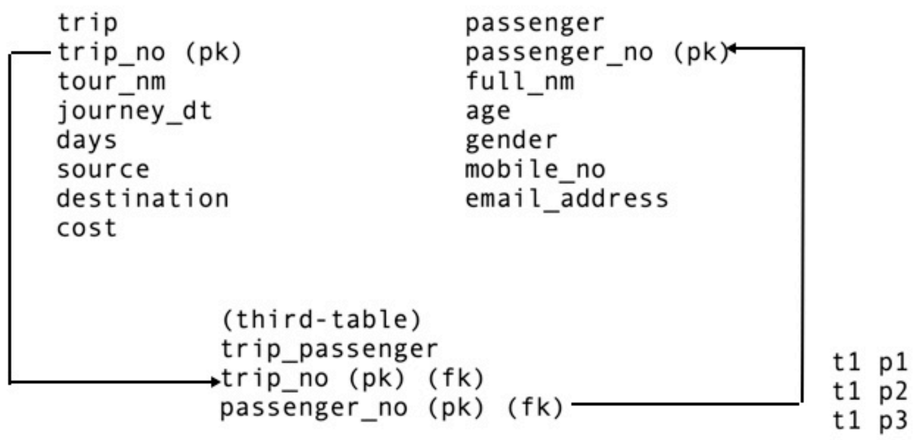
Many-To-Many Association Mapping

```
                                                    1..*
class Trip {
  int tripNo;
  String tourName;
  LocalDate journeyDate;
  int days;
  String source;
  String destination;
  double cost;
  @ManyToMany
  @JoinTable(name="trip_passenger",
    joinColumns={@JoinColumn(name="trip_no")},
    inverseJoinColumns={@JoinColumn(name="passenger_no")})
  Set<Passenger> passengers;
}
```

```
*..1
class Passenger {
  int passengerNo;
  String fullname;
  int age;
  String gender;
  String mobileNo;
  String emailAddress;
  Set<Trip> trips;
}
```

T1
{P1, P2, P3}



How to perform persistence operations for these entity classes onto the underlying database tables based on the table relationships we mapped?
1. How to store the entity objects?

1.1 How to store Passenger entity object?
since there is no association we can directly store the Passenger entity object into the passenger table directly

1.2 How to store Trip entity object?

```
Passenger passenger1 = entityManager.find(Passenger.class, 1);
Passenger passenger2 = entityManager.find(Passenger.class, 2);
Passenger passenger3 = entityManager.find(Passenger.class, 3);

Set<Passenger> passenger = new HashSet<>();
passenger.add(passenger1, passenger2, passenger3);

Trip trip = new Trip();
// populate the data
trip.setPassengers(passengers); = #association is representing all these passengers are travelling aspart of this trip
entityManager.persist(trip);
```

so while persisting the trip, i need to persist the association relation between those passengers and the trip into the table relationship. To persist the association we store pk as fk in another table

Store the trip entity object and its attributes into trip table. but it has associated object Set<Passenger> passengers, how to persist this association into relational model?
since it is an many-to-many association, both the entities pks should be stored as pks/fks in the third table representing that association.

In-Short:
To persist the association, take my entity pk and store it in my fk, take their pk of their entity and store in their fk of the third-table.

#2. How to query the objects of data from the database?

2.1 how to fetch Passenger entity object?
directly from the passenger table, as there is no association

2.2 how to fetch trip entity object?
take my pk join with my fk in the third-table, that gives me other table fks, then join with pks of the other table.

take trip_no and query the record from third table, that gives all the passenger_nos travelling aspart of the trip. take these passenger_nos and join with passenger table pk that returns records of passengers travelling aspart of the trip, the associate them into the passenger collection of trip.