Super Type and Sub Type:

SQL object inheritance is based on a family tree of object types that forms a type hierarchy. The type hierarchy consists of a parent object type, called a supertype, and one or more levels of child object types, called subtypes, which are derived from the parent.Inheritance is the mechanism that connects subtypes in a hierarchy to their supertypes. Subtypes automatically inherit the attributes and methods of their parent type. Also, the inheritance link remains alive. Subtypes automatically acquire any changes made to these attributes or methods in the parent: any attributes or methods updated in a supertype are updated in subtypes as well. Subtypes can have new attributes and new methods that its parent supertype does not have

FINAL and NOT FINAL Types and Methods for Inheritance:

Object types can be inheritable and methods can be overridden if they are so defined.

For an object type or method to be inheritable, the definition must specify that it is inheritable.

For both types and methods, the keywords FINAL or NOT FINAL are used are used to determine inheritability.

Object type: For an object type to be inheritable, thus allowing subtypes to be derived from it, the object definition must specify this. NOT FINAL means subtypes can be derived. FINAL, (default) means that no subtypes can be derived from it.

Method: The definition must indicate whether or not it can be overridden. NOT FINAL (default) means the method can be overridden. FINAL means that subtypes cannot override it by providing their own implementation.

SQL Query:

```
create type theater_t as object (
        tno number(4),
   tname varchar2(10),
   address varchar2(20),
   phone number(10)
);
create table Theaters of theater_t;
insert into Theaters values(1, 'CityPride' , 'KCNagar', 223344);
insert into Theaters values(2, 'IMAX' , 'MCNagar', 223344);
create table NowShowing(
   movie_id number(4),
   theater ref theater_t scope is Theaters,
   mstart date,
   mend date
);
insert into NowShowing values(
   1,(select ref(t) from Theaters t where t.tno = 1),
   '12-May-2010','18-May-2010'
);
insert into NowShowing values(
   2,(select ref(t) from Theaters t where t.tno = 2),
   '13-May-2010','15-May-2010'
);
insert into NowShowing values(
   3,(select ref(t) from Theaters t where t.tno = 1),
   '12-May-2010','18-May-2010'
);
insert into NowShowing values(
```

```
    4,(select ref(t) from Theaters t where t.tno = 2),
    '2-May-2010','8-May-2010'
);
insert into NowShowing values(
    5,(select ref(t) from Theaters t where t.tno = 1),
    '12-May-2010','28-May-2010'
);
select n.movie_id, n.theater.tname from NowShowing n;
```

MOVIE_ID	THEATER.TNAME
1	CityPride
3	CityPride
5	CityPride
2	IMAX
4	IMAX