1.Why multiple inheritance is not supported in java

Ans: - To reduce the complexity and simplify the language, multiple inheritance is not supported in java.

Examples- Consider a scenario where A, B, and C are three classes. The C class inherits A and B classes. If A and B classes have the same method and you call it from child class object, there will be ambiguity to call the method of A or B class.

Since compile-time errors are better than runtime errors, Java renders compile-time error if you inherit 2 classes. So whether you have same method or different, there will be compile time error.

**class** A{

**void** msg(){System.out.println("Hello");}

}

**class** B{

**void** msg(){System.out.println("Welcome");}

}

**class** C **extends** A,B{//suppose if it were

**public** **static** **void** main(String args[]){

   C obj=**new** C();

   obj.msg();//Now which msg() method would be invoked?

}

}

2.Why use inheritance in java

* Ans:- For [Method Overriding](https://www.javatpoint.com/method-overriding-in-java) (so [runtime polymorphism](https://www.javatpoint.com/runtime-polymorphism-in-java) can be achieved).
* For Code Reusability.

**Reusability**: - As the name specifies, reusability is a mechanism which facilitates you to reuse the fields and methods of the existing class when you create a new class. You can use the same fields and methods already defined in the previous class.

Inheritance represents the **IS-A relationship** which is also known as a parent-child relationship.

## Aggregation

If a class have an entity reference, it is known as Aggregation. Aggregation represents HAS-A relationship.

Consider a situation, Employee object contains many information’s such as id, name, emailId etc. It contains one more object named address, which contains its own information’s such as city, state, country, zip code etc. as given below.

**class** Employee{

**int** id;

String name;

Address address;//Address is a class

...

}

Employee has an object of Address, address object contains its own informations such as city, state, country etc. In such case relationship is Employee HAS-A address.