Inheritance is a mechanism in which one object acquires all the properties and behaviour of a parent object.

Inheritance represents Is-a relationship which is also known as parent-child relationship.

Why use inheritance:-

For method overriding

For code reusability

Class child extends Parent{ // syntax for inheritance

}

1 Single Inheritance

When a class inherits another class

2 Multilevel Inheritance

When there is a chain of inheritance

3 Hierarchical Inheritance

When two or more single class inherits from a single class

Why there is not Multiple Inheritance through class in java?

This is because lets say class C inherits from Class A and class B.

Now A and B both have same method

And if we call method using objet of C, there will be ambiguity for the object to call which class’s method.

Therefore not allowed

AGGREGATION

If a class has an entity reference it is known as aggregation. It represents Has-A relationship

Class Employee{

Int id;

String name;

Address address;

…..

}

Code resuse is also best achieved by aggregation when there is no Is-a Relationship.

Inheritance should only be used if the relationship Is-a is maintained throughout the lifetime of objects involved else aggregation is the best choice.