

Q1) Explain the difference between IS-A and Has-A relationship with the help of an example and explain about access modifiers and their accessibility?

Ans: **IS-A relationship** is a concept in oops that's totally depends on inheritance. Whenever you see a extends or implements keyword in a class declaration, then this class is said to have IS-A relation .

Example: 

```
public class Car {
    String manufacturar;

}
// Sedan class=====
class Sedan extends Car{
    int seatNumbesr =20;
}
```

In above example we can say Sedan is a type of car.

**Has-A Relationship:** When an object is used as an instance variable of other class Then it is said to have Has-A relationship b/w the objects.

Example:

```
public class Person {
    String name ;

    String gender;

    Address ad;
}

//Address class=====

class Address{
    String city ;

    String state ;
    String pinCode ;
}
```

In this example, Address is been used as instance of Person class.

**Access Modifiers :** Access Modifiers defines the accessibility of the class members or class itself.

There are following type of access modifiers supported by java:

**Public:** The member which are defined by public keyword can be access by every class in any package.

**Protected:** The member which are defined by public keyword can be access by every class in same package.

**Private :** The member which are defined by private keyword can be access within class by class methods but not outside the class.

**Default :** The member which are defined by public keyword can be access by every class in any package.