (2,'mommy','daddy', 1250);

UPDATE products SET name = 'durak' WHERE id = '2';

DELETE from products WHERE name = 'mommy';