

1..*

```
class Coach {
    int coachNo;
    String coachName;
    int age;
    String gender;
    String mobileNo;
    String emailAddress;
    int experience;
    Set<Player> players;
    // accessors
}
```

1..1

```
class Player {
    int playerNo;
    String playerName;
    int age;
    String gender;
    String mobileNo;
    String emailAddress;
    float weight;
    float height;
    String sportType;
    // accessors
}
```

coach

```
coach_no (pk)
coach_nm
age
gender
mobile_no
email_address
experience
```

player

```
player_no (pk)
player_nm
age
gender
mobile_no
email_address
weight
height
sport_type
coach_no (fk) (nullable)
```

How to persist and retrieve the data for the above entity classes along with their association relationship objects?

1. PERSIST/SAVE

1.1 Player

directly store the player entity object data into player table, since there are no associated objects exists in that entity. since there is no associate between Player to Coach in Player entity class we cannot determine the coach for the player, so while persisting the Coach entity object we need to store the foreign key column “coach_no” as NULL.

1.2 Coach

In the Coach entity class store all the primitive attributes of the entity object into corresponding columns of the coach table. But there is an Set<> type attribute holding the associated objects “indicating all these players are trained under this coach”. To represent the association in table model we need to update for each Player in the Set<> the coach_no (fk) with coach_no value of the current record/entity object we persisted indicating all these players are trained by this Coach.

persist: Take the pk of my table and store it as foreign key in another table

2. FETCH/GET

2.1 Player

directly query the data from Player table based on player_no (pk) and populate into entity object and return

2.2 Coach

Coach coach = session.get(Coach.class, 2);

directly query the data for Coach entity object from coach table, but for fetching the associate object Set<Player> players, we need to query the data from Player table based on fk column coach_no as my primary_key column value, so that we can get all the players playing under that coach

fetch: Take the pk of my table and query against the other table foreign key to fetch the associated object

From the above we can understand we need to tell the hibernate/jpa 2 things about associated objects

- 1. To fetch or persist the data of the associated objects we need to tell what type of relationship in which the underlying tables/classes are in with (one-to-one, one-to-many, many-to-many)
- 2. what is the relationship column for their association in database table.

Based on this persist/fetch operations are taken care by hibernate/jpa automatically.

```
Coach.hbm.xml
<hibernate-mapping package="com.otm.entities">
  <class name="Coach" table="coach">
    <id name="coachNo" column="coach_no">
      <generator class="increment"/>
    </id>
    <property name="coachName" column="coach_nm"/>
    <property name="age"/>
    <property name="gender"/>
    <property name="experience"/>
    <property name="mobileNo" column="mobile_no"/>
    <property name="emailAddress" column="email_address"/>
    <set name="players">
      <key column="coach_no"/>
      <one-to-many class="Player"/>
    </set>
  </class>
</hibernate-mapping>
```