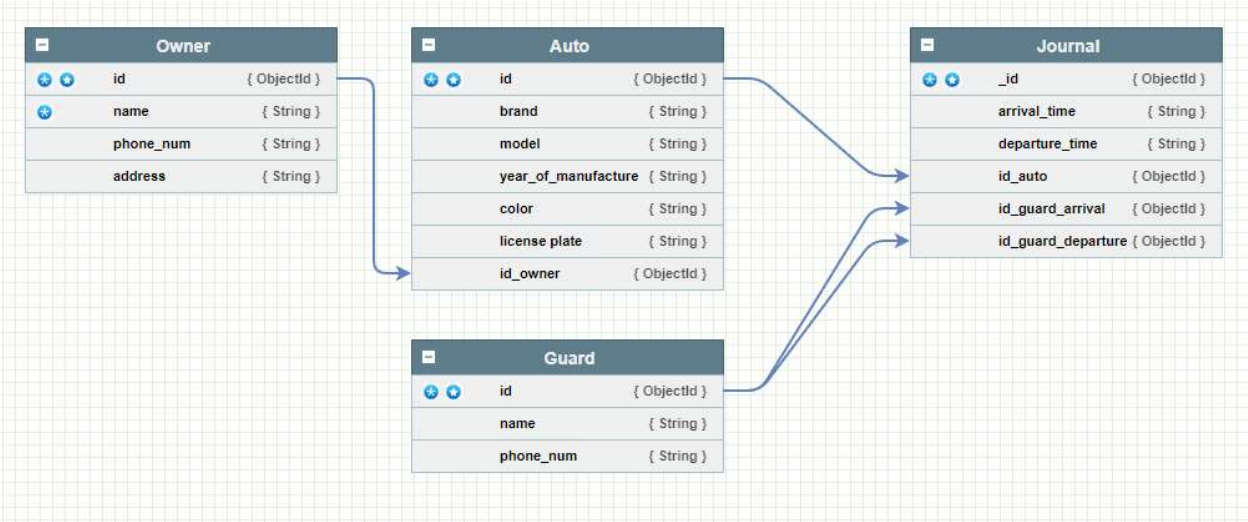
Модель данных



Создание бд

```
postgres=# CREATE DATABASE garage;
CREATE DATABASE
postgres=# \c garage;
You are now connected to database "garage" as user "postgres".
```

Создание таблиц

```
garage=# CREATE TABLE Owner (
garage(# id SERIAL PRIMARY KEY,
garage(# name VARCHAR(255),
garage(# address VARCHAR(255),
garage(# phone_num VARCHAR(255)
garage(# );
CREATE TABLE
```

```
garage=# CREATE TABLE Auto (
garage(# id SERIAL PRIMARY KEY,
garage(# brand VARCHAR(255),
garage(# model VARCHAR(255),
garage(# year_of_manuf INTEGER,
garage(# color VARCHAR(255),
garage(# license_plate VARCHAR(20),
garage(# id_owner INTEGER REFERENCES Owner(id)
garage(# );
CREATE TABLE
```

```
garage=# CREATE TABLE Guard (
garage(# id SERIAL PRIMARY KEY,
garage(# name VARCHAR(255),
garage(# phone_num VARCHAR(255)
garage(# );
CREATE TABLE
```

```
garage=# CREATE TABLE Journal (
garage(# id SERIAL PRIMARY KEY,
garage(# arrival_time TIMESTAMP,
garage(# departure_time TIMESTAMP,
garage(# id_auto INTEGER REFERENCES Auto(id),
garage(# id_guard_arrival INTEGER REFERENCES Guard(id),
garage(# id_guard_departure INTEGER REFERENCES Guard(id)
garage(# );
CREATE TABLE
```

Создание последовательностей

```
garage=# CREATE SEQUENCE seq_owner_id START WITH 1 INCREMENT BY 1 NO MAXVALUE NO CYCLE;
CREATE SEQUENCE
garage=# CREATE SEQUENCE seq_auto_id START WITH 1 INCREMENT BY 1 NO MAXVALUE NO CYCLE;
CREATE SEQUENCE
garage=# CREATE SEQUENCE seq_guard_id START WITH 1 INCREMENT BY 1 NO MAXVALUE NO CYCLE;
CREATE SEQUENCE
garage=# CREATE SEQUENCE seq_journal_id START WITH 1 INCREMENT BY 1 NO MAXVALUE NO CYCLE;
CREATE SEQUENCE
```

Вывод таблиц и последовательностей

```
garage=# \d
              List of relations
 Schema |      Name      |   Type   |  Owner
--------+----------------+----------+----------
 public | auto           | table    | postgres
 public | auto_id_seq    | sequence | postgres
 public | guard          | table    | postgres
 public | guard_id_seq   | sequence | postgres
 public | journal        | table    | postgres
 public | journal_id_seq | sequence | postgres
 public | owner          | table    | postgres
 public | owner_id_seq   | sequence | postgres
 public | seq_auto_id    | sequence | postgres
 public | seq_guard_id   | sequence | postgres
 public | seq_journal_id | sequence | postgres
 public | seq_owner_id   | sequence | postgres
(12 rows)
```

Заполнение таблиц и вывод данных из них

```
garage=# INSERT INTO Owner (name, address, phone_num) VALUES
('Ivan Ivanov', 'Lenin Street, 10', '8-800-555-35-35'),
('Petr Petrov', 'Gagarin Street, 5', '8-800-555-35-36'),
('Aleksey Alekseev', 'Pushkin Street, 22', '8-800-555-35-37');
INSERT 0 3
garage=# select * from Owner
garage-# ;
 id |       name       |      address       |    phone_num
----+------------------+--------------------+-----------------
  1 | Ivan Ivanov      | Lenin Street, 10   | 8-800-555-35-35
  2 | Petr Petrov      | Gagarin Street, 5  | 8-800-555-35-36
  3 | Aleksey Alekseev | Pushkin Street, 22 | 8-800-555-35-37
(3 rows)
```

```
garage=# INSERT INTO Auto (brand, model, year_of_manuf, color, license_plate, id_owner) VALUES
garage-# ('BMW', 'X5', 2020, 'White', 'O000OO', 1),
garage-# ('Toyota', 'Camry', 2015, 'Red', 'O001OO', 1),
garage-# ('Audi', 'A6', 2018, 'Black', 'P000PP', 2),
garage-# ('Lexus', 'R6', 2019, 'White', 'A000AA', 3);
INSERT 0 4
garage=# select * from Auto
garage-# ;
 id | brand  | model | year_of_manuf | color | license_plate | id_owner
----+--------+-------+---------------+-------+---------------+----------
  1 | BMW    | X5    |          2020 | White | O000OO        |        1
  2 | Toyota | Camry |          2015 | Red   | O001OO        |        1
  3 | Audi   | A6    |          2018 | Black | P000PP        |        2
  4 | Lexus  | R6    |          2019 | White | A000AA        |        3
(4 rows)
```

```
garage=# INSERT INTO Guard (name, phone_num) VALUES
garage-# ('Sergey Sergeev', '8-800-555-36-35'),
garage-# ('Andrey Andreev', '8-800-555-36-36');
INSERT 0 2
garage=# select * from Guard;
 id |      name      |    phone_num
----+----------------+-----------------
  1 | Sergey Sergeev | 8-800-555-36-35
  2 | Andrey Andreev | 8-800-555-36-36
(2 rows)
```

```
garage=# INSERT INTO Journal (arrival_time, departure_time, id_auto, id_guard_arrival, id_guard_
departure) VALUES
('2023-04-20 20:00', '2023-04-20 09:00', 1, 1, 2),
('2023-04-20 16:00', '2023-04-20 14:30', 2, 2, 2),
('2023-04-20 15:00', '2023-04-19 23:20', 3, 2, 2),
('2023-04-19 10:00', '2023-03-19 06:00', 4, 1, 1);
INSERT 0 4
```

```
 id |    arrival_time     |   departure_time    | id_auto | id_guard_arrival | id_guard_departure
----+---------------------+---------------------+---------+------------------+--------------------
  1 | 2023-04-20 20:00:00 | 2023-04-20 09:00:00 |       1 |                1 |                  2
  2 | 2023-04-20 16:00:00 | 2023-04-20 14:30:00 |       2 |                2 |                  2
  3 | 2023-04-20 15:00:00 | 2023-04-19 23:20:00 |       3 |                2 |                  2
  4 | 2023-04-19 10:00:00 | 2023-03-19 06:00:00 |       4 |                1 |                  1
(4 rows)
```