Министерство науки и высшего образования Российской Федерации
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«Национальный исследовательский университет ИТМО»

Факультет инфокоммуникационных технологий

ЛАБОРАТОРНАЯ РАБОТА №1.2

СОЗДАНИЕ ТАБЛИЦ БАЗЫ ДАННЫХ POSTGRESQL. ЗАПОЛНЕНИЕ ТАБЛИЦ РАБОЧИМИ ДАННЫМИ

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Цель работы: овладеть практическими навыками создания таблиц базы данных PostgreSQL 1X, заполнения их рабочими данными, резервного копирования и восстановления БД.

Оборудование: компьютерный класс.

Программное обеспечение: СУБД PostgreSQL 1X, pgAdmin 4.

Практическое задание:

1. Создать базу данных с использованием pgAdmin 4 (согласно индивидуальному заданию).
2. Создать схему в составе базы данных.
3. Создать таблицы базы данных.
4. Установить ограничения на данные: *Primary Key, Unique, Check, Foreign Key*.
5. Заполнить таблицы БД рабочими данными.
6. Создать резервную копию БД.

Указание:

Создать две резервные копии:
- *с расширением CUSTOM для восстановления БД;*
- *с расширением PLAIN для листинга (в отчете);*
- *при создании резервных копий БД настроить параметры Dump options для Type of objects и Queries .*

7.   Восстановить БД

Технология выполнения работы:

Вариант 6. БД «Пассажир»

Описание предметной области: Информационная система служит для продажи железнодорожных билетов . Билеты могут продаваться на текущие сутки или предварительно (не более чем за 45 суток). Цена билета при предварительной продаже снижается на 5 %.

БД должна содержать следующий минимальный набор сведений: Номер поезда. Название поезда. Тип поезда. Пункт назначения. Пункт назначения для проданного билета. Номер вагона. Тип вагона. Количество мест в вагоне. Цена билета. Дата отправления. Дата прибытия. Дата прибытия для пункта назначения проданного билета. Время отправления. Номер вагона в поезде. Номер билета. Место. Тип места. Фамилия пассажира. Имя пассажира. Отчество пассажира. Паспортные данные.
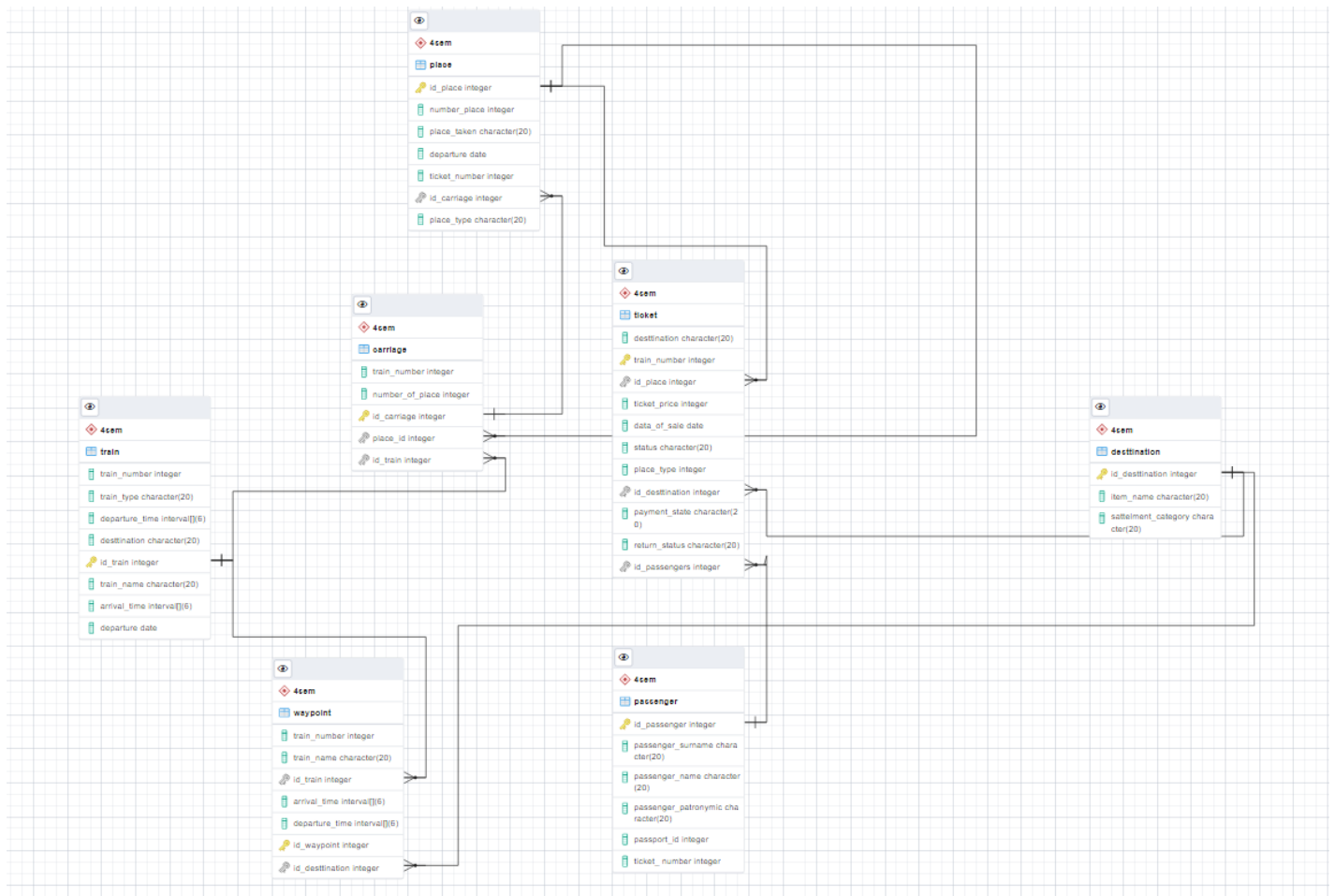
Состав реквизитов сущностей:

A) Место (id места, номер места, занятость места, дата выезда, номер билета, id вагона, тип места)

B) Вагон (id вагона, id места, id поезда, число мест)

C) Поезд (id поезда, время отправления, дата отправления, имя поезда, время прибытия, тип поезда, пункт назначения, номер поезда)

D) Остановка (id остановки, id пункта назначения, id поезда, имя поезда, номер поезда, время прибытия, время отправления)

E) Пассажир (id пассажира, имя пассажира, фамилия пассажира, отчество пассажира, id паспорта, номер билета)

F) Билет (номер поезда, id места, id пункта назначения, id пассажира, статус возврата, статус оплаты, тип места, статус, дата продажи, цена билета, пункт назначения)

G) Пункт назначения (id пункта назначения, название пункта. Категория населенного пункта)

Схема логической модели БД в нотации IDEF1X

Заполнение таблицы рабочими данными

Для заполнения использовался скрипт: INSERT INTO

```sql
insert into "4sem".desttination
(item_name, sattelment_category)
values
('Белоостров','village'),
('Левашово','village'),
('Санкт-Петербург','city'),
('Репино','village');
```

	id_desttination [PK] integer	item_name character (20)	sattelment_category character (20)
1	1	Белоостров	village
2	2	Левашово	village
3	3	Санкт-Петерб…	city
4	4	Репино	village

Дамп со скриптами

CREATE DATABASE "Lab_1_4sem" WITH TEMPLATE = template0 ENCODING = 'UTF8' LOCALE = 'Russian_Russia.1251';

ALTER DATABASE "Lab_1_4sem" OWNER TO postgres;

\connect "Lab_1_4sem"

SET statement_timeout = 0;

SET lock_timeout = 0;

SET idle_in_transaction_session_timeout = 0;

SET client_encoding = 'UTF8';

SET standard_conforming_strings = on;

SELECT pg_catalog.set_config('search_path', '', false);

SET check_function_bodies = false;

SET xmloption = content;

SET client_min_messages = warning;

SET row_security = off;

--

-- TOC entry 3 (class 2615 OID 19548)

-- Name: 4sem; Type: SCHEMA; Schema: -; Owner: postgres

--

CREATE SCHEMA "4sem";

ALTER SCHEMA "4sem" OWNER TO postgres;

```sql
SET default_tablespace = '';

SET default_table_access_method = heap;

--
-- TOC entry 214 (class 1259 OID 19562)
-- Name: carriage; Type: TABLE; Schema: 4sem; Owner: postgres
--

CREATE TABLE "4sem".carriage (
    train_number integer NOT NULL,
    number_of_place integer NOT NULL,
    id_carriage integer NOT NULL,
    place_id integer NOT NULL,
    id_train integer NOT NULL
);

ALTER TABLE "4sem".carriage OWNER TO postgres;

--
-- TOC entry 213 (class 1259 OID 19561)
-- Name: carriage_id_carriage_seq; Type: SEQUENCE; Schema: 4sem; Owner: postgres
--
```

```
ALTER TABLE "4sem".carriage ALTER COLUMN id_carriage ADD GENERATED ALWAYS AS
IDENTITY (

        SEQUENCE NAME "4sem".carriage_id_carriage_seq

        START WITH 1

        INCREMENT BY 1

        NO MINVALUE

        NO MAXVALUE

        CACHE 1

);


--

-- TOC entry 220 (class 1259 OID 19584)

-- Name: desttination; Type: TABLE; Schema: 4sem; Owner: postgres

--


CREATE TABLE "4sem".desttination (

        id_desttination integer NOT NULL,

        item_name character(20) NOT NULL,

        sattelment_category character(20) NOT NULL

);


ALTER TABLE "4sem".desttination OWNER TO postgres;


--

-- TOC entry 219 (class 1259 OID 19583)
```

Name: desttination_id_desttination_seq; Type: SEQUENCE; Schema: 4sem; Owner: postgres

--

```
ALTER TABLE "4sem".desttination ALTER COLUMN id_desttination ADD GENERATED ALWAYS AS IDENTITY (

    SEQUENCE NAME "4sem".desttination_id_desttination_seq

    START WITH 1

    INCREMENT BY 1

    NO MINVALUE

    NO MAXVALUE

    CACHE 1
);
```

--

-- TOC entry 222 (class 1259 OID 19590)

-- Name: passenger; Type: TABLE; Schema: 4sem; Owner: postgres

--

```
CREATE TABLE "4sem".passenger (

    id_passenger integer NOT NULL,

    passenger_surname character(20) NOT NULL,

    passenger_name character(20) NOT NULL,

    passenger_patronymic character(20) NOT NULL,

    passport_id integer NOT NULL,

    "ticket_ number" integer NOT NULL
);
```

ALTER TABLE "4sem".passenger OWNER TO postgres;

--

-- TOC entry 221 (class 1259 OID 19589)

-- Name: passenger_id_passenger_seq; Type: SEQUENCE; Schema: 4sem; Owner: postgres

--

ALTER TABLE "4sem".passenger ALTER COLUMN id_passenger ADD GENERATED ALWAYS AS IDENTITY (

SEQUENCE NAME "4sem".passenger_id_passenger_seq

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 212 (class 1259 OID 19556)

-- Name: place; Type: TABLE; Schema: 4sem; Owner: postgres

--

CREATE TABLE "4sem".place (

id_place integer NOT NULL,

```
        number_place integer NOT NULL,

        place_taken character(20) NOT NULL,

        departure date NOT NULL,

        ticket_number integer NOT NULL,

        id_carriage integer NOT NULL,

        place_type character(20) NOT NULL
);


ALTER TABLE "4sem".place OWNER TO postgres;


--

-- TOC entry 211 (class 1259 OID 19555)

-- Name: place_id_place_seq; Type: SEQUENCE; Schema: 4sem; Owner: postgres

--


ALTER TABLE "4sem".place ALTER COLUMN id_place ADD GENERATED ALWAYS AS
IDENTITY (

        SEQUENCE NAME "4sem".place_id_place_seq

        START WITH 1

        INCREMENT BY 1

        NO MINVALUE

        NO MAXVALUE

        CACHE 1
);
```

```
CREATE TABLE "4sem".ticket (

        desttination character(20) NOT NULL,

        train_number integer NOT NULL,

        id_place integer NOT NULL,

        ticket_price integer NOT NULL,

        data_of_sale date NOT NULL,

        status character(20) NOT NULL,

        place_type integer NOT NULL,

        id_desttination integer NOT NULL,

        payment_state character(20) NOT NULL,

        return_status character(20) NOT NULL,

        id_passengers integer NOT NULL
);
```

```
ALTER TABLE "4sem".ticket OWNER TO postgres;
```

```
ALTER TABLE "4sem".ticket ALTER COLUMN train_number ADD GENERATED ALWAYS AS
IDENTITY (

        SEQUENCE NAME "4sem".ticket_train_number_seq

        START WITH 1

        INCREMENT BY 1

        NO MINVALUE

        NO MAXVALUE

        CACHE 1

);


--

-- TOC entry 216 (class 1259 OID 19568)

-- Name: train; Type: TABLE; Schema: 4sem; Owner: postgres

--


CREATE TABLE "4sem".train (

        train_number integer NOT NULL,

        train_type character(20) NOT NULL,

        departure_time interval(6)[] NOT NULL,

        desttination character(20) NOT NULL,

        id_train integer NOT NULL,

        train_name character(20) NOT NULL,

        arrival_time interval(6)[] NOT NULL,

        departure date NOT NULL

);
```

ALTER TABLE "4sem".train OWNER TO postgres;

--

-- TOC entry 215 (class 1259 OID 19567)

-- Name: train_id_train_seq; Type: SEQUENCE; Schema: 4sem; Owner: postgres

--

ALTER TABLE "4sem".train ALTER COLUMN id_train ADD GENERATED ALWAYS AS IDENTITY (

        SEQUENCE NAME "4sem".train_id_train_seq

        START WITH 1

        INCREMENT BY 1

        NO MINVALUE

        NO MAXVALUE

        CACHE 1

);

--

-- TOC entry 218 (class 1259 OID 19576)

-- Name: waypoint; Type: TABLE; Schema: 4sem; Owner: postgres

--

CREATE TABLE "4sem".waypoint (

        train_number integer NOT NULL,

        train_name character(20) NOT NULL,

```sql
        id_train integer NOT NULL,

        arrival_time interval(6)[] NOT NULL,

        departure_time interval(6)[] NOT NULL,

        id_waypoint integer NOT NULL,

        id_desttination integer NOT NULL
);
```

```sql
ALTER TABLE "4sem".waypoint OWNER TO postgres;
```

```
--

-- TOC entry 217 (class 1259 OID 19575)

-- Name: waypoint_id_waypoint_seq; Type: SEQUENCE; Schema: 4sem; Owner: postgres

--
```

```sql
ALTER TABLE "4sem".waypoint ALTER COLUMN id_waypoint ADD GENERATED ALWAYS
AS IDENTITY (

        SEQUENCE NAME "4sem".waypoint_id_waypoint_seq

        START WITH 1

        INCREMENT BY 1

        NO MINVALUE

        NO MAXVALUE

        CACHE 1
);
```

```
--
```

--

-- TOC entry 3368 (class 0 OID 19562)

-- Dependencies: 214

-- Data for Name: carriage; Type: TABLE DATA; Schema: 4sem; Owner: postgres

--

--

-- TOC entry 3374 (class 0 OID 19584)

-- Dependencies: 220

-- Data for Name: desttination; Type: TABLE DATA; Schema: 4sem; Owner: postgres

--

```sql
INSERT INTO "4sem".desttination (id_desttination, item_name, sattelment_category) OVERRIDING SYSTEM VALUE VALUES (1, 'Белоостров        ', 'village          ');

INSERT INTO "4sem".desttination (id_desttination, item_name, sattelment_category) OVERRIDING SYSTEM VALUE VALUES (2, 'Левашово          ', 'village          ');

INSERT INTO "4sem".desttination (id_desttination, item_name, sattelment_category) OVERRIDING SYSTEM VALUE VALUES (3, 'Санкт-Петербург   ', 'city             ');

INSERT INTO "4sem".desttination (id_desttination, item_name, sattelment_category) OVERRIDING SYSTEM VALUE VALUES (4, 'Репино            ', 'village          ');
```

--

-- TOC entry 3376 (class 0 OID 19590)

-- Dependencies: 222

-- Data for Name: passenger; Type: TABLE DATA; Schema: 4sem; Owner: postgres

--

--

-- TOC entry 3366 (class 0 OID 19556)

-- Dependencies: 212

-- Data for Name: place; Type: TABLE DATA; Schema: 4sem; Owner: postgres

--

--

-- TOC entry 3364 (class 0 OID 19550)

-- Dependencies: 210

-- Data for Name: ticket; Type: TABLE DATA; Schema: 4sem; Owner: postgres

--

--

-- TOC entry 3370 (class 0 OID 19568)

-- Dependencies: 216

-- Data for Name: train; Type: TABLE DATA; Schema: 4sem; Owner: postgres

--

--

-- TOC entry 3372 (class 0 OID 19576)

-- Dependencies: 218

-- Data for Name: waypoint; Type: TABLE DATA; Schema: 4sem; Owner: postgres

--

--

-- TOC entry 3383 (class 0 OID 0)

-- Dependencies: 213

-- Name: carriage_id_carriage_seq; Type: SEQUENCE SET; Schema: 4sem; Owner: postgres

--

SELECT pg_catalog.setval('"4sem".carriage_id_carriage_seq', 1, false);

--

-- TOC entry 3384 (class 0 OID 0)

-- Dependencies: 219

-- Name: desttination_id_desttination_seq; Type: SEQUENCE SET; Schema: 4sem; Owner: postgres

--

SELECT pg_catalog.setval('"4sem".desttination_id_desttination_seq', 4, true);

--

-- TOC entry 3385 (class 0 OID 0)

-- Dependencies: 221

-- Name: passenger_id_passenger_seq; Type: SEQUENCE SET; Schema: 4sem; Owner: postgres

--

SELECT pg_catalog.setval('"4sem".passenger_id_passenger_seq', 1, false);

--

-- TOC entry 3386 (class 0 OID 0)

-- Dependencies: 211

-- Name: place_id_place_seq; Type: SEQUENCE SET; Schema: 4sem; Owner: postgres

--

SELECT pg_catalog.setval('"4sem".place_id_place_seq', 1, false);

--

-- TOC entry 3387 (class 0 OID 0)

-- Dependencies: 209

-- Name: ticket_train_number_seq; Type: SEQUENCE SET; Schema: 4sem; Owner: postgres

--

SELECT pg_catalog.setval('"4sem".ticket_train_number_seq', 1, false);

--

-- TOC entry 3388 (class 0 OID 0)

-- Dependencies: 215

-- Name: train_id_train_seq; Type: SEQUENCE SET; Schema: 4sem; Owner: postgres

--

SELECT pg_catalog.setval('"4sem".train_id_train_seq', 1, false);

--

-- TOC entry 3389 (class 0 OID 0)

-- Dependencies: 217

-- Name: waypoint_id_waypoint_seq; Type: SEQUENCE SET; Schema: 4sem; Owner: postgres

--

SELECT pg_catalog.setval('"4sem".waypoint_id_waypoint_seq', 1, false);

--

-- TOC entry 3199 (class 2606 OID 19566)

-- Name: carriage carriage_pkey; Type: CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".carriage

        ADD CONSTRAINT carriage_pkey PRIMARY KEY (id_carriage);

--

-- TOC entry 3205 (class 2606 OID 19588)

-- Name: desttination desttination_pkey; Type: CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".desttination

    ADD CONSTRAINT desttination_pkey PRIMARY KEY (id_desttination);

--

-- TOC entry 3207 (class 2606 OID 19594)

-- Name: passenger passenger_pkey; Type: CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".passenger

    ADD CONSTRAINT passenger_pkey PRIMARY KEY (id_passenger);

--

-- TOC entry 3197 (class 2606 OID 19560)

-- Name: place place_pkey; Type: CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".place

    ADD CONSTRAINT place_pkey PRIMARY KEY (id_place);

--

-- TOC entry 3195 (class 2606 OID 19554)

-- Name: ticket ticket_pkey; Type: CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".ticket

    ADD CONSTRAINT ticket_pkey PRIMARY KEY (train_number);

--

-- TOC entry 3201 (class 2606 OID 19574)

-- Name: train train_pkey; Type: CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".train

    ADD CONSTRAINT train_pkey PRIMARY KEY (id_train);

--

-- TOC entry 3203 (class 2606 OID 19582)

-- Name: waypoint waypoint_pkey; Type: CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".waypoint

    ADD CONSTRAINT waypoint_pkey PRIMARY KEY (id_waypoint);

--

-- TOC entry 3217 (class 2606 OID 19620)

-- Name: carriage carriage_id_train_fkey; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".carriage

    ADD CONSTRAINT carriage_id_train_fkey FOREIGN KEY (id_train) REFERENCES "4sem".train(id_train) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3219 (class 2606 OID 19660)

-- Name: carriage carriage_id_train_fkey1; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".carriage

    ADD CONSTRAINT carriage_id_train_fkey1 FOREIGN KEY (id_train) REFERENCES "4sem".train(id_train) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3216 (class 2606 OID 19615)

-- Name: carriage carriage_place_id_fkey; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".carriage

    ADD CONSTRAINT carriage_place_id_fkey FOREIGN KEY (place_id) REFERENCES "4sem".place(id_place) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3218 (class 2606 OID 19655)

-- Name: carriage carriage_place_id_fkey1; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".carriage

    ADD CONSTRAINT carriage_place_id_fkey1 FOREIGN KEY (place_id) REFERENCES "4sem".place(id_place) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3214 (class 2606 OID 19610)

-- Name: place place_id_carriage_fkey; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".place

    ADD CONSTRAINT place_id_carriage_fkey FOREIGN KEY (id_carriage) REFERENCES "4sem".carriage(id_carriage) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3215 (class 2606 OID 19650)

-- Name: place place_id_carriage_fkey1; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".place

    ADD CONSTRAINT place_id_carriage_fkey1 FOREIGN KEY (id_carriage) REFERENCES "4sem".carriage(id_carriage) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3209 (class 2606 OID 19600)

-- Name: ticket ticket_id_desttination_fkey; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".ticket

    ADD CONSTRAINT ticket_id_desttination_fkey FOREIGN KEY (id_desttination) REFERENCES "4sem".desttination(id_desttination) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3212 (class 2606 OID 19640)

-- Name: ticket ticket_id_desttination_fkey1; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".ticket

    ADD CONSTRAINT ticket_id_desttination_fkey1 FOREIGN KEY (id_desttination) REFERENCES "4sem".desttination(id_desttination) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3210 (class 2606 OID 19605)

-- Name: ticket ticket_id_passengers_fkey; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".ticket

ADD CONSTRAINT ticket_id_passengers_fkey FOREIGN KEY (id_passengers) REFERENCES "4sem".passenger(id_passenger) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3213 (class 2606 OID 19645)

-- Name: ticket ticket_id_passengers_fkey1; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".ticket

ADD CONSTRAINT ticket_id_passengers_fkey1 FOREIGN KEY (id_passengers) REFERENCES "4sem".passenger(id_passenger) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3208 (class 2606 OID 19595)

-- Name: ticket ticket_id_place_fkey; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".ticket

ADD CONSTRAINT ticket_id_place_fkey FOREIGN KEY (id_place) REFERENCES "4sem".place(id_place) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3211 (class 2606 OID 19635)

-- Name: ticket ticket_id_place_fkey1; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".ticket

    ADD CONSTRAINT ticket_id_place_fkey1 FOREIGN KEY (id_place) REFERENCES "4sem".place(id_place) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3221 (class 2606 OID 19630)

-- Name: waypoint waypoint_id_desttination_fkey; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".waypoint

    ADD CONSTRAINT waypoint_id_desttination_fkey FOREIGN KEY (id_desttination) REFERENCES "4sem".desttination(id_desttination) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3223 (class 2606 OID 19670)

-- Name: waypoint waypoint_id_desttination_fkey1; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".waypoint

ADD CONSTRAINT waypoint_id_desttination_fkey1 FOREIGN KEY (id_desttination) REFERENCES "4sem".desttination(id_desttination) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3220 (class 2606 OID 19625)

-- Name: waypoint waypoint_id_train_fkey; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".waypoint

ADD CONSTRAINT waypoint_id_train_fkey FOREIGN KEY (id_train) REFERENCES "4sem".train(id_train) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

--

-- TOC entry 3222 (class 2606 OID 19665)

-- Name: waypoint waypoint_id_train_fkey1; Type: FK CONSTRAINT; Schema: 4sem; Owner: postgres

--

ALTER TABLE ONLY "4sem".waypoint

ADD CONSTRAINT waypoint_id_train_fkey1 FOREIGN KEY (id_train) REFERENCES "4sem".train(id_train) ON UPDATE CASCADE ON DELETE CASCADE NOT VALID;

-- Completed on 2022-10-02 22:47:12

--

-- PostgreSQL database dump complete

--

Создание бэкапа и восстановление: