

# Database - Kabyl Kanat

## 1. DML and DDL

DML: SELECT, INSERT, UPDATE, DELETE

DDL: CREATE, ALTER, DROP

```
--DML examples;
select * from customers;
insert into customers(id, fullname) values(1, 'Erzhan');
update customers set fullname='Kanat' where fullname='Erzan';
delete from customers where fullname='Kanat';
```

```
--DDL examples;
create table customers(
    id int unique ,
    full_name varchar(50) not null,
    timestamp timestamp not null,
    delivery_address text not null ,
    primary key (id)
);
drop table customers;
alter table customers drop column email;
alter table customers add column email;
```

## 2.

```
create table customers(
    id int unique ,
    full_name varchar(50) not null,
    timestamp timestamp not null,
    delivery_address text not null ,
    primary key (id)
);
create table products(
    id varchar(40) unique not null,
    name varchar(40) not null unique ,
    description text,
    price double precision not null check (price > 0),
    primary key (id)
);
create table orders(
```

```

    code int unique not null ,
customer_id int references customers(id),
total_sum double precision not null check (total_sum > 0),
is_paid bool not null,
primary key (code)
);

create table order_items(
    order_code int unique not null references orders(code),
product_id varchar not null unique references products(id),
quantity int not null check (quantity > 0),
primary key (order_code,product_id)
);

insert into customers(id, full_name, timestamp, delivery_address) VALUES (1, 'Arman', '200
8-01-01 00:00:01', 'Kazybek street, 175');
insert into customers(id, full_name, timestamp, delivery_address) VALUES (2, 'Kanat', '200
8-02-04 00:40:01', 'Kazybek street, 180');
select * from customers;
insert into orders(code, customer_id, total_sum, is_paid) values (2, 2, 50.5, true);
insert into products(id, name, description, price) values (1, 'apple', 'delicious', 81.9);
insert into order_items(order_code, product_id, quantity) VALUES (2, 1, 1000);
select * from orders;

select * from products;

select * from order_items;

```

3.

```

create table students(
    fullname varchar(50) unique not null,
    age int check(age > 0),
    birthdate date not null,
    gender varchar(10) not null,
    average_grade double precision check (average_grade >= 0),
    information text,
    dormitory boolean not null,
    additional_info text,
    primary key (fullname)
);

create table instructor(
    fullname varchar(50) unique not null,
    language varchar(20) not null,
    experience int check (experience >= 0),
    remote_possibility boolean not null,
    primary key (fullname)
);

```

```

create table participants(
    lesson_title varchar(100) not null,
    instructor varchar(50) not null references instructor(fullname),
    student varchar(50) not null references students(fullname),
    room_number int check ( room_number > 0)
);

insert into students(fullname, age, birthdate, gender, average_grade, dormitory, additional_info) VALUES ('Arman', 18, '1992-01-09', 'Snake', 4.32, true, 'No matter');

select * from students;
insert into instructor(fullname, language, experience, remote_possibility) values ('Kanat K.', 'english', 100, false);
select * from instructor;

insert into participants(lesson_title, instructor, student, room_number) values('Database', 'Kanat K.', 'Arman', 312);
select * from participants;
delete from participants where instructor='Kanat K.';

update instructor set language='russian' where language='english';

```

4.

```

insert into products(id, name, description, price) values (1, 'apple', 'delicious', 81.9);
update customers set id=4 where id=5;
delete from customers where fullname='Kanat';

```