

ФГБОУ ВО

«Заполярный государственный университет им. Н.М. Федоровского»

Кафедра __ИСиТ__

Специальность __ИЭ-21__

ОТЧЕТ

о выполнении лабораторной работы

Выполнил:

Толкачева П.В.

Дата:

« 23 » апреля 2023 г.

Лабораторная работа №2

Тема: SQL. Таблицы.

Цель работы: Получение практических навыков работы с СУБД и языком SQL (создание и изменения таблиц).

Задание:

В созданной на предыдущей лабораторной работе базе данных дополните таблицы ограничениям CHECK, DEFAULT, NOT NULL, UNIQUE, PRIMARY KEY, FOREIGN KEY;

внести изменения в схему базы, используя операторы ALTER TABLE; и DROP TABLE;

создайте новую таблицу (не менее трех полей);

добавьте в нее новый столбец;

удалите второй столбец из новой таблицы;

удалите все таблицу; Отчет по лабораторной работе должен содержать:

Фамилию и номер группы учащегося, задание

Коды операций

Принтскрины всех выполненных операторов

Код:

```
ALTER TABLE employees ADD PRIMARY KEY (id_emp);
```

```
ALTER TABLE customers ADD PRIMARY KEY (passport_num);
```

```
ALTER TABLE orders ADD PRIMARY KEY (id_order);
```

```
ALTER TABLE hotel ADD PRIMARY KEY (id_hotel);
```

```
ALTER TABLE tour ADD PRIMARY KEY (id_tour);
```

```
ALTER TABLE excursions ADD PRIMARY KEY (id_ex);
```

```
ALTER TABLE route ADD PRIMARY KEY (id_route);
```

```
ALTER TABLE tour ADD CONSTRAINT FK_id_hotel FOREIGN KEY(id_hotel)
REFERENCES Hotel(id_hotel);
```

```
ALTER TABLE route ADD CONSTRAINT FK_id_tour FOREIGN KEY(id_tour)
REFERENCES Tour(id_tour);
```

```
ALTER TABLE Orders ADD CONSTRAINT FK_id_emp FOREIGN
KEY(id_emp) REFERENCES Employees(id_emp);
```

```
ALTER TABLE Orders ADD CONSTRAINT FK_passport_num FOREIGN
KEY(passport_num) REFERENCES Customers(passport_num);
```

```
ALTER TABLE Orders ADD CONSTRAINT FK_id_tour FOREIGN
KEY(id_tour) REFERENCES Tour(id_tour);
```

```
ALTER TABLE ex_in_hotel ADD CONSTRAINT FK_id_hotel FOREIGN
KEY(fk_id_hotel) REFERENCES hotel(id_hotel);
```

```
ALTER TABLE ex_in_hotel ADD CONSTRAINT FK_id_ex FOREIGN
KEY(fk_id_ex) REFERENCES excursions(id_ex);
```

```
ALTER TABLE orders ADD UNIQUE (passport_num);
```

```
CREATE TABLE tickets
```

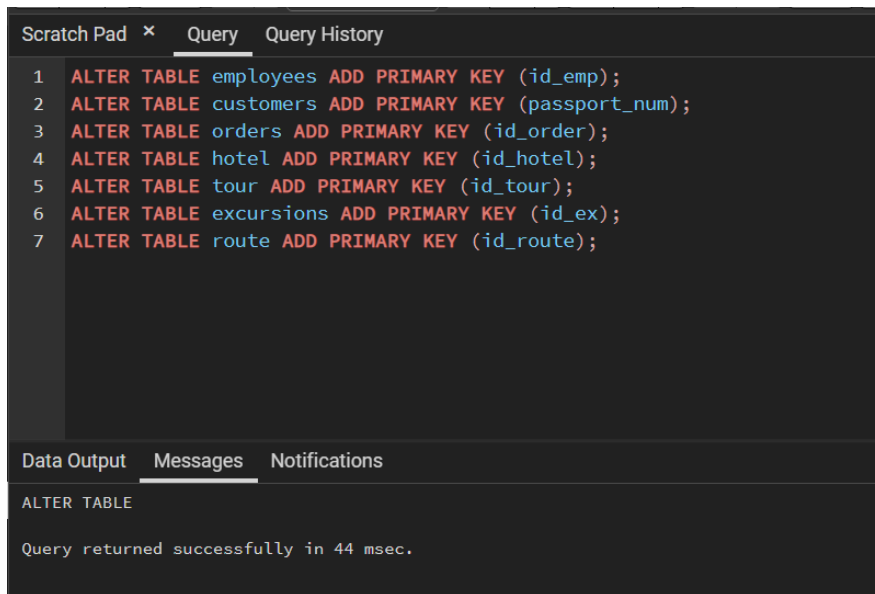
```
(
    num_tickets int PRIMARY KEY,
    f_name varchar(20),
    s_name varchar(20)
);
```

ALTER TABLE tickets ADD tour_date date NOT NULL;

ALTER TABLE tickets DROP COLUMN s_name;

DROP TABLE tickets;

Скриншоты выполнения работы:

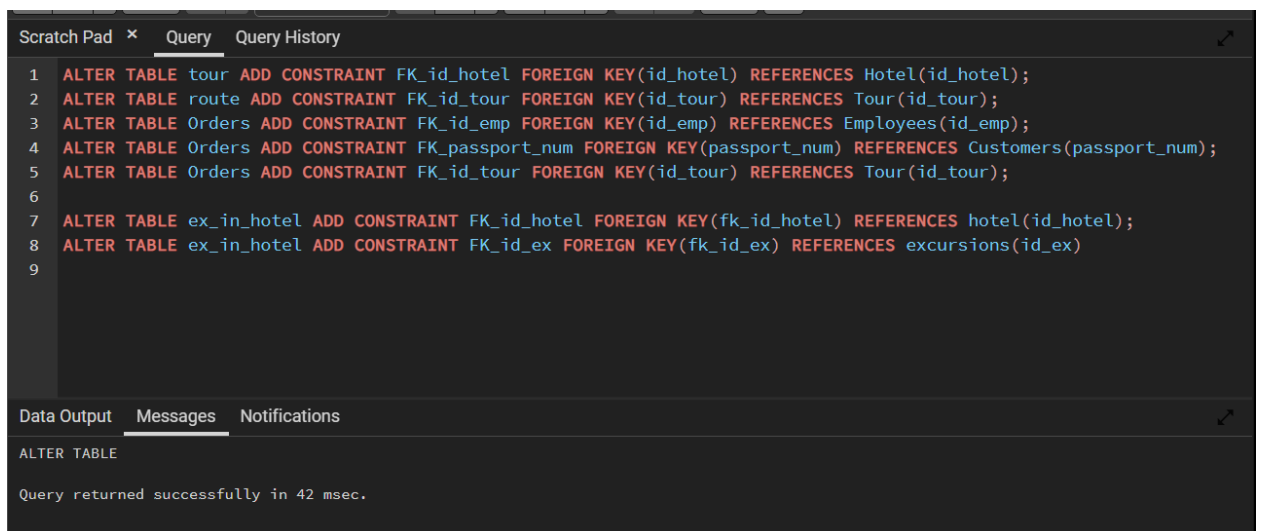


The screenshot shows a SQL IDE window with a dark theme. The 'Query' tab is active, displaying a list of seven SQL statements to add primary keys to various tables. The 'Messages' tab is also visible at the bottom, showing the successful execution of the first statement.

```
1 ALTER TABLE employees ADD PRIMARY KEY (id_emp);
2 ALTER TABLE customers ADD PRIMARY KEY (passport_num);
3 ALTER TABLE orders ADD PRIMARY KEY (id_order);
4 ALTER TABLE hotel ADD PRIMARY KEY (id_hotel);
5 ALTER TABLE tour ADD PRIMARY KEY (id_tour);
6 ALTER TABLE excursions ADD PRIMARY KEY (id_ex);
7 ALTER TABLE route ADD PRIMARY KEY (id_route);
```

ALTER TABLE

Query returned successfully in 44 msec.



The screenshot shows a SQL IDE window with a dark theme. The 'Query' tab is active, displaying a list of nine SQL statements to add foreign key constraints between different tables. The 'Messages' tab is also visible at the bottom, showing the successful execution of the first statement.

```
1 ALTER TABLE tour ADD CONSTRAINT FK_id_hotel FOREIGN KEY(id_hotel) REFERENCES Hotel(id_hotel);
2 ALTER TABLE route ADD CONSTRAINT FK_id_tour FOREIGN KEY(id_tour) REFERENCES Tour(id_tour);
3 ALTER TABLE Orders ADD CONSTRAINT FK_id_emp FOREIGN KEY(id_emp) REFERENCES Employees(id_emp);
4 ALTER TABLE Orders ADD CONSTRAINT FK_passport_num FOREIGN KEY(passport_num) REFERENCES Customers(passport_num);
5 ALTER TABLE Orders ADD CONSTRAINT FK_id_tour FOREIGN KEY(id_tour) REFERENCES Tour(id_tour);
6
7 ALTER TABLE ex_in_hotel ADD CONSTRAINT FK_id_hotel FOREIGN KEY(fk_id_hotel) REFERENCES hotel(id_hotel);
8 ALTER TABLE ex_in_hotel ADD CONSTRAINT FK_id_ex FOREIGN KEY(fk_id_ex) REFERENCES excursions(id_ex)
9
```

ALTER TABLE

Query returned successfully in 42 msec.

Scratch Pad × Query Query History

1 ALTER TABLE orders ADD UNIQUE (passport_num);

Data Output Messages Notifications

ALTER TABLE

Query returned successfully in 38 msec.

Scratch Pad × Query Query History

1 CREATE TABLE tickets
2 (
3 num_tickets int PRIMARY KEY,
4 f_name varchar(20),
5 s_name varchar(20)
6)
7

Data Output Messages Notifications

CREATE TABLE

Query returned successfully in 68 msec.

Query Query History

1 ALTER TABLE tickets ADD tour_date date NOT NULL;

Data Output Messages Notifications

ALTER TABLE

Query returned successfully in 58 msec.

Query

Query History

1

ALTER TABLE tickets DROP COLUMN s_name

Data Output

Messages

Notifications

ALTER TABLE

Query returned successfully in 54 msec.

Query

Query History

1

DROP TABLE tickets

Data Output

Messages

Notifications

DROP TABLE

Query returned successfully in 69 msec.