Ejercicio 3.

One to One unidireccional.

```java
@Entity
// @Table(name = "EMP", schema = "moduloll")
public class Employee {

    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private int id;
    private String name;
    private long salary;

    @OneToOne
    @JoinColumn(name = "PSPACE_ID")
    private ParkingSpace parkingSpace;

@Entity
@Table(name = "PARKING_SPACE")
public class ParkingSpace {

    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private int id;
    private int lot;
    private String location;
```

```
Empleados localizados
Employee [id=100, name=OSCAR, salary=1000, parkingSpace=ParkingSpace [id=1, lot=100, location=ME100]]
Employee [id=200, name=PAULA, salary=2000, parkingSpace=ParkingSpace [id=2, lot=200, location=MKT200]]
Employee [id=300, name=NADIA, salary=3000, parkingSpace=ParkingSpace [id=3, lot=300, location=VTA300]]
Employee [id=301, name=Kevin Lara, salary=5000, parkingSpace=ParkingSpace [id=4, lot=400, location=COM400]]
Employee [id=302, name=Kevin Lara, salary=5000, parkingSpace=ParkingSpace [id=4, lot=400, location=COM400]]
Employee [id=303, name=Kevin Lara, salary=5000, parkingSpace=ParkingSpace [id=6, lot=600, location=E-600]]
10:12:22.446 [main] DEBUG o.m.jdbc.client.impl.StandardClient - execute query: SELECT ID, LOCATION, LOT FROM PARKING_SPACE
Espacios localizados:
ParkingSpace [id=1, lot=100, location=ME100]
ParkingSpace [id=2, lot=200, location=MKT200]
ParkingSpace [id=3, lot=300, location=VTA300]
ParkingSpace [id=4, lot=400, location=COM400]
ParkingSpace [id=5, lot=500, location=SEG500]
ParkingSpace [id=6, lot=600, location=E-600]
```

One to One PKMapping.

```java
@Entity
// @Table(name = "EMP", schema = "moduloll")
public class Employee {

    @Id
    private int id;
    private String name;
    private long salary;

    @OneToOne(mappedBy = "employee")
    private ParkingSpace parkingSpace;
```

```java
@Entity
@Table(name = "PARKING_SPACE")
public class ParkingSpace {

    @Id
    private int id;
    private int lot;
    private String location;

    @OneToOne
    @PrimaryKeyJoinColumn
    private Employee employee;
```

```
Empleados localizados
Employee [id=1, name=OSCAR, salary=1000, parkingSpace=ParkingSpace [id=1, lot=100, location=ME100]]
Employee [id=2, name=PAULA, salary=2000, parkingSpace=ParkingSpace [id=2, lot=200, location=MKT200]]
Employee [id=3, name=NADIA, salary=3000, parkingSpace=ParkingSpace [id=3, lot=300, location=VTA300]]
Employee [id=500, name=Kevin Lara, salary=5000, parkingSpace=ParkingSpace [id=500, lot=500, location=E-500]]
11:04:53.503 [main] DEBUG o.m.jdbc.client.impl.StandardClient - execute query: SELECT ID, LOCATION, LOT FROM PARKING_SPACE
11:04:53.503 [main] DEBUG o.m.jdbc.client.impl.StandardClient - execute query: SELECT ID, NAME, SALARY FROM EMPLOYEE WHERE (ID = ?)
11:04:53.504 [main] DEBUG o.m.jdbc.client.impl.StandardClient - execute query: SELECT ID, NAME, SALARY FROM EMPLOYEE WHERE (ID = ?)
Espacios localizados:
ParkingSpace [id=1, lot=100, location=ME100]
Pertenece a: OSCAR
ParkingSpace [id=2, lot=200, location=MKT200]
Pertenece a: PAULA
ParkingSpace [id=3, lot=300, location=VTA300]
Pertenece a: NADIA
ParkingSpace [id=4, lot=400, location=COM400]
ParkingSpace [id=5, lot=500, location=SEG500]
ParkingSpace [id=500, lot=500, location=E-500]
Pertenece a: Kevin Lara
```

Many to Many

```
Project [id=1, name=CEU, employees=4]
Empleados del proyecto CEU:
PAULA
NADIA
MARCO
Kevin Lara
Project [id=2, name=RSU, employees=3]
Empleados del proyecto RSU:
OSCAR
MARCO
Kevin Lara
12:58:21.234 [main] DEBUG o.m.jdbc.client.impl.
?) AND (t1.ID = t0.EMP_ID))
Project [id=3, name=BDU, employees=1]
Empleados del proyecto BDU:
NADIA
12:58:21.234 [main] DEBUG o.m.jdbc.client.impl.
?) AND (t1.ID = t0.EMP_ID))
Project [id=4, name=CRM, employees=4]
Empleados del proyecto CRM:
OSCAR
PAULA
NADIA
MARCO
12:58:21.235 [main] DEBUG o.m.jdbc.client.impl.
?) AND (t1.ID = t0.EMP_ID))
Project [id=5, name=ERP, employees=2]
Empleados del proyecto ERP:
OSCAR
NADIA
Project [id=6, name=JAVA, employees=1]
Empleados del proyecto JAVA:
Kevin Lara
```

```
Proyectos del empleado OSCAR:
RSU
CRM
ERP
unam.dgtic.diplomado.m1100base.dominio.Employee@4a3631f8
12:58:21.231 [main] DEBUG o.m.jdbc.client.impl.StandardClient
 = t0.PROJ_ID))
Proyectos del empleado PAULA:
CEU
CRM
unam.dgtic.diplomado.m1100base.dominio.Employee@f14a7d4
12:58:21.232 [main] DEBUG o.m.jdbc.client.impl.StandardClient
 = t0.PROJ_ID))
Proyectos del empleado NADIA:
CEU
BDU
CRM
ERP
unam.dgtic.diplomado.m1100base.dominio.Employee@29a5f4e7
12:58:21.232 [main] DEBUG o.m.jdbc.client.impl.StandardClient
 = t0.PROJ_ID))
Proyectos del empleado MARCO:
CEU
RSU
CRM
unam.dgtic.diplomado.m1100base.dominio.Employee@25b2cfcb
12:58:21.233 [main] DEBUG o.m.jdbc.client.impl.StandardClient
 = t0.PROJ_ID))
El empleado Kevin Lara no tiene proyectos asignados
```

Embedded.

```
Empleados localizados
Employee [id=100, name=OSCAR, salary=1000, address=Address [street=RANCHO SECO S/N, city=CDMX, state=CDMX, zip=56200]]
Employee [id=200, name=PAULA, salary=2000, address=Address [street=AV. TECNOLOGICO 100, city=MORELIA, state=MICH, zip=58000]]
Employee [id=300, name=NADIA, salary=3000, address=Address [street=AV. UNIVERSIDAD 3000, city=GUADALAJARA, state=JAL, zip=44100
Employee [id=400, name=MARCO, salary=4000, address=Address [street=PASEO ALTO 456, city=MONTERREY, state=NL, zip=64000]]
Employee [id=401, name=Kevin Lara, salary=5000, address=null]
Employee [id=402, name=Kevin Lara, salary=5000, address=Address [street=Rancho Seco, city=Aragon, state=Edo Mex, zip=56300]]
kevinlara@mila:/media/kevinlara/LinuxStorage1/Documents/Diplomado_Java/Java_Diplomat/Modulo11/Practicas/5/m1104EmbeddedOb$
```

Sharing embedded objects

```
Internal Exception: java.sql.SQLSyntaxErrorException: (conn 46) Unknown column 'PROVINCIA' in 'field list'
Error Code: 1054
Call: INSERT INTO COMPANY (NAME, CITY, PROVINCIA, STREET, ZIP_CODE) VALUES (?, ?, ?, ?, ?)
        bin                      und]
Query: Inse    Follow link (ctrl + click)    [id=null, name=iTacoz, address=Address [street=Circuito universitario, city=CU, state=CDMX, zip=4343]])
        at org.eclipse.persistence.internal.jpa.transaction.EntityTransactionImpl.commit(EntityTransactionImpl.java:162)
        at unam.dgtic.diplomado.m1100base.modelo.CompanyService.createCompany(CompanyService.java:41)
        at unam.dgtic.diplomado.m1100base.Prueba26SharingEmbeddedOb2.main(Prueba26SharingEmbeddedOb2.java:23)
Caused by: Exception [EclipseLink-4002] (Eclipse Persistence Services - 4.0.0.v202210051929): org.eclipse.persistence.exceptions.DatabaseException
Internal Exception: java.sql.SQLSyntaxErrorException: (conn=46) Unknown column 'PROVINCIA' in 'field list'
```