Relationship in java
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   As a part of application developent, we have to use few entities(class) as per
   our application requirement.

   By promoting relationship we can achieve
     a. Optimisation over our code(less lines of code)
     b. Code Reusability
     c. Execution time
     d. sharability.

How many types of relationship exists in Java?
   we have 2 types of relationship
   a. IS-A(achieved through extends keyword)
     b. HAS-A

What is the difference b/w IS-A relationship and HAS-A relationship?
 IS-A relationship
  => It is able to define inheritance b/w 2 entity classes
     => It also promotes code reusability in java application.

   HAS-A relationship
    => It will define associations b/w 2 entities in java application.
    => Through association b/w entites it will imporve communication b/w 2 entites and data
     navigation b/w 2 entites.

Associations in Java
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 In Java we have 4 types of association
   a. 1 to 1 association
   b. 1 to many association
   c. Many to One association
   d. Many to Many association.

To achieve association b/w 2 entities we have to declare either single reference or array of
reference variable of an entity in another entity class.

eg:
class Address{
 Integer pinNo;
 Integer doorNo;
 String state;
 String city;
 String country;
}
class Student{
 String name;
 Integer age;
 Integer sid;

 //HAS-A variable
 Address address;//1 to 1 Association

 //HAS-A variable

```
 Address[] address;//1 to Many Association
}
```

Key points of Associations
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  DependencyInjection
   a. The process of Injecting the dependent object into target object is called
   "Dependancy Injection".

 Target Object   => The object which is been given to the developers for usage is called
      "Target Object".

 Dependent Object => The object which is an helper object for the target object is called
      "Dependant Object".

eg#1
class Address{}//Dependant Object
class Student{}//Target Object

How to perform Dependancy Injection in Java?
  It can be done in 2 ways
 a. Constructor Injection.
    a. We can inject primitive value to object.
    b. We can inject one more object into another object.

 b. Setter Injection.
     a. We can inject primitive value to object.
    b. We can inject one more object into another object.

One-One Association
====================
 It is a relationship b/w 2 entities, where one entity of one class is mapped to one more entity
  of another class.

eg:
  Employee(target object)
  |
  |HAS-A
  |
  Account(dependent object)

 refer: ONE_ONE_EXample.png

 refer: One-One-Association(Constructor Injection)
    One-One-Association(Setter Injection)

When to use Constructor Injection and when to use Setter Injection?
 Ans. It totally depends on the project requirement

  Constructor => If the dependant object is ready at the time of target object creation
      then perform "Constructor injection".

  Setter   => If the dependant object is not ready at the time of target object creation
      then perform "Setter injection".

One to Many Assocation
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   It is a relationship b/w 2 entities, where one entity of one class is mapped to multiple
   entities of another class.
eg:
   Department(1) //Target Object
   |
  |HAS-A
   |
   Employee(Many)//Dependent Object

  refer: ONE_ONE_EXample.png
  refer: One-Many-Association(Constructor Injection)