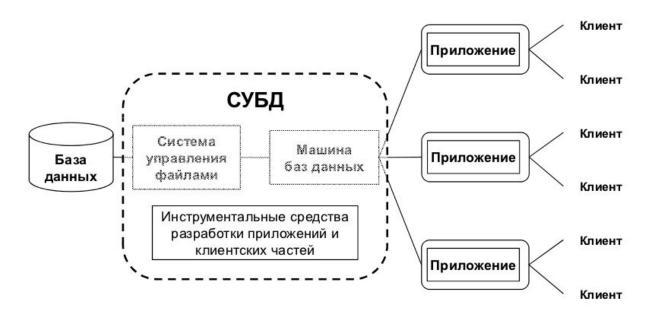
## DataBase. EP21

A database (DB) is a program that allows you to store and process information in a structured way. The database is a separate independent program that is not part of the programming language. Any information can be retrieved from the database in order to access it later.

## database types

```
hierarchical;
object or object-oriented;
object-relational;
relational;
network;
functional.
```

## Database operation



## difference between database and flat file

The first difference is that the database stores data in an ordered and specially organized form, which implies complex storage of heterogeneous information.

The second difference is that the database stores not only data, but also a description of the data structure (meta-data). Meta-data is stored separately from the data itself in the so-called dictionary (system catalog) of data. So, any DBMS can work with different data sets, since the data storage structure is available when reading this data. In a traditional file system, how data is stored is up to each program that stores and processes data. The data structure is built into the access program and cannot be read by other programs.