CREATE TABLE IF NOT EXISTS Specialist(ID INT PRIMARY KEY,

Department\_name VARCHAR(30) NOT NULL,

Position VARCHAR(30) NOT NULL,

Speciality VARCHAR(30) NOT NULL);

INSERT INTO Specialist VALUES (1,'Кафедра Физкульту-ры','Преподаватель', 'Юрист');

INSERT INTO Specialist VALUES (2,'Кафедра истории','Преподаватель', 'Юрист');

INSERT INTO Specialist VALUES (3,'Кафедра философии','Доцент', 'Юрист');

INSERT INTO Specialist VALUES (4,'Кафедра литературы','Преподаватель', 'Юрист');

INSERT INTO Specialist VALUES (5,'Кафедра математики','Преподаватель', 'Юрист');

INSERT INTO Specialist VALUES (6,'Кафедра физики','Доцент', 'Юрист');

INSERT INTO Specialist VALUES (7,'Кафедра изо','Преподаватель', 'Юрист');

INSERT INTO Specialist VALUES (8,'Кафедра филологии','Преподаватель', 'Юрист');

INSERT INTO Specialist VALUES (9,'Кафедра высоких технологий','Доцент', 'Юрист');

INSERT INTO Specialist VALUES (10,'Кафедра Физкультуры','Преподаватель', 'Юрист');

CREATE TABLE IF NOT EXISTS Teacher(ID INT PRIMARY KEY,

ID\_Specialist INT REFERENCES

Specialist(ID) ON DELETE CASCADE ON

UPDATE CASCADE,

Work\_experience VARCHAR(20) NOT NULL,

FIO VARCHAR(50) NOT NULL,

Salary INT NOT NULL,

Personal\_number INT NOT NULL);

INSERT INTO Teacher Values (1, 1,'3 года','Иванова Наталья Владимиров-на',13000,3456);

INSERT INTO Teacher Values (2,2,'12 лет','Петрова Жанна Адольфов-на',35000,4765);

INSERT INTO Teacher Values (3,3,'4 года','Крысова Иннеса Валентиновна',11000,8726);

INSERT INTO Teacher Values (4,4,'20 лет','Красномызник Янина Станисла-вовна',8000,8916);

INSERT INTO Teacher Values (5,5,'4 года','Стрельникова Нателла Наумовна',7000,5456);

INSERT INTO Teacher Values (6,6,'9 лет','Шершанский Яков Осипович',65000,9376);

INSERT INTO Teacher Values (7,7,'8 лет','Вишневский Гвидон Соломонович',5000,3936);

INSERT INTO Teacher Values (8,8,'3 года','Восьмиглазова Татьяна Всево-лодовна',33000,2746);

INSERT INTO Teacher Values (9,9,'5 лет','Сапогов Ричард Генрихович',65000,7346);

INSERT INTO Teacher Values (10,10,'11 лет','Катамаранов Игорь Анатолье-вич',13000,7036);

CREATE TABLE IF NOT EXISTS Students(ID INT PRIMARY KEY,

FIO VARCHAR(50) NOT NULL,

Phone\_Number VARCHAR(15) NOT NULL,

Groupss VARCHAR(30) NOT NULL,

Date\_of\_birth Date NOT NULL);

INSERT INTO Students VALUES

(1,'Абрамов Александр Николаевич','+78956142155', 'ПБ-201', '20.02.2001');

INSERT INTO Students VALUES

(2,'Сатанитский Константин Глебович','+79456458922','ПБ-202', '15.08.2002');

INSERT INTO Students VALUES

(3,'Кишмишева Алёна Константиновна','+79456458256','ПБ-201', '12.04.2004');

INSERT INTO Students VALUES

(4,'Тазиков Джамал Шимонович','+79457988922','ПБ-203', '28.09.2003');

INSERT INTO Students VALUES

(5,'Цукерник Кондрат Софронович','+79456458312', 'ПБ-201', '27.01.2000');

INSERT INTO Students VALUES

(6,'Клёнова Мелисса Курбатовна','+79468558922', 'ПБ-204', '25.07.2005');

INSERT INTO Students VALUES

(7,'Брежнев Саймон Владимирович','+79456458356', 'ПБ-202', '21.08.1999');

INSERT INTO Students VALUES

(8,'Сильвесторов Павел Геннадиевич','+79456461822','ПБ-204', '14.05.2002' );

INSERT INTO Students VALUES

(9,'Шизоид Сергей Алексеевич','+79456458874', 'ПБ-203', '21.08.1999');

INSERT INTO Students VALUES

(10,'Попловский Кшиштоф Борисович ','+79456458922', 'ПБ-201', '12.06.2003');

CREATE TABLE IF NOT EXISTS Faculties(ID INT PRIMARY KEY,

Faculty VARCHAR(30) NOT NULL,

Direction VARCHAR(30) NOT NULL);

INSERT INTO Faculties VALUES (1,'спк','ИТ');

INSERT INTO Faculties VALUES (22,'ИСП','ИТ');

INSERT INTO Faculties VALUES (33,'ИСП','ИТ');

INSERT INTO Faculties VALUES (44,'спу','ИТ');

INSERT INTO Faculties VALUES (55,'ИСП','ИТ');

INSERT INTO Faculties VALUES (66,'Ипа','ИТ');

INSERT INTO Faculties VALUES (77,'Исп','ИТ');

INSERT INTO Faculties VALUES (88,'ИСП','ИТ');

INSERT INTO Faculties VALUES (99,'ИСП','ИТ');

INSERT INTO Faculties VALUES (11,'ИСП','ИТ');

CREATE TABLE IF NOT EXISTS Groups(ID INT PRIMARY KEY,

ID\_Students INT REFERENCES

Students(ID) ON DELETE CASCADE ON

UPDATE CASCADE,

ID\_Faculties INT REFERENCES

Faculties(ID) ON DELETE CASCADE ON

UPDATE CASCADE,

Course INT NOT NULL,

Number\_Of\_Students INT NOT NULL,

Name VARCHAR(15) NOT NULL,

Phone\_Number\_Of\_The\_Curator VARCHAR(15) NOT NULL);

select \* from Groups

INSERT INTO Groups VALUES

(1,1,1,4,21,'ПБ-201','+79214654213');

INSERT INTO Groups VALUES

(2,2,22,1,15,'ПБ-202с','+79214654278');

/\*INSERT INTO Groups VALUES

(3,3,33,2,29,'бГРАД-182','+79214978213');\*/

INSERT INTO Groups VALUES

(4,4,44,1,30,'бГРАД-183','+79621978213');

/\*INSERT INTO Groups VALUES

(5,5,55,2,20,'ПБ-201','+79214981213');\*/

/\*INSERT INTO Groups VALUES

(6,6,66,3,25,'ПБ-201с','+79214655618');\*/

INSERT INTO Groups VALUES

(7,7,77,4,31,'ПБ-205','+79289054213');

/\*INSERT INTO Groups VALUES

(8,8,88,4,21,'ПБ-201','+79212354213');\*/

INSERT INTO Groups VALUES

(9,9,99,1,25,'ПБ-201с','+79219785618');

INSERT INTO Groups VALUES

(10,10,11,1,19,'бГРАД-182','+79346978213');

select \* from groups

DELETE from Groups where ID=8

CREATE TABLE IF NOT EXISTS Discipline(ID INT PRIMARY KEY,

Name VARCHAR(30) NOT NULL,

Class\_type VARCHAR(30) NOT NULL,

Number\_Of\_Hours Int NOT NULL,

Type\_Of\_Control VARCHAR(30) NOT NULL);

INSERT INTO Discipline VALUES (1,'ПБ-193','Практика',36,'экзамен');

INSERT INTO Discipline VALUES (2,'ПБ-201','Практика',40,'зачёт с оценкой');

INSERT INTO Discipline VALUES (3,'ПБ-202','Практика',36,'экзамен');

INSERT INTO Discipline VALUES (4,'ПБ-192','Лекция',36,'курсовая работа');

INSERT INTO Discipline VALUES (5,'ПБ-191','Практика',36,'экзамен');

INSERT INTO Discipline VALUES (6,'ПБ-202','Лекция',36,'зачёт с оценкой');

INSERT INTO Discipline VALUES (7,'ПБ-203','Практика',36,'экзамен');

INSERT INTO Discipline VALUES (8,'ПБ-204','Лекция',36,'экзамен');

INSERT INTO Discipline VALUES (9,'ПБ-193','Лекция',36,'курсовая работа');

INSERT INTO Discipline VALUES (10,'ПБ-192','Практика',36,'экзамен');

CREATE TABLE IF NOT EXISTS Timetable(ID INT PRIMARY KEY NOT NULL,

ID\_Groups INT REFERENCES Groups(ID)

ON DELETE CASCADE ON UPDATE

CASCADE,

ID\_Teacher INT REFERENCES Teacher(ID)

ON DELETE CASCADE ON UPDATE

CASCADE,

ID\_Discipline INT REFERENCES Discipline(ID)

ON DELETE CASCADE ON UPDATE

CASCADE,

NAME VARCHAR(30) NOT NULL,

Kind\_Of\_Couples VARCHAR(50) NOT NULL,

Day\_Of\_Week VARCHAR(15) NOT NULL,

Steam\_Time TIME NOT NULL,

Audience\_Number VARCHAR(4) NOT NULL);

INSERT INTO Timetable VALUES (1,1,1,1,'ПБ-193','Практика','Вторник','14:20','6270');

INSERT INTO Timetable VALUES (2,2,2,2,'ИСП-202с','Практика','Среда','8:30','3270');

INSERT INTO Timetable VALUES (3,3,3,3,'бГРАД-181','Лекция','Понедельник','16:05','6252');

INSERT INTO Timetable VALUES (4,4,4,4,'ПБ-192','Практика','Четверг','17:20','5270');

INSERT INTO Timetable VALUES (5,5,5,5,'ИСП-203','Практика','Понедельник','12:50','7270');

INSERT INTO Timetable VALUES (6,6,6,6,'бГРАД-193','Практика','Пятница','11:25','2317');

INSERT INTO Timetable VALUES (7,7,7,7,'ПБ-193','Лекция','Суббота','19:20','7561');

INSERT INTO Timetable VALUES (8,8,8,8,'ИСП-202с','Лекция','Вторник','14:20','6421');

INSERT INTO Timetable VALUES (9,9,9,9,'бГРАД-181','Практика','Вторник','14:20','6270');

INSERT INTO Timetable VALUES (10,10,10,10,'ПБ-193','Практика','Вторник','19:20','6271');

select \* from Timetable

select \* from Groups

select \* from Teacher

select \* from Students

select \* from Faculties

select \* from Specialist

select \* from Discipline

CREATE OR REPLACE VIEW myTimetable3 AS

SELECT Groups.name AS Группа, Teacher.FIO AS Преподаватель, Discipline.name AS Дисциплина, Timetable.name AS Тема, Kind\_Of\_Couples AS Занятие, Day\_Of\_Week AS День, Steam\_Time AS Время, Audience\_Number AS Аудитория

FROM Timetable, Groups, Teacher, Discipline

WHERE Groups.ID = Timetable.ID\_Groups AND Teacher.ID = Timetable.ID\_Teacher AND Discipline.ID = Timetable.ID\_Discipline;

CREATE OR REPLACE VIEW myTimetable4 AS

SELECT Timetable.ID as №, Groups.name AS Группа, Teacher.FIO AS Преподаватель, Discipline.name AS Дисциплина, Timetable.name AS Тема, Kind\_Of\_Couples AS Занятие, Day\_Of\_Week AS День, Steam\_Time AS Время, Audience\_Number AS Аудитория

FROM Timetable, Groups, Teacher, Discipline

WHERE Groups.ID = Timetable.ID\_Groups AND Teacher.ID = Timetable.ID\_Teacher AND Discipline.ID = Timetable.ID\_Discipline;

SELECT \* FROM myTimetable4;

SELECT \* FROM Timetable;

Insert Into myTimetable3

Values ('бГРАД-183', 'Шершанский Яков Осипович', 'Управление', 'ПРаво', 'Практика', 'Вторник', '12:00', '5678');

CREATE FUNCTION timetable\_new\_info(id integer, new\_id\_g integer, new\_id\_t integer, new\_id\_d integer, new\_NAME VARCHAR(30), new\_Kind\_Of\_Couples VARCHAR(50), new\_Day\_Of\_Week VARCHAR(15), new\_Steam\_Time TIME, new\_Audience\_Number VARCHAR(4)) RETURNS void AS $$

UPDATE timetable

SET ID\_Groups = new\_id\_g, ID\_Teacher = new\_id\_t, ID\_Discipline = new\_id\_d, NAME = new\_NAME, Kind\_Of\_Couples = new\_Kind\_Of\_Couples, Day\_Of\_Week = new\_Day\_Of\_Week, Steam\_Time = new\_Steam\_Time, Audience\_Number = new\_Audience\_Number

WHERE id = id;

$$ LANGUAGE SQL;

DELETE from Timetable where ID=103

Select \* from myTimetable3 where Группа like '%а%' or Преподаватель like '%а%' or Дисциплина like '%а%' or Тема like '%а%' or Занятие like '%а%' or День like '%а%' or Аудитория like '%а%'

select \* from myTimetable4 where №=3

select id from Groups where name = 'ПБ-201'

select \* from Teacher

select \* from Discipline

select ID, fio from Teacher

select \* from Groups

Select ID, name from Discipline

CREATE OR REPLACE VIEW myTeacher1 AS

SELECT Teacher.ID as №, position AS Специальность, Department\_name AS Кафедра, work\_experience AS Опыт\_работы, Teacher.fio AS ФИО, salary AS Зарплата, personal\_number AS Персональный\_номер

FROM Teacher, Specialist

WHERE Specialist.ID = Teacher.ID\_specialist ;

select \* from myTeacher1

Insert Into Teacher

Values (11,1, '5 лет', 'Шершанский Яков Осипович', 13000, 3256);

CREATE FUNCTION teacher\_new\_info(id integer, new\_id\_s integer, new\_work VARCHAR(20), new\_fio VARCHAR(50), new\_salary integer, new\_pers integer) RETURNS void AS $$

UPDATE teacher

SET ID\_Specialist = new\_id\_s, work\_experience = new\_work, fio = new\_fio, salary = new\_salary, personal\_number = new\_pers

WHERE id = id;

$$ LANGUAGE SQL;

DELETE from Teacher where ID=1

select \* from Students

CREATE OR REPLACE VIEW myTeacher1 AS

SELECT Teacher.ID as №, position AS Специальность, Department\_name AS Кафедра, work\_experience AS Опыт\_работы, Teacher.fio AS ФИО, salary AS Зарплата, personal\_number AS Персональный\_номер

FROM Teacher, Specialist

WHERE Specialist.ID = Teacher.ID\_specialist ;

CREATE FUNCTION students\_new\_info(id integer, new\_fio VARCHAR(50), new\_numb VARCHAR(15), new\_gr VARCHAR(30), new\_date date) RETURNS void AS $$

UPDATE students

SET fio = new\_fio, phone\_number = new\_numb, groupss = new\_gr, date\_of\_birth = new\_date

WHERE id = id;

$$ LANGUAGE SQL;

select \* from students where ID = 12

select \* from myTeacher1 where №=10

/\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\*/

CREATE SEQUENCE groups\_id\_seq;

CREATE SEQUENCE teacher\_id\_seq;

CREATE SEQUENCE discipline\_id\_seq;

CREATE SEQUENCE timetable\_id\_seq;

CREATE TRIGGER timetable\_info\_insert

INSTEAD OF INSERT

ON myTimetable3

/\* DECLARE\*/

-- Курсор для получения идентификатора курьера по имени

CURSOR curs\_get\_groups\_id (cp\_groups\_name VARCHAR2)

IS

SELECT ID

FROM Groups

WHERE name = cp\_groups\_name;

v\_groups\_id int;

-- курсор для получения идентификатора района по названию

CURSOR curs\_get\_teacher\_id (cp\_teacher\_fio VARCHAR2)

IS

SELECT ID

FROM Teacher

WHERE FIO = cp\_teacher\_fio;

v\_teacher\_id int;

CURSOR curs\_get\_discipline\_id (cp\_discipline\_name VARCHAR2)

IS

SELECT ID

FROM Discipline

WHERE name = cp\_discipline\_name;

v\_discipline\_id int;

/\*BEGIN

/\* Значение столбца delivery\_end должно быть равно NULL

\*/

IF :NEW.delivery\_end IS NOT NULL

THEN

raise\_application\_error

(-20000

, 'Delivery end date value must be NULL when delivery created'

);

END IF;\*/

/\*

|| Попытка получить идентификатор курьера по имени.

|| Если имя не найдено, создаем новый идентификатор

|| на основе последовательности.

\*/

OPEN curs\_get\_groups\_id (UPPER (:NEW.name));

FETCH curs\_get\_groups\_id

INTO v\_groups\_id;

IF curs\_get\_groups\_id%NOTFOUND

THEN

SELECT groups\_id\_seq.NEXTVAL

INTO v\_groups\_id

FROM DUAL;

INSERT INTO groups

(id, name

)

VALUES (v\_groups\_id, UPPER (:NEW.name)

);

END IF;

CLOSE curs\_get\_groups\_id;

/\*

|| Попытка получить идентификатор района по названию.

|| Если название не найдено, создаем новый идентификатор

|| на основе последовательности.

\*/

OPEN curs\_get\_teacher\_id (UPPER (:NEW.FIO));

FETCH curs\_get\_teacher\_id

INTO v\_teacher\_id;

IF curs\_get\_teacher\_id%NOTFOUND

THEN

SELECT teacher\_id\_seq.NEXTVAL

INTO v\_teacher\_id

FROM DUAL;

INSERT INTO teacher

(id, FIO

)

VALUES (v\_teacher\_id, UPPER (:NEW.FIO)

);

END IF;

CLOSE curs\_get\_teacher\_id;

OPEN curs\_get\_discipline\_id (UPPER (:NEW.name));

FETCH curs\_get\_discipline\_id

INTO v\_discipline\_id;

IF curs\_get\_discipline\_id%NOTFOUND

THEN

SELECT discipline\_id\_seq.NEXTVAL

INTO v\_discipline\_id

FROM DUAL;

INSERT INTO discipline

(id, name

)

VALUES (v\_discipline\_id, UPPER (:NEW.name)

);

END IF;

CLOSE curs\_get\_discipline\_id;

INSERT INTO timetable

(id, ID\_Groups , ID\_Teacher, ID\_Discipline, name, kind\_of\_couples, Day\_of\_week, steam\_time, audience\_number

)

VALUES (timetable\_id\_seq.NEXTVAL,

, v\_groups\_id, v\_teacher\_id , v\_discipline\_id, name, kind\_of\_couples, Day\_of\_week, steam\_time, audience\_number

);

END;