

<https://bit.ly/3WZOKFJ>

-- Alumnos

```
CREATE TABLE Alumnos (  
  matricula varchar(10) NOT NULL,  
  nombre varchar(25) DEFAULT NULL,  
  paterno varchar(25) DEFAULT NULL,  
  fnac date DEFAULT NULL,  
  estatura decimal(10,2) DEFAULT NULL,  
  PRIMARY KEY (matricula)  
);
```

```
INSERT INTO modulo11.Alumnos VALUES ('100F', 'Omar', 'Mendoza', '1977-06-26', '1.74');  
INSERT INTO modulo11.Alumnos VALUES ('1A', 'Juan', 'Lopez', '2001-01-01', '1.78');  
INSERT INTO modulo11.Alumnos VALUES ('2A', 'Nadia', 'Perez', '2001-01-10', '1.56');  
INSERT INTO modulo11.Alumnos VALUES ('3B', 'Perla Martha', 'Rios', '2001-01-20', '1.62');  
INSERT INTO modulo11.Alumnos VALUES ('4A', 'Carlos', 'Madero', '2001-01-01', '1.68');  
INSERT INTO modulo11.Alumnos VALUES ('5A', 'Javier', 'Amaro', '2001-02-10', '1.75');  
INSERT INTO modulo11.Alumnos VALUES ('6C', 'Jesus', 'Garcia', '2001-03-20', '1.65');  
INSERT INTO modulo11.Alumnos VALUES ('7B', 'Gema', null, '2001-03-20', '1.53');
```

-- Acceso por campos

```
DROP TABLE if exists EMPLOYEE;
```

```
CREATE TABLE Employee (id INTEGER NOT NULL, name VARCHAR(255), salary BIGINT,  
  PRIMARY KEY (id));
```

```
INSERT INTO Employee VALUES ('100', 'Oscar', '1000');  
INSERT INTO Employee VALUES ('200', 'Paula', '2000');  
INSERT INTO Employee VALUES ('300', 'Nadia', '3000');
```

-- Acceso por Schema

```
CREATE DATABASE modulo11RH;  
CREATE TABLE modulo11RH.RH_Employee (id INTEGER NOT NULL, name  
  VARCHAR(255), salary BIGINT, PRIMARY KEY (id));
```

```
INSERT INTO modulo11RH.RH_Employee VALUES ('1', 'Oscar', '1000');
INSERT INTO modulo11RH.RH_Employee VALUES ('2', 'Paula', '2000');
INSERT INTO modulo11RH.RH_Employee VALUES ('3', 'Nadia', '3000');
```

-- Mixed Access

```
DROP TABLE if exists EMPLOYEE;
```

```
CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL, PHONE VARCHAR(255), NAME
VARCHAR(255), SALARY BIGINT, PRIMARY KEY (ID));
```

```
INSERT INTO Employee VALUES ('100', '667788', 'Oscar', '1000');
INSERT INTO Employee VALUES ('200', '778899', 'Paula', '2000');
INSERT INTO Employee VALUES ('300', '998877', 'Nadia', '3000');
```

-- CUSTOM TABLE SCHEMA

```
CREATE DATABASE if NOT exists modulo11;
```

```
DROP TABLE if exists modulo11.EMP;
```

```
CREATE TABLE modulo11.EMP (EMP_ID INTEGER NOT NULL, NAME VARCHAR(255),
SAL BIGINT, COMM VARCHAR(255), PRIMARY KEY (EMP_ID));
```

```
INSERT INTO modulo11.EMP (EMP_ID, NAME, SAL, COMM) VALUES ('500', 'OLGA',
'1000', 'TELECOM');
INSERT INTO modulo11.EMP (EMP_ID, NAME, SAL, COMM) VALUES ('600', 'RICARDO',
'2000', 'DIRECCION');
INSERT INTO modulo11.EMP (EMP_ID, NAME, SAL, COMM) VALUES ('700', 'CARLA',
'3000', 'SISTEMAS');
```

```
select * from modulo11.emp;
```

-- ENUMERATE

```
DROP TABLE if exists EMPLOYEE;
```

```
CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL, NAME VARCHAR(255), SALARY
BIGINT, TYPE INTEGER, PREVIOUS TYPE VARCHAR(64), PRIMARY KEY (ID));
```

```
INSERT INTO Employee (ID, NAME, SALARY, TYPE, PREVIOUS TYPE) VALUES ('100',
'OSCAR', '1000', '0', 'FULL_TIME_EMPLOYEE');
INSERT INTO Employee (ID, NAME, SALARY, TYPE, PREVIOUS TYPE) VALUES ('200',
'PAULA', '2000', '1', 'PART_TIME_EMPLOYEE');
INSERT INTO Employee (ID, NAME, SALARY, TYPE, PREVIOUS TYPE) VALUES ('300',
'NADIA', '3000', '2', 'CONTRACT_EMPLOYEE');
```

```
INSERT INTO Employee (ID, NAME, SALARY, TYPE, PREVIOUS TYPE) VALUES ('400',  
'RAUL', '4000', '2', 'CONTRACT_EMPLOYEE');  
select * from EMPLOYEE;
```

-- TEMPORAL

```
DROP TABLE if exists EMPLOYEE;
```

```
CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL, NAME VARCHAR(255), SALARY  
BIGINT, DOB DATE, S_DATE DATE, PRIMARY KEY (ID));
```

```
INSERT INTO Employee (ID, NAME, SALARY, DOB, S_DATE) VALUES ('100', 'OSCAR',  
'1000', '2000-10-14', '2022-01-02');  
INSERT INTO Employee (ID, NAME, SALARY, DOB, S_DATE) VALUES ('200', 'PAULA',  
'2000', '2001-04-09', '2022-01-02');  
INSERT INTO Employee (ID, NAME, SALARY, DOB, S_DATE) VALUES ('300', 'NADIA',  
'3000', '1998-07-08', '2022-01-02');
```

```
select * from EMPLOYEE;
```

-- auto_increment IDENTITY

```
select * from Employee;
```

```
DROP TABLE if exists EMPLOYEE;
```

```
CREATE TABLE Employee (id INTEGER NOT NULL auto_increment, name  
VARCHAR(255), salary BIGINT, PRIMARY KEY (id));
```

```
INSERT INTO Employee VALUES ('100', 'Oscar', '1000');  
INSERT INTO Employee VALUES ('200', 'Paula', '2000');  
INSERT INTO Employee VALUES ('300', 'Nadia', '3000');
```

-- GenerationType.SEQUENCE

```
DROP TABLE if exists EMPLOYEE;  
DROP TABLE if exists SEQUENCE;
```

```
CREATE TABLE SEQUENCE (SEQ_NAME VARCHAR(64), SEQ_COUNT INTEGER);  
CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL, NAME VARCHAR(255), SALARY  
BIGINT, PRIMARY KEY (ID));
```

```
INSERT INTO SEQUENCE (SEQ_NAME, SEQ_COUNT ) VALUES('SEQ_EMP',1);
```

```
INSERT INTO Employee VALUES ('100', 'Oscar', '1000');
```

```
INSERT INTO Employee VALUES ('200', 'Paula', '2000');
INSERT INTO Employee VALUES ('300', 'Nadia', '3000');
```

```
select * from SEQUENCE;
```

-- GenerationType.TABLE

```
DROP TABLE IF EXISTS EMPLOYEE;
DROP TABLE IF EXISTS ID_GEN;
```

```
CREATE TABLE Employee (id INTEGER NOT NULL, name VARCHAR(255), salary BIGINT,
PRIMARY KEY (id));
CREATE TABLE ID_GEN (GEN_NAME VARCHAR(80), GEN_VAL INTEGER, PRIMARY
KEY (GEN_NAME));
```

```
INSERT INTO Employee VALUES ('100', 'Oscar', '1000');
INSERT INTO Employee VALUES ('200', 'Paula', '2000');
INSERT INTO Employee VALUES ('300', 'Nadia', '3000');
```

```
INSERT INTO ID_GEN (GEN_NAME, GEN_VAL) VALUES ('Emp_Gen', 0);
```

```
select * from Employee;
select * from ID_GEN;
```

-- One to One

```
DROP TABLE IF EXISTS EMPLOYEE;
DROP TABLE IF EXISTS ADDRESS;
DROP TABLE IF EXISTS ID_GEN;
```

```
CREATE TABLE ADDRESS (ID INTEGER NOT NULL, CITY VARCHAR(255), STATE
VARCHAR(255), STREET VARCHAR(255), ZIP VARCHAR(255), PRIMARY KEY (ID));
CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL, NAME VARCHAR(255), SALARY
BIGINT, ADDRESS_ID INTEGER,
CONSTRAINT ADDRESS_FK FOREIGN KEY (ADDRESS_ID)
REFERENCES ADDRESS (ID), PRIMARY KEY (ID));
CREATE TABLE ID_GEN (GEN_NAME VARCHAR(80), GEN_VAL INTEGER, PRIMARY
KEY (GEN_NAME));
```

```
INSERT INTO ID_GEN (GEN_NAME, GEN_VAL) VALUES ('Emp_Gen', 0);
INSERT INTO ID_GEN (GEN_NAME, GEN_VAL) VALUES ('Addr_Gen', 10000);
```

```
select * from Employee;
select * from ADDRESS;
select * from ID_GEN;
```

-- ManyToOne

```
DROP TABLE IF EXISTS EMPLOYEE;  
DROP TABLE IF EXISTS DEPARTMENT;
```

```
CREATE TABLE DEPARTMENT (ID INTEGER NOT NULL auto_increment,  
                           NAME VARCHAR(255), PRIMARY KEY (ID));  
CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL auto_increment,  
                         NAME VARCHAR(255), SALARY BIGINT,  
                         DEPARTMENT_ID INTEGER, PRIMARY KEY (ID),  
                         CONSTRAINT DEPT_FK FOREIGN KEY (DEPARTMENT_ID)  
REFERENCES DEPARTMENT (ID));
```

```
INSERT INTO DEPARTMENT (ID, NAME) VALUES ('1', 'TIC'),('2', 'MKT'),('3', 'VENTAS'),('4',  
'COMPRAS'),('5', 'SEGURIDAD');
```

```
INSERT INTO Employee VALUES ('100', 'OSCAR', '1000', '1'),('200', 'PAULA', '2000',  
'1'),('300', 'NADIA', '3000', '3');
```

```
select * from EMPLOYEE;  
select * from DEPARTMENT;
```

-- JoinColumn

```
DROP TABLE IF EXISTS EMPLOYEE;  
DROP TABLE IF EXISTS DEPARTMENT;
```

```
CREATE TABLE DEPARTMENT (ID INTEGER NOT NULL auto_increment,  
                           NAME VARCHAR(255), PRIMARY KEY (ID));  
CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL auto_increment,  
                         NAME VARCHAR(255), SALARY BIGINT,  
                         DEPT_ID INTEGER, PRIMARY KEY (ID));
```

```
INSERT INTO DEPARTMENT (ID, NAME) VALUES ('1', 'TIC'),('2', 'MKT'),('3', 'VENTAS'),('4',  
'COMPRAS'),('5', 'SEGURIDAD');
```

```
INSERT INTO Employee VALUES ('100', 'OSCAR', '1000', '1'),('200', 'PAULA', '2000',  
'1'),('300', 'NADIA', '3000', '3');
```

```
select * from EMPLOYEE;  
select * from DEPARTMENT;
```

-- oneToOneUnidirectional

```
DROP TABLE IF EXISTS EMPLOYEE;
```

```
DROP TABLE IF EXISTS PARKING_SPACE;
```

```
CREATE TABLE PARKING_SPACE (ID INTEGER NOT NULL auto_increment,  
                             LOT INTEGER, LOCATION VARCHAR(255), PRIMARY KEY (ID));
```

```
CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL auto_increment,  
                        NAME VARCHAR(255), SALARY BIGINT,  
                        PSPACE_ID INTEGER, PRIMARY KEY (ID),  
                        CONSTRAINT PSPACE_FK FOREIGN KEY (PSPACE_ID) REFERENCES  
PARKING_SPACE(ID));
```

```
INSERT INTO PARKING_SPACE VALUES ('1', 100, 'ME100'),('2', 200, 'MKT200'),('3', 300,  
'VTA300'),('4', 400, 'COM400'),('5', 500, 'SEG500');
```

```
INSERT INTO Employee VALUES ('100', 'OSCAR', '1000', '1'),('200', 'PAULA', '2000',  
'2'),('300', 'NADIA', '3000', '3');
```

```
select * from EMPLOYEE;
```

```
select * from PARKING_SPACE;
```

-- oneToOnePkMapping

```
DROP TABLE IF EXISTS EMPLOYEE;
```

```
DROP TABLE IF EXISTS PARKING_SPACE;
```

```
CREATE TABLE PARKING_SPACE (ID INTEGER NOT NULL, LOT INTEGER, LOCATION  
VARCHAR(255), PRIMARY KEY (ID));
```

```
CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL, NAME VARCHAR(255), SALARY  
BIGINT, PRIMARY KEY (ID));
```

```
INSERT INTO PARKING_SPACE VALUES ('1', 100, 'ME100'),  
                                   ('2', 200, 'MKT200'),  
                                   ('3', 300, 'VTA300'),  
                                   ('4', 400, 'COM400'),  
                                   ('5', 500, 'SEG500');
```

```
INSERT INTO Employee VALUES ('1', 'OSCAR', '1000'),  
                             ('2', 'PAULA', '2000'),  
                             ('3', 'NADIA', '3000');
```

```
select * from EMPLOYEE;
```

```
select * from PARKING_SPACE;
```

-- manyToManyJoinTable

```
DROP TABLE IF EXISTS EMPLOYEE_PROJECT;
DROP TABLE IF EXISTS EMP_PROJ;
DROP TABLE IF EXISTS EMPLOYEE;
DROP TABLE IF EXISTS PROJECT;

CREATE TABLE PROJECT (ID INTEGER NOT NULL auto_increment,
                        NAME VARCHAR(255), PRIMARY KEY (ID));
CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL auto_increment,
                        NAME VARCHAR(255), SALARY BIGINT, PRIMARY KEY (ID));
CREATE TABLE EMP_PROJ (PROJ_ID INTEGER NOT NULL, EMP_ID INTEGER NOT
NULL,
                        CONSTRAINT PROJ_FK FOREIGN KEY (PROJ_ID) REFERENCES
PROJECT (ID),
                        CONSTRAINT EMP_FK FOREIGN KEY (EMP_ID) REFERENCES
EMPLOYEE (ID),
                        PRIMARY KEY (PROJ_ID, EMP_ID));

INSERT INTO PROJECT VALUES ('1', 'CEU'),('2', 'RSU'),('3', 'BDU'),('4', 'CRM'),('5', 'ERP');

INSERT INTO Employee VALUES ('100', 'OSCAR', '1000'),('200', 'PAULA', '2000'),('300',
'NADIA', '3000'), ('400', 'MARCO', '4000');

INSERT INTO EMP_PROJ VALUES (1, 200), (1, 300), (1, 400), (2, 100), (2, 400), (3, 300),
(4, 300), (4, 200), (4, 400), (4, 100), (5, 300), (5, 100);

select * from EMPLOYEE;
select * from PROJECT;
select * from EMP_PROJ;
```

-- embeddedObjects

```
DROP TABLE IF EXISTS EMPLOYEE_PROJECT;
DROP TABLE IF EXISTS EMP_PROJ;
DROP TABLE IF EXISTS PROJECT;

DROP TABLE IF EXISTS EMPLOYEE;

CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL AUTO_INCREMENT, NAME
VARCHAR(255), SALARY BIGINT, STREET VARCHAR(255), CITY VARCHAR(255), STATE
VARCHAR(255), ZIP_CODE VARCHAR(255), PRIMARY KEY (ID));

DROP TABLE IF EXISTS COMPANY;
CREATE TABLE COMPANY (ID INTEGER NOT NULL, STREET VARCHAR(255), CITY
VARCHAR(255), STATE VARCHAR(255), ZIP_CODE VARCHAR(255), PRIMARY KEY
(ID));
```

```
INSERT INTO Employee VALUES ('100', 'OSCAR', '1000', 'RANCHO SECO S/N', 'CDMX',  
'CDMX', '56200'), ('200', 'PAULA', '2000', 'AV. TECNOLOGICO 100', 'MORELIA', 'MICH',  
'58000'), ('300', 'NADIA', '3000', 'AV. UNIVERSIDAD 3000', 'GUADALAJARA', 'JAL', '44100'),  
( '400', 'MARCO', '4000', 'PASEO ALTO 456', 'MONTERREY', 'NL', '64000');
```

```
select * from Employee;
```

-- sharingEmbeddedObjects

```
DROP TABLE IF EXISTS EMPLOYEE;  
CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL AUTO_INCREMENT, NAME  
VARCHAR(255), SALARY BIGINT, STREET VARCHAR(255), CITY VARCHAR(255),  
PROVINCE VARCHAR(255), POSTAL_CODE VARCHAR(255), PRIMARY KEY (ID));
```

```
DROP TABLE IF EXISTS COMPANY;  
CREATE TABLE COMPANY (ID INTEGER NOT NULL AUTO_INCREMENT, NAME  
VARCHAR(255), STREET VARCHAR(255), CITY VARCHAR(255), STATE VARCHAR(255),  
ZIP_CODE VARCHAR(255), PRIMARY KEY (ID));
```

```
INSERT INTO Employee VALUES ('100', 'OSCAR', '1000', 'RANCHO SECO S/N', 'CDMX',  
'CDMX', '56200'), ('200', 'PAULA', '2000', 'AV. TECNOLOGICO 100', 'MORELIA', 'MICH',  
'58000'), ('300', 'NADIA', '3000', 'AV. UNIVERSIDAD 3000', 'GUADALAJARA', 'JAL', '44100'),  
( '400', 'MARCO', '4000', 'PASEO ALTO 456', 'MONTERREY', 'NL', '64000');
```

```
INSERT INTO COMPANY VALUES ('1', 'ABC', 'RANCHO SECO S/N', 'CDMX', 'CDMX',  
'56200'), ('2', 'IBD', 'AV. TECNOLOGICO 100', 'MORELIA', 'MICH', '58000'), ('3', 'ORC', 'AV.  
UNIVERSIDAD 3000', 'GUADALAJARA', 'JAL', '44100');
```

```
select * from Employee;  
select * from COMPANY;
```

-- 01 elementCollection

```
DROP TABLE IF EXISTS Employee_VACATIONBOOKINGS;  
DROP TABLE IF EXISTS Employee_NICKNAMES;  
DROP TABLE IF EXISTS EMPLOYEE;  
CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL auto_increment, NAME  
VARCHAR(255), SALARY BIGINT, PRIMARY KEY (ID));  
CREATE TABLE Employee_VACATIONBOOKINGS (Employee_ID INTEGER NOT NULL,  
STARTDATE VARCHAR(255), DAYS INTEGER);  
CREATE TABLE Employee_NICKNAMES (Employee_ID INTEGER NOT NULL,  
NICKNAMES VARCHAR(255));
```



```

INSERT INTO EMPLOYEE VALUES ('100', 'OSCAR', '1000'),('200', 'PAULA', '2000'),('300',
'NADIA', '3000'), ('400', 'MARCO', '4000');
INSERT INTO Employee_VACATIONBOOKINGS VALUES (100, '2020-05-01', 5), (100,
'2021-05-15', 7), (100, '2022-04-01', 8), (200, '2020-03-01', 3), (200, '2021-05-15', 4) , (300,
'2020-05-01', 8), (300, '2021-06-15', 7), (300, '2022-01-01', 7);
INSERT INTO Employee_NICKNAMES VALUES ('100', 'OSCARito'),('200', 'PAULita'),('100',
'El oscar'), ('400', 'MARCOS');
select * from Employee_VACATIONBOOKINGS;
select * from Employee_NICKNAMES;
select * from EMPLOYEE;

```

-- 02-overrideCollectionTableColumn

```

DROP TABLE IF EXISTS Employee_VACATION;
DROP TABLE IF EXISTS Employee_NICKNAMES;
DROP TABLE IF EXISTS EMPLOYEE;
CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL auto_increment, NAME
VARCHAR(255), SALARY BIGINT, PRIMARY KEY (ID));
CREATE TABLE Employee_VACATION (Employee_ID INTEGER NOT NULL, STARTDATE
VARCHAR(255), DAYS_ABS INTEGER);
CREATE TABLE Employee_NICKNAMES (Employee_ID INTEGER NOT NULL,
NICKNAMES VARCHAR(255));

```

```

INSERT INTO EMPLOYEE VALUES ('100', 'OSCAR', '1000'),('200', 'PAULA', '2000'),('300',
'NADIA', '3000'), ('400', 'MARCO', '4000');
INSERT INTO Employee_VACATION VALUES (100, '2020-05-01', 5), (100, '2021-05-15', 7),
(100, '2022-04-01', 8), (200, '2020-03-01', 3), (200, '2021-05-15', 4) , (300, '2020-05-01', 8),
(300, '2021-06-15', 7), (300, '2022-01-01', 7);

```

```

INSERT INTO Employee_NICKNAMES VALUES ('100', 'OSCARito'),('200', 'PAULita'),('100',
'El oscar'), ('400', 'MARCOS');

```

```

select * from Employee_VACATION;
select * from Employee_NICKNAMES;
select * from EMPLOYEE;

```

-- 03-tablePerConcreteClass

```
DROP TABLE IF EXISTS CONTRACT_EMP;  
DROP TABLE IF EXISTS PT_EMP;  
DROP TABLE IF EXISTS FT_EMP;  
DROP TABLE IF EXISTS EMPLOYEE;
```

```
CREATE TABLE EMPLOYEE (ID INTEGER NOT NULL, NAME VARCHAR(255), S_DATE  
DATE, PRIMARY KEY (ID));
```

```
CREATE TABLE FT_EMP (ID INTEGER NOT NULL, NAME VARCHAR(255), S_DATE  
DATE, VACATION INTEGER, MANAGER_ID INTEGER,  
SALARY BIGINT, PENSION BIGINT, MANAGER INTEGER, PRIMARY KEY  
(ID));
```

```
CREATE TABLE PT_EMP (ID INTEGER NOT NULL, NAME VARCHAR(255), S_DATE  
DATE, VACATION INTEGER, MANAGER_ID INTEGER,  
H_RATE FLOAT, MGR INTEGER, PRIMARY KEY (ID));
```

```
CREATE TABLE CONTRACT_EMP (ID INTEGER NOT NULL, FULLNAME  
VARCHAR(255), SDATE DATE, D_RATE INTEGER, TERM INTEGER, PRIMARY KEY (ID));
```

```
INSERT INTO CONTRACT_EMP (ID, FULLNAME, SDATE, D_RATE, TERM) VALUES (1,  
'OSCAR', {d '2001-01-01'}, 500, 12);  
INSERT INTO CONTRACT_EMP (ID, FULLNAME, SDATE, D_RATE, TERM) VALUES (2,  
'PAULA', {d '2002-04-08'}, 600, 24);  
INSERT INTO CONTRACT_EMP (ID, FULLNAME, SDATE, D_RATE, TERM) VALUES (3,  
'NADIA', {d '2003-06-10'}, 700, 18);  
INSERT INTO FT_EMP (ID, NAME, S_DATE, VACATION, SALARY, PENSION) VALUES (4,  
'MARCO', {d '2004-07-01'}, 15, 55000, 100000);  
INSERT INTO FT_EMP (ID, NAME, S_DATE, VACATION, SALARY, PENSION) VALUES (5,  
'JUAN', {d '2003-09-09'}, 15, 59000, 200000);  
INSERT INTO FT_EMP (ID, NAME, S_DATE, VACATION, SALARY, PENSION) VALUES (6,  
'SAMANTA', {d '2000-03-12'}, 20, 60000, 450000);  
INSERT INTO PT_EMP (ID, NAME, S_DATE, VACATION, H_RATE) VALUES (7, 'MARTHA',  
{d '2004-11-01'}, 15, 17.0);  
INSERT INTO PT_EMP (ID, NAME, S_DATE, VACATION, H_RATE) VALUES (8, 'RAUL', {d  
'2005-12-05'}, 15, 16.0);  
INSERT INTO PT_EMP (ID, NAME, S_DATE, VACATION, H_RATE) VALUES (9, 'JAZMIN',  
{d '2006-01-03'}, 10, 15.0);
```

```
select * from CONTRACT_EMP;  
select * from PT_EMP;  
select * from FT_EMP;
```

-- 04-singleTableInheritance

```
DROP TABLE IF EXISTS EMP;
```

```
CREATE TABLE EMP (ID INTEGER NOT NULL, NAME VARCHAR(255), S_DATE DATE,  
D_RATE INTEGER, TERM INTEGER,  
VACATION INTEGER, H_RATE FLOAT, SALARY BIGINT, PENSION BIGINT,  
EMP_TYPE VARCHAR(32),  
PRIMARY KEY (ID));
```

```
INSERT INTO EMP (ID, NAME, S_DATE, D_RATE, TERM, VACATION, H_RATE, SALARY,  
PENSION, EMP_TYPE)
```

```
VALUES (1, 'OSCAR', {d '2001-01-01'}, 500, 12, NULL, NULL, NULL, NULL,  
'ContractEmployee');
```

```
INSERT INTO EMP (ID, NAME, S_DATE, D_RATE, TERM, VACATION, H_RATE, SALARY,  
PENSION, EMP_TYPE)
```

```
VALUES (2, 'PAULA', {d '2002-04-08'}, 600, 24, NULL, NULL, NULL, NULL,  
'ContractEmployee');
```

```
INSERT INTO EMP (ID, NAME, S_DATE, D_RATE, TERM, VACATION, H_RATE, SALARY,  
PENSION, EMP_TYPE)
```

```
VALUES (3, 'NADIA', {d '2003-06-10'}, 700, 18, NULL, NULL, NULL, NULL,  
'ContractEmployee');
```

```
INSERT INTO EMP (ID, NAME, S_DATE, D_RATE, TERM, VACATION, H_RATE, SALARY,  
PENSION, EMP_TYPE)
```

```
VALUES (4, 'MARCO', {d '2004-07-01'}, NULL, NULL, 15, NULL, 55000,  
100000, 'FTEmp');
```

```
INSERT INTO EMP (ID, NAME, S_DATE, D_RATE, TERM, VACATION, H_RATE, SALARY,  
PENSION, EMP_TYPE)
```

```
VALUES (5, 'JUAN', {d '2003-09-09'}, NULL, NULL, 15, NULL, 59000,  
200000, 'FTEmp');
```

```
INSERT INTO EMP (ID, NAME, S_DATE, D_RATE, TERM, VACATION, H_RATE, SALARY,  
PENSION, EMP_TYPE)
```

```
VALUES (6, 'SAMANTA', {d '2000-03-12'}, NULL, NULL, 20, NULL, 60000,  
450000, 'FTEmp');
```

```
INSERT INTO EMP (ID, NAME, S_DATE, D_RATE, TERM, VACATION, H_RATE, SALARY,  
PENSION, EMP_TYPE)
```

```
VALUES (7, 'MARTHA', {d '2004-11-01'}, NULL, NULL, 15, 17.0, NULL,  
NULL, 'PTemp');
```

```
INSERT INTO EMP (ID, NAME, S_DATE, D_RATE, TERM, VACATION, H_RATE, SALARY,  
PENSION, EMP_TYPE)
```

```
VALUES (8, 'RAUL', {d '2005-12-05'}, NULL, NULL, 15, 16.0, NULL, NULL,  
'PTemp');
```

```
INSERT INTO EMP (ID, NAME, S_DATE, D_RATE, TERM, VACATION, H_RATE, SALARY,  
PENSION, EMP_TYPE)
```

```
VALUES (9, 'JAZMIN', {d '2006-01-03'}, NULL, NULL, 10, 15.0, NULL, NULL,  
'PTemp');
```

```
select * from EMP;
```

-- 05 -joinedTableInheritance

```
DROP TABLE IF EXISTS CONTRACT_EMP;  
DROP TABLE IF EXISTS PT_EMP;  
DROP TABLE IF EXISTS FT_EMP;  
DROP TABLE IF EXISTS EMP;
```

```
CREATE TABLE EMP (ID INTEGER NOT NULL, NAME VARCHAR(255), S_DATE DATE,  
EMP_TYPE INTEGER, PRIMARY KEY (ID));  
CREATE TABLE FT_EMP (ID INTEGER NOT NULL, VACATION INTEGER, SALARY  
BIGINT, PENSION BIGINT, PRIMARY KEY (ID),  
CONSTRAINT FT_EMP_FK FOREIGN KEY (ID) REFERENCES EMP(ID));  
CREATE TABLE PT_EMP (ID INTEGER NOT NULL, VACATION INTEGER, H_RATE  
FLOAT, PRIMARY KEY (ID),  
CONSTRAINT PT_EMP_FK FOREIGN KEY (ID) REFERENCES EMP(ID));  
CREATE TABLE CONTRACT_EMP (ID INTEGER NOT NULL, D_RATE INTEGER, TERM  
INTEGER, PRIMARY KEY (ID),  
CONSTRAINT CONTRACT_EMP_FK FOREIGN KEY (ID) REFERENCES  
EMP(ID));
```

```
INSERT INTO EMP (ID, NAME, S_DATE, EMP_TYPE) VALUES (1, 'OSCAR', {d  
'2001-01-01'}, 1);  
INSERT INTO EMP (ID, NAME, S_DATE, EMP_TYPE) VALUES (2, 'PAULA', {d  
'2002-04-08'}, 1);  
INSERT INTO EMP (ID, NAME, S_DATE, EMP_TYPE) VALUES (3, 'NADIA', {d  
'2003-06-10'}, 1);  
INSERT INTO EMP (ID, NAME, S_DATE, EMP_TYPE) VALUES (4, 'MARCO', {d  
'2004-07-01'}, 2);  
INSERT INTO EMP (ID, NAME, S_DATE, EMP_TYPE) VALUES (5, 'JUAN', {d  
'2003-09-09'}, 2);  
INSERT INTO EMP (ID, NAME, S_DATE, EMP_TYPE) VALUES (6, 'SAMANTA', {d  
'2000-03-12'}, 2);  
INSERT INTO EMP (ID, NAME, S_DATE, EMP_TYPE) VALUES (7, 'MARTHA', {d  
'2004-11-01'}, 3);  
INSERT INTO EMP (ID, NAME, S_DATE, EMP_TYPE) VALUES (8, 'RAUL', {d  
'2005-12-05'}, 3);  
INSERT INTO EMP (ID, NAME, S_DATE, EMP_TYPE) VALUES (9, 'JAZMIN', {d  
'2006-01-03'}, 3);
```

```
INSERT INTO CONTRACT_EMP (ID, D_RATE, TERM) VALUES (1, 500, 12);  
INSERT INTO CONTRACT_EMP (ID, D_RATE, TERM) VALUES (2, 600, 24);
```

```
INSERT INTO CONTRACT_EMP (ID, D_RATE, TERM) VALUES (3, 700, 18);
```

```
INSERT INTO FT_EMP (ID, VACATION, SALARY, PENSION) VALUES (4, 15, 55000,  
100000);
```

```
INSERT INTO FT_EMP (ID, VACATION, SALARY, PENSION) VALUES (5, 15, 59000,  
200000);
```

```
INSERT INTO FT_EMP (ID, VACATION, SALARY, PENSION) VALUES (6, 20, 60000,  
450000);
```

```
INSERT INTO PT_EMP (ID, VACATION, H_RATE) VALUES (7, 15, 17.0);
```

```
INSERT INTO PT_EMP (ID, VACATION, H_RATE) VALUES (8, 15, 16.0);
```

```
INSERT INTO PT_EMP (ID, VACATION, H_RATE) VALUES (9, 10, 15.0);
```

```
select * from CONTRACT_EMP;
```

```
select * from PT_EMP;
```

```
select * from FT_EMP;
```

```
select * from EMP;
```