Федеральное государственное бюджетное образовательное учреждение

высшего образования

«Российский экономический университет им. Г.В. Плеханова»

Московский приборостроительный техникум

Специальность: 09.02.07 Информационные системы и программирование

Квалификация: Программист

Общепрофессиональная дисциплина: ОП 08 Основы проектирования баз данных

МПТ.09.02.07-П.ОП.08.ОПБД.П50-5-20.05.22

Отчёт к практической работе № 5

«Реализация таблиц и ограничений в базе данных».

Тема: Разработка базы данных на примере предметной области «Организация наземных

грузоперевозок». Реализация подсистем: учёт автомобильного парка, организация доставки грузов.

|  |  |
| --- | --- |
| Проверил: | Выполнил: |
| Щаников И.М.\_\_\_\_\_\_\_\_\_\_ | Студент группы |
| (\_\_\_\_\_\_\_\_)\_\_\_\_\_\_\_\_\_\_\_\_\_ | П50-5-20 |
| «\_\_\_»\_\_\_\_\_\_\_\_\_\_\_\_\_2022г. | \_\_\_\_\_\_\_\_\_\_\_\_Атаниязов А.А. |
|  | «\_\_\_»\_\_\_\_\_\_\_\_\_\_\_\_\_2022г. |

2022

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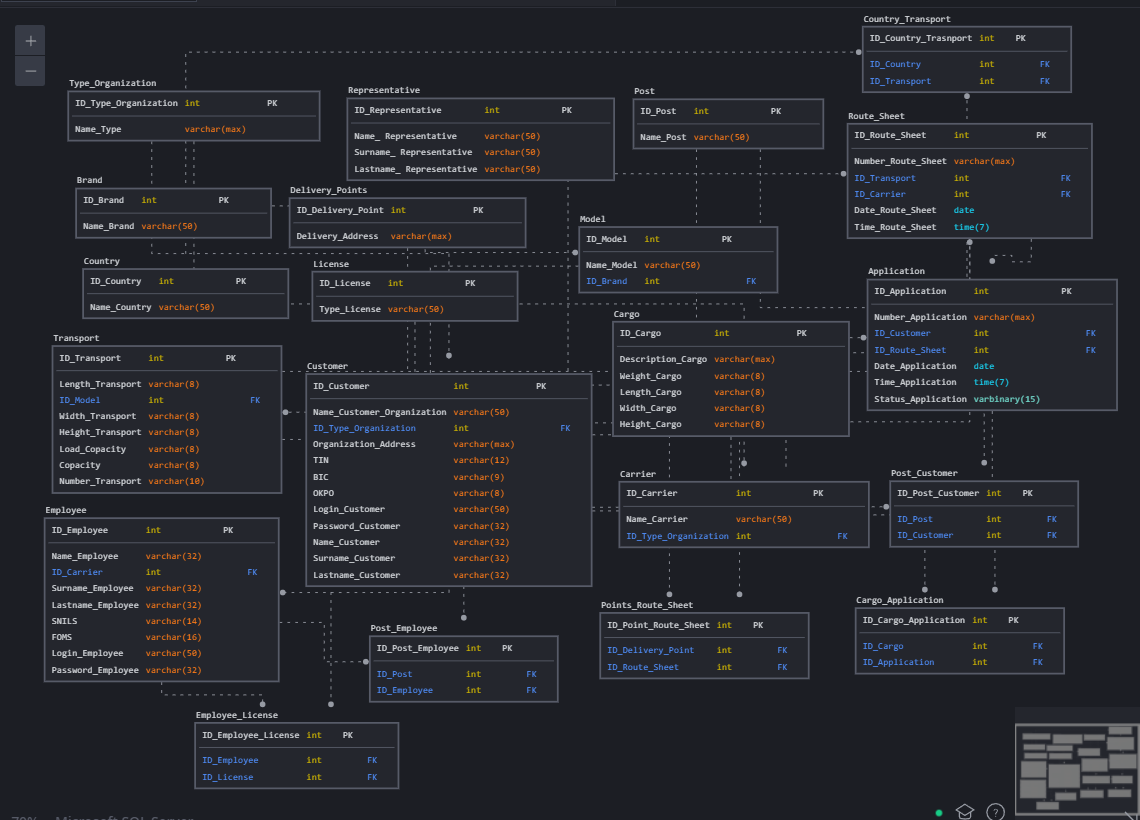
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1. ЦЕЛИ ПРАКТИЧЕСКОЙ РАБОТЫ

На основании даталогической модели данных и словаря данных, разработать структуру таблиц базы данных, на сервере СУБД.

2. ЭТАПЫ ВЫПОЛНЕНИЯ

1) Проект даталогической модели данных, на основании 4 практической работы:



2) Реализация скрипта настройки и создания файла базы данных:

|  |  |
| --- | --- |
| Название объекта | Скрипт объекта |
| Test\_Cargo1 | set ansi\_nulls on  go  set ansi\_padding on  go  set quoted\_identifier on  go  create database [Test\_Cargo1]  go  use [Test\_Cargo1]  go |

3) На основании словаря данных, произвести реализацию родительских таблиц базы данных (Поле с типом данных, Varchar (max), не может быть с ограничением unique – пометить желтым цветом):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ключ | Наименование | Тип данных | Примечание | Скрипт объекта |
| Representative | | | | |
| PK | ID\_Representative | INT | Первичный ключ таблицы «Представитель» | create table [dbo].[Representative]  (  [ID\_Representative] [int] not null identity(1,1),  [Name\_ Representative] [varchar] (50) not null,  [Surname\_ Representative] [varchar] (50) not null,  [Lastname\_ Representative] [varchar] (50) not null,  constraint [PK\_Representative] primary key clustered  ([ID\_Representative] ASC) on [PRIMARY]  )  go |
|  | Name\_ Representative | VARCHAR(50) |  |
|  | Surname\_ Representative | VARCHAR(50) |  |
|  | Lastname\_ Representative | VARCHAR(50) |  |
| Post | | | | |
| PK | ID\_Post | INT | Первичный ключ таблицы «Должность» | create table [dbo].[Post]  (  [ID\_Post] [int] not null identity(1,1),  [Name\_Post] [varchar] (50) not null  constraint [PK\_Post] primary key clustered  ([ID\_Post] ASC) on [PRIMARY],  constraint [UQ\_Name\_Post] unique ([Name\_Post])  )  go |
|  | Name\_Post | VARCHAR(50) | Уникальное поле |
| Delivery\_Points | | | | |
| PK | ID\_Delivery\_Points | INT | Первичный ключ таблицы «Точки доставки» | create table [dbo].[Delivery\_Points]  (  [ID\_Delivery\_Point] [int] not null identity(1,1),  [Delivery\_Address] [varchar] (max) not null  constraint [PK\_Delivery\_Point] primary key clustered  ([ID\_Delivery\_Point] ASC) on [PRIMARY]  )  go |
|  | Delivery\_Addres | VARCHAR(50) | Уникальное поле |
| Brand | | | | |
| PK | ID\_Brand | INT | Первичный ключ таблицы «Марка» | create table [dbo].[Brand]  (  [ID\_Brand] [int] not null identity(1,1),  [Name\_Brand] [varchar] (50) not null  constraint [PK\_Brand] primary key clustered  ([ID\_Brand] ASC) on [PRIMARY],  constraint [UQ\_Name\_Brand] unique ([Name\_Brand])  )  go |
|  | Name\_Brand | VARCHAR(50) | Уникальное поле |
| Type\_Organization | | | | |
| PK | ID\_Type\_Organization | INT | Первичный ключ таблицы «Тип организации» | create table [dbo].[Type\_Organization]  (  [ID\_Type\_Organization] [int] not null identity(1,1),  [Type\_Name] [varchar] (max) not null  constraint [PK\_Type\_Organization] primary key clustered  ([ID\_Type\_Organization] ASC) on [PRIMARY]  )  go |
|  | Name\_Type | VARCHAR(50) | Уникальное поле |
| License | | | | |
| PK | ID\_License | INT | Первичный ключ таблицы «Права» | create table [dbo].[License]  (  [ID\_License] [int] not null identity(1,1),  [Type\_License] [varchar] (10) not null  constraint [PK\_License] primary key clustered  ([ID\_License] ASC) on [PRIMARY],  constraint [UQ\_Type\_License] unique ([Type\_License])  )  go |
|  | Type\_License | VARCHAR(10) | Уникальное поле |
| Cargo | | | | |
| PK | ID\_Cargo | INT | Первичный ключ таблицы «Груз» | create table [dbo].[Cargo]  (  [ID\_Cargo] [int] not null identity(1,1),  [Description\_Cargo] [varchar] (max) not null,  [Weight\_Cargo] [varchar] (8) not null,  [Length\_Cargo] [varchar] (8) not null,  [Width\_Cargo] [varchar] (8) not null,  [Height\_Cargo] [varchar] (8) not null  constraint [PK\_Cargo] primary key clustered  ([ID\_Cargo] ASC) on [PRIMARY],  constraint [CH\_Weight\_Cargo] check ([Weight\_Cargo] like ('[0-9][0-9][0-9]')  or [Weight\_Cargo] like ('[0-9][0-9][0-9][0-9]') or [Weight\_Cargo] like ('[0-9][0-9][0-9][0-9][0-9]')),  constraint [CH\_Length\_Cargo] check ([Length\_Cargo] like ('[0-9][0-9][0-9]')  or [Length\_Cargo] like ('[0-9][0-9][0-9][0-9]') or [Length\_Cargo] like ('[0-9][0-9][0-9][0-9][0-9]')),  constraint [CH\_Width\_Cargo] check ([Width\_Cargo] like ('[0-9][0-9][0-9]')  or [Width\_Cargo] like ('[0-9][0-9][0-9][0-9]') or [Width\_Cargo] like ('[0-9][0-9][0-9][0-9][0-9]')),  constraint [CH\_Height\_Cargo] check ([Height\_Cargo] like ('[0-9][0-9][0-9]')  or [Height\_Cargo] like ('[0-9][0-9][0-9][0-9]') or [Height\_Cargo] like ('[0-9][0-9][0-9][0-9][0-9]'))  )  go |
|  | Description\_Cargo | VARCHAR(MAX) |  |
|  | Weight\_Cargo | VARCHAR(8) |  |
|  | Length\_Cargo | VARCHAR(8) |  |
|  | Width\_Cargo | VARCHAR(8) |  |
|  | Height\_Cargo | VARCHAR(8) |  |
| Country | | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| ID\_Country | INT | Первичный ключ таблицы «Страна» | create table [dbo].[Country]  (  [ID\_Country] [int] not null identity(1,1),  [Name\_Country] [varchar] (50) not null  constraint [PK\_Country] primary key clustered  ([ID\_Country] ASC) on [PRIMARY],  constraint [UQ\_Name\_Country] unique ([Name\_Country])  )  go |
| Name\_Country | VARCHAR(50) | Уникальное поле |

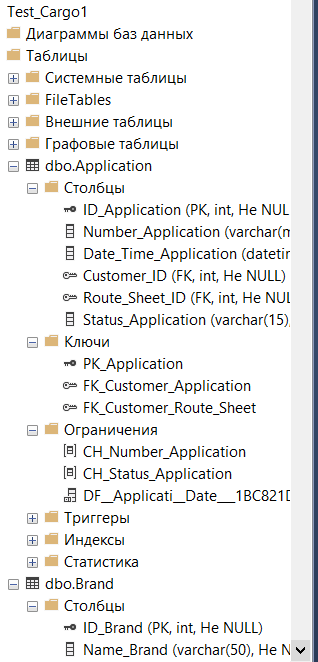
4) На основании словаря данных, произвести реализацию дочерних таблиц с одной связью 1:М:

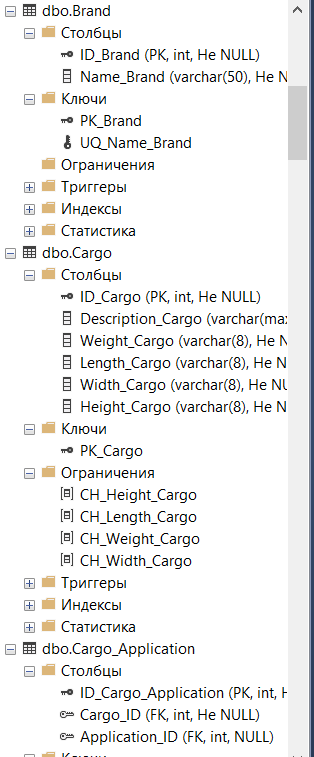
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ключ | Наименование | Тип данных | Примечание | Скрипт объекта |
| Carrier | | | | |
| PK | ID\_Carrier | INT | Первичный ключ таблицы «Перевозчик» | create table [dbo].[Carrier]  (  [ID\_Carrier] [int] not null identity(1,1),  [Name\_Carrier] [varchar] (50) not null,  [Type\_Organization\_ID] [int] not null  constraint [PK\_Carrier] primary key clustered  ([ID\_Carrier] ASC) on [PRIMARY],  constraint [UQ\_Name\_Carrier] unique ([Name\_Carrier]),  constraint [FK\_Type\_Organization\_Carrier] foreign key ([Type\_Organization\_ID])  references [dbo].[Type\_Organization] ([ID\_Type\_Organization])  )  go |
|  | Name\_Carrier | VARCHAR(50) | Уникальное поле |
| FK | Type\_Organization\_ID | INT |  |
| Transport | | | | |
| PK | ID\_Transport | INT | Первичный ключ таблицы «Транспорт» | create table [dbo].[Transport]  (  [ID\_Transport] [int] not null identity(1,1),  [Length\_Transport] [varchar] (8) not null,  [Width\_Transport] [varchar] (8) not null,  [Height\_Transport] [varchar] (8) not null,  [Load\_Copacity] [varchar] (8) not null,  [Copacity] [varchar] (9) not null,  [Number\_Transport] [varchar] (10) not null,  [Model\_ID] [int] not null  constraint [PK\_Transport] primary key clustered  ([ID\_Transport] ASC) on [PRIMARY],  constraint [CH\_Length\_Transport] check ([Length\_Transport] like ('[0-9][0-9][0-9][0-9]')),  constraint [CH\_Width\_Transport] check ([Width\_Transport] like ('[0-9][0-9][0-9][0-9]')),  constraint [CH\_Height\_Transport] check ([Height\_Transport] like ('[0-9][0-9][0-9][0-9]')),  constraint [CH\_Load\_Copacity] check ([Load\_Copacity] like ('[0-9][0-9][0-9][0-9]')  or [Load\_Copacity] like ('[0-9][0-9][0-9][0-9][0-9]')),  constraint [CH\_Copacity] check ([Copacity] like ('[0-9][0-9]')),  constraint [CH\_Number\_Transport] check ([Number\_Transport] like ('[А-Я][0-9][0-9][0-9][А-Я][А-Я]')),  constraint [UQ\_Number\_Transport] unique ([Number\_Transport]),  constraint [FK\_Model\_Transport] foreign key ([Model\_ID])  references [dbo].[Model] ([ID\_Model])  )  go |
|  | Length\_Transport | VARCHAR(8) | «0000 мм» |
|  | Width\_Transport | VARCHAR(8) | «0000 мм» |
|  | Height\_Transport | VARCHAR(8) | «0000 мм» |
|  | Load\_Copacity | VARCHAR(8) | «00009 кг» |
|  | Copacity | VARCHAR(9) | «00 куб. м» |
|  | Number\_Transport | VARCHAR(10) | «[А-Я]000[А-Я][А-Я]-009», уникальное поле |
| FK | Model\_ID | INT |  |
| Employee | | | | |
| PK | ID\_Employee | INT | Первичный ключ таблицы «Сотрудник» | create table [dbo].[Employee]  (  [ID\_Employee] [int] not null identity(1,1),  [Name\_Employee] [varchar] (32) not null,  [Surname\_Employee] [varchar] (32) not null,  [Lastname\_Employee] [varchar] (32) null default('-'),  [SNILS] [varchar] (14) not null,  [FOMS] [varchar] (16) not null,  [Login\_Employee] [varchar] (50) not null,  [Password\_Employee] [varchar] (32) not null,  [Carrier\_ID] [int] not null  constraint [PK\_Employee] primary key clustered  ([ID\_Employee] ASC) on [PRIMARY],  constraint [UQ\_SNILS] unique ([SNILS]),  constraint [CH\_SNILS] check  ([SNILS] like ('[0-9][0-9][0-9]-[0-9][0-9][0-9]-[0-9][0-9][0-9] [0-9][0-9]')),  constraint [UQ\_FOMS] unique ([FOMS]),  constraint [CH\_FOMS] check  ([FOMS] like ('[0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9]')),  constraint [UQ\_Login\_Employee] unique ([Login\_Employee]),  constraint [CH\_Login\_Employee] check (len([Login\_Employee])>=8),  constraint [CH\_Password\_Employee] check  (len([Password\_Employee]) >=4),  constraint [FK\_Carrier\_Employee] foreign key ([Carrier\_ID])  references [dbo].[Carrier] ([ID\_Carrier])  )  go |
|  | Name\_Employee | VARCHAR(32) |  |
|  | Surname\_Employee | VARCHAR(32) |  |
|  | Lastname\_Employee | VARCHAR(32) |  |
|  | SNILS | VARCHAR(14) | «000-000-000 00», уникальное поле |
|  | FOMS | VARCHAR(16) | 0000000000000000, уникальное поле |
|  | Login\_Employee | VARCHAR(50) | Не менее 8 символов, уникальное поле |
|  | Password\_Employee | VARCHAR(32) | Спец. символы, минимум одна прописная или заглавная латинская буква |
| FK | Carrier\_ID | INT |  |
| Model | | | | |
| PK | ID\_Model | INT | Первичный ключ таблицы «Модель» | create table [dbo].[Model]  (  [ID\_Model] [int] not null identity(1,1),  [Name\_Model] [varchar] (50) not null,  [Brand\_ID] [int] not null  constraint [PK\_Model] primary key clustered  ([ID\_Model] ASC) on [PRIMARY],  constraint [UQ\_Name\_Model] unique ([Name\_Model]),  constraint [FK\_Brand\_Model] foreign key ([Brand\_ID])  references [dbo].[Brand] ([ID\_Brand])  )  go |
|  | Name\_Model | VARCHAR(50) | Уникальное поле |
| FK | Brand\_ID | INT |  |
| Customer | | | | |
| PK | ID\_Customer | INT | Первичный ключ таблицы «Заказчик» | create table [dbo].[Customer]  (  [ID\_Customer] [int] not null identity(1,1),  [Name\_Customer\_Organization] [varchar] (50) not null,  [Organization\_Address] [varchar] (max) not null,  [TIN] [varchar] (12) not null,  [BIC] [varchar] (9) not null,  [OKPO] [varchar] (8) not null,  [Login\_Customer] [varchar] (50) not null,  [Password\_Customer] [varchar] (32) not null,  [Name\_Customer] [varchar] (32) not null,  [Surname\_Customer] [varchar] (32) not null,  [Lastname\_Customer] [varchar] (32) null default('-'),  [Type\_Organization\_ID] [int] not null,  [Representative\_ID] [int] not null  constraint [PK\_Customer] primary key clustered  ([ID\_Customer] ASC) on [PRIMARY],  constraint [CH\_TIN] check  ([TIN] like ('[0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9]')),  constraint [UQ\_TIN] unique ([TIN]),  constraint [CH\_BIC] check ([BIC] like ('[0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9]')),  constraint [CH\_OKPO] check ([OKPO] like ('[0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9]')),  constraint [UQ\_OKPO] unique ([OKPO]),  constraint [CH\_Login\_Customer] check  (len([Login\_Customer]) >=8),  constraint [UQ\_Login\_Customer] unique ([Login\_Customer]),  constraint [CH\_Password\_Customer] check  (len([Password\_Customer]) >=4),  constraint [FK\_Type\_Organization\_Customer] foreign key ([Type\_Organization\_ID])  references [dbo].[Type\_Organization] ([ID\_Type\_Organization]),  constraint [FK\_Representative\_Customer] foreign key ([Representative\_ID])  references [dbo].[Representative] ([ID\_Representative])  )  go |
|  | Name\_Customer\_Organiztion | VARCHAR(50) |  |
|  | Organiztion\_Address | VARCHAR(MAX) |  |
|  | TIN | VARCHAR(12) | 000000000000, уникальное поле |
|  | BIC | VARCHAR(9) | 000000000 |
|  | OKPO | VARCHAR(8) | 00000000 |
|  | Login\_Customer | VARCHAR(50) | Не менее 8 символов, уникальное поле |
|  | Password\_Customer | VARCHAR(32) | Спец. символы, минимум одна прописная или заглавная латинская буква |
|  | Name\_Customer | VARCHAR(32) |  |
|  | Surname\_Customer | VARCHAR(32) |  |  |
|  | Lastname\_Customer | VARCHAR(32) |  |  |
|  | Type\_Organization\_ID | INT |  |  |
| FK | ID\_Customer | INT | Первичный ключ таблицы «Заказчик» |  |

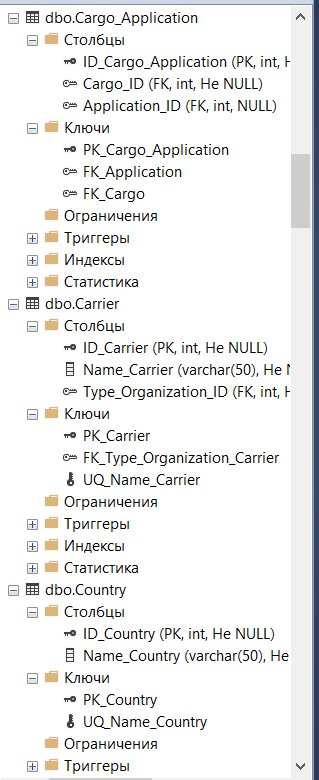
5) На основании словаря данных, произвести реализацию, дочерних таблиц со связями М:М:

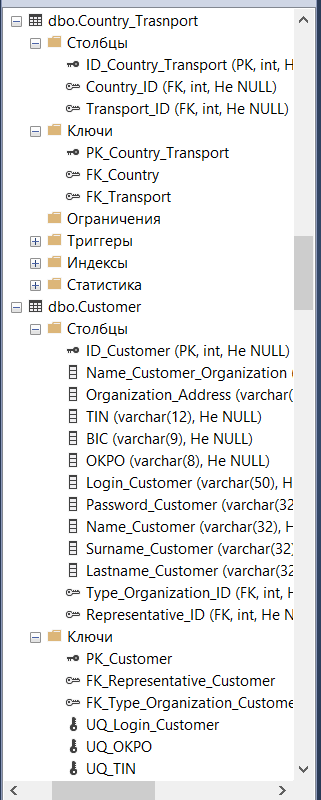
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ключ | Наименование | Тип данных | Примечание | Скрипт объекта |
| Country\_Transport | | | | |
| PK | ID\_Country\_Transport | INT | Первичный ключ таблицы «Страна транспорта» | create table [dbo].[Country\_Trasnport]  (  [ID\_Country\_Transport] [int] not null identity(1,1),  [Country\_ID] [int] not null,  [Transport\_ID] [int] not null  constraint [PK\_Country\_Transport] primary key clustered  ([ID\_Country\_Transport] ASC) on [PRIMARY],  constraint [FK\_Country] foreign key ([Country\_ID])  references [dbo].[Country] ([ID\_Country]),  constraint [FK\_Transport] foreign key ([Transport\_ID])  references [dbo].[Transport] ([ID\_Transport]),  )  go |
| FK | Country\_ID | INT |  |
| FK | Transport\_ID | INT |  |
| Application | | | | |
| PK | ID\_Application | INT | Первичный ключ таблицы заявка | create table [dbo].[Application]  (  [ID\_Application] [int] not null identity(1,1),  [Number\_Application] [varchar] (max) not null,  [Date\_Time\_Application] [datetime] not null default(getdate()),  [Customer\_ID] [int] not null,  [Route\_Sheet\_ID] [int] not null,  [Status\_Application] [varchar] (15) not null  constraint [PK\_Application] primary key clustered  ([ID\_Application] ASC) on [PRIMARY],  constraint [CH\_Number\_Application] check  ([Number\_Application] like ('[0-9][0-9][0-9][0-9]-[0-9][0-9]')),  constraint [CH\_Status\_Application] check  ([Status\_Application] in ('Обработан', 'Обрабатывается', 'Отменен')),  constraint [FK\_Customer\_Application] foreign key ([Customer\_ID])  references [dbo].[Customer] ([ID\_Customer]),  constraint [FK\_Customer\_Route\_Sheet] foreign key ([Route\_Sheet\_ID])  references [dbo].[Route\_Sheet] ([ID\_Route\_Sheet]),  )  go |
|  | Number\_Application | VARCHAR(MAX) | 0000-00, уникальное поле |
|  | Date\_Application | DATE | Текущая дата |
|  | Time\_Application | TIME | Текущее время |
|  | Status\_Application | VARCHAR(15) | «Доставлен», «Доставляется», «Отменен» |
| FK | Customer\_ID | INT |  |
| FK | Route\_Sheet\_ID | INT |  |
| Points\_Route\_Sheet | | | | |
| PK | ID\_Point\_Route\_Sheet | INT | Первичный ключ таблицы «Точки маршрутного листа» | create table [dbo].[Points\_Route\_Sheet]  (  [ID\_Point\_Route\_Sheet] [int] not null identity(1,1),  [Delivery\_Point\_ID] [int] not null,  [Route\_Sheet\_ID] [int] not null  constraint [PK\_Point\_Route\_Sheet] primary key clustered  ([ID\_Point\_Route\_Sheet] ASC) on [PRIMARY],  constraint [FK\_Delivery\_Point] foreign key ([Delivery\_Point\_ID])  references [dbo].[Delivery\_Points] ([ID\_Delivery\_Point]),  constraint [FK\_Route\_Sheet] foreign key ([Route\_Sheet\_ID])  references [dbo].[Route\_Sheet] ([ID\_Route\_Sheet]),  )  go |
| FK | Delivery\_Point\_ID | INT |  |
| FK | Route\_Sheet\_ID | INT |  |
| Post\_Customer | | | | |
| PK | ID\_Post\_Customer | INT | Первичный ключ таблицы «Должность заказчика» | create table [dbo].[Post\_Customer]  (  [ID\_Post\_Customer] [int] not null identity(1,1),  [Post\_ID] [int] not null,  [Customer\_ID] [int] not null  constraint [PK\_Post\_Customer] primary key clustered  ([ID\_Post\_Customer] ASC) on [PRIMARY],  constraint [FK\_Post] foreign key ([Post\_ID])  references [dbo].[Post] ([ID\_Post]),  constraint [FK\_Customer] foreign key ([Customer\_ID])  references [dbo].[Customer] ([ID\_Customer]),  )  go |
| FK | Post\_ID | INT |  |
| FK | Customer\_ID | INT |  |
| Route\_Sheet | | | | |
| PK | ID\_Route\_Sheet | INT | Первичный ключ таблицы «Маршрутный лист» | create table [dbo].[Route\_Sheet]  (  [ID\_Route\_Sheet] [int] not null identity(1,1),  [Number\_Route\_Sheet] [varchar] (max) not null,  [Date\_Route\_Sheet] [date] not null default(getdate()),  [Time\_Route\_Sheet] [time] not null default(getdate()),  [Carrier\_ID] [int] not null,  [Transport\_ID] [int] not null  constraint [PK\_Route\_Sheet] primary key clustered  ([ID\_Route\_Sheet] ASC) on [PRIMARY],  constraint [CH\_Number\_Route\_Sheet] check  ([Number\_Route\_Sheet] like ('[0-9][0-9][0-9][0-9]-[0-9][0-9]')),  constraint [FK\_Carrier\_Route\_Sheet] foreign key ([Carrier\_ID])  references [dbo].[Carrier] ([ID\_Carrier]),  constraint [FK\_Transport\_Route\_Sheet] foreign key ([Transport\_ID])  references [dbo].[Transport] ([ID\_Transport]),  )  go |
|  | Number\_Route\_Sheet | VARCHAR(MAX) | 0000-00, уникальное поле |
|  | Date\_Route\_Sheet | DATE | Текущая дата |
|  | Time\_Route\_Sheet | TIME | Текущее время |  |
| FK | Carrier\_ID | INT |  |  |
| FK | Transport\_ID | INT |  |  |
| Post\_Employee | | | | |
| PK | ID\_Post\_Employee | INT | Первичный ключ таблицы «Должность сотрудника» | create table [dbo].[Post\_Employee]  (  [ID\_Post\_Employee] [int] not null identity(1,1),  [Post\_ID] [int] not null,  [Employee\_ID] [int] not null  constraint [PK\_Post\_Employee] primary key clustered  ([ID\_Post\_Employee] ASC) on [PRIMARY],  constraint [FK\_Post\_Employee] foreign key ([Post\_ID])  references [dbo].[Post] ([ID\_Post]),  constraint [FK\_Employee] foreign key ([Employee\_ID])  references [dbo].[Employee] ([ID\_Employee]),  )  go |
| FK | Post\_ID | INT |  |
| FK | Employee\_ID | INT |  |
| Cargo\_Application | | | | |
| PK | ID\_Cargo\_Applocation | INT | Первичный ключ таблицы «Заявка груза» | create table [dbo].[Cargo\_Application]  (  [ID\_Cargo\_Application] [int] not null identity(1,1),  [Cargo\_ID] [int] not null,  [Application\_ID] [int] null  constraint [PK\_Cargo\_Application] primary key clustered  ([ID\_Cargo\_Application] ASC) on [PRIMARY],  constraint [FK\_Cargo] foreign key ([Cargo\_ID])  references [dbo].[Cargo] ([ID\_Cargo]),  constraint [FK\_Application] foreign key ([Application\_ID])  references [dbo].[Application] ([ID\_Application])  )  go |
| FK | Cargo\_ID | INT |  |
| FK | Application\_ID | INT |  |
| Employee\_License | | | | |
| PK | ID\_Employee\_License | INT | Первичный ключ таблицы «Права сотрудника» | create table [dbo].[Employee\_License]  (  [ID\_Employee\_License] [int] not null identity(1,1),  [Employee\_ID] [int] not null,  [License\_ID] [int] null  constraint [PK\_Employee\_License] primary key clustered  ([ID\_Employee\_License] ASC) on [PRIMARY],  constraint [FK\_Employee\_License] foreign key ([Employee\_ID])  references [dbo].[Employee] ([ID\_Employee]),  constraint [FK\_License] foreign key ([License\_ID])  references [dbo].[License] ([ID\_License])  )  go |
| FK | Employee\_ID | INT |  |
| FK | License\_ID | INT |  |

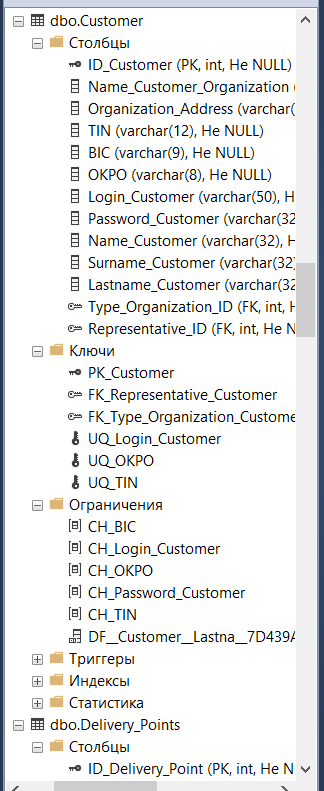
6) Продемонстрировать результат разработанной базы данных, приложив иллюстрации обозревателя объектов, среды разработки базы данныъ:

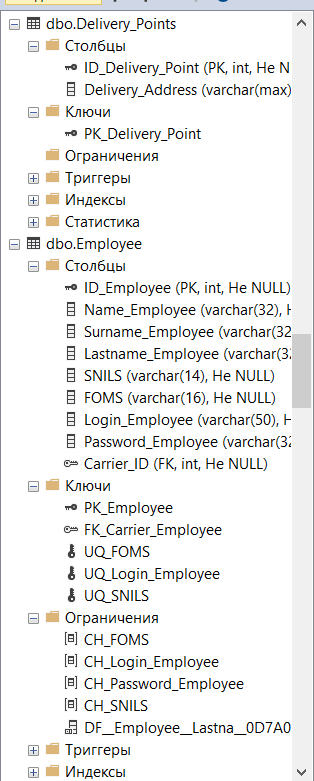


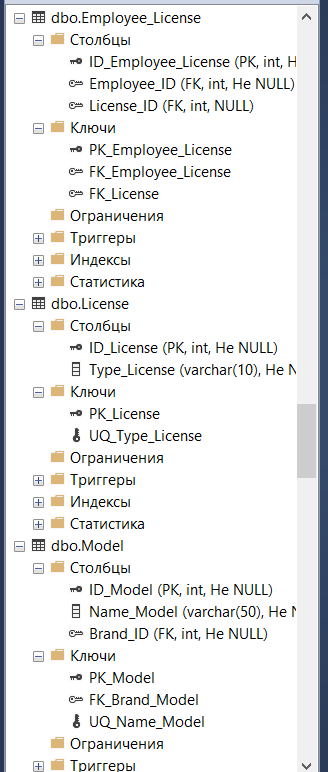


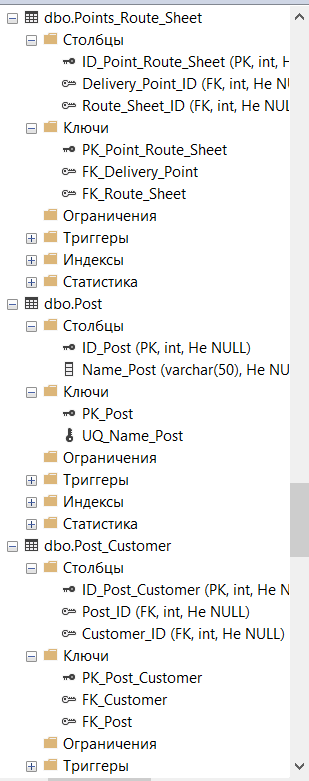


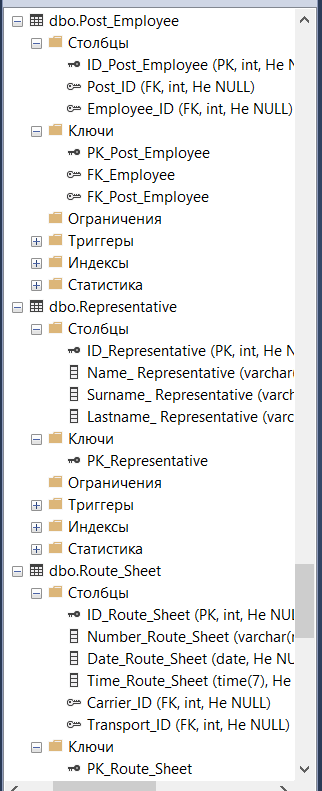


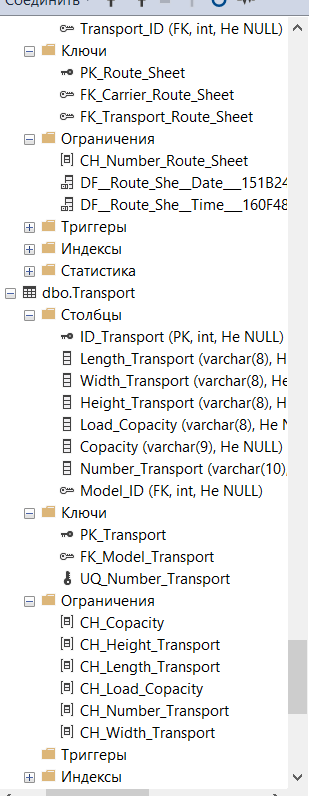


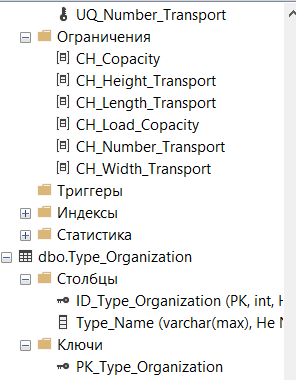




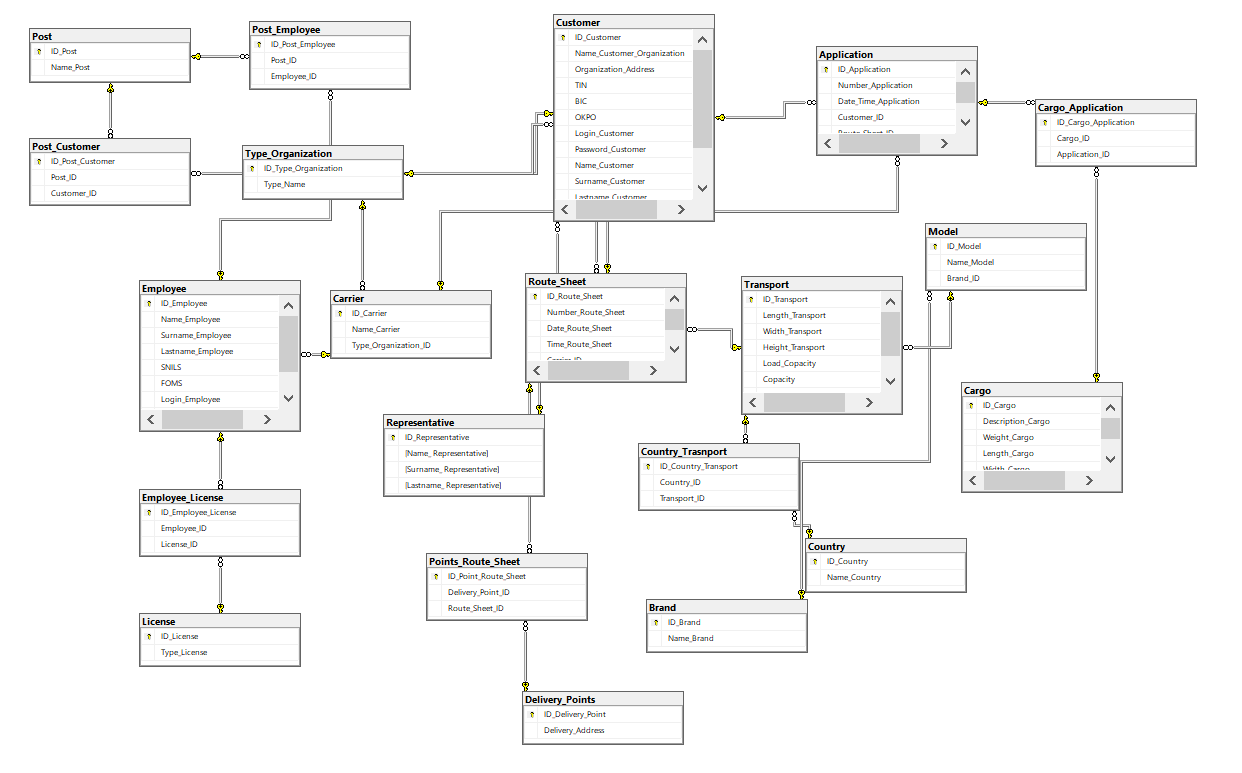








7) Продемонстрировать даталогическую модель данных, из инструментальной среды разработки баз данных:



3. ВЫВОД

В ходе практической работы были получены навыки создания базы данных на основании даталогических данных и словаря данных.

4. СПИСОК ИСПОЛЬЗУЕМОЙ ЛИТЕРАТУРЫ

1. Теоретические сведения к выполнению практической работы.