

direct one-to-one

when do we go for direct one-to-one relationship

If the record in my table is in relationship with only one record in another table, along with this

1. the child record doesnt have an separate identity
2. the child cannot exists unless there is an parent record

then the tables are said to be direct one-to-one relationship.

To represent/establish the direct one-to-one relationship, the pk of our table is declared as pk and fk in child table.

1..1

```
class AutoLoan {
    @GeneratedValue(strategy=IDENTITY)
    int loanNo;
    String applicantName;
    int tenure;
    double principleAmount;
    double interestRate;
    LoanDisbursement loanDisbursement;
}
```

1..1

```
class LoanDisbursement {
    int loanNo;
    LocalDate disbursementDate;
    String chequeNo;
    LocalDate chequeDate;
    String paidTo;
    double disbursementAmount;
    AutoLoan autoLoan;
}
```

auto_loan	loan_disbursement
loan_no (pk)	loan_no (pk) (fk)
applicant_nm	disbursement_dt
tenure	cheque_no
principle_amt	paid_to
interest_rate	disbursement_amt

How to perform the persistence operations?

1. How to store the AutoLoan entity object?

directly store the AutoLoan entity object attribtues into the corresponding columns of the auto\_loan table

2. How to store LoanDisbursement entity object?

store the LoanDisbursement entity object data into loan\_disbursement table, while storing the data since the pk (loan\_no) of the loan\_disbursement table itself is the foriegn key, the value for this should be derived from underlying associated autoLoan entity object.

In-short: copy the associated autoLoan entity object pk value as an pk of the loan\_disbursement

3. How to fetch the AutoLoan entity object?

fetch it directly from auto\_loan table

4. How to fetch the LoanDisbursement entity object?

Fetch the LoanDisbursement entity object data from the loan\_disbursement table, but the LoanDisbursement entity object has an associated object autoLoan which is in one-to-one relationship with our entity.

So inorder to fetch the autoLoan info for the loanDisbursement, join both the tables pks

in-short: both table pks should be joined to fetch the associated object

```
session.get(LoanDisbursement.class, 10);
select * from loan_disbursement ld inner join auto_loan al on ld.loan_no = al.loan_no where ld.loan_no = 10;
```

Summary:

1. while storing, copy the pk of the associate object as pk value of my table
2. while querying, join both the tables pks

@MapsId = annotation indicates the id for the entity object is mapped from the association

How to write the mapping information within the entities?

```
@Entity
@Table(name="auto_loan")
class AutoLoan {
    @Id
    @Column(name="loan_no")
    @GeneratedValue(strategy=GenerationType.IDENTITY)
    int loanNo;
    @Column(name="applicant_nm")
    String applicantName;
    int tenure;
    @Column(name="principle_amt")
    double principleAmount;
    @Column(name="interest_rate")
    double interestRate;

    // accessors
}
```

```
@Entity
@Table(name="loan_disbursement")
class LoanDisbursement {
    @Id
    @Column(name="loan_no")
    int loanNo;

    @Column(name="disbursement_dt")
    LocalDate disbursementDate;
    @Column(name="cheque_no")
    String chequeNo;
    @Column(name="cheque_dt")
    LocalDate chequeDate;
    @Column(name="paid_to")
    String paidTo;
    @Column(name="disbursement_amt")
    double disbursementAmount;

    @MapsId
    @OneToOne
    AutoLoan autoLoan;
}
```

or  
copy the id of the associated object as an id of the entity