Inheritance

- It is process of creating a new class by taking the properties of an existed class

- Advantages are
  - Reusability of the code
  - Code optimization
  - Memory optimization
  - Cast and time of the project will be reduced
  - Efficiency of the project will be increased

- A class which producing a new Class called "Superclass" or generalized class

- A class which is inherited is called "Subclass" or specialized class

- Specialized class may have rich set of properties than generalized class

- By creating an object of "superclass" we can access only "properties" of superclass, but not the subclass.

- By Creating an Object of "subclass" then we can access properties of both "super" and "subclass"

- It is always to culture to create an Object for sub class.

Types Of Inheritance:
➤ Single inheritance
  - Process of creating a sub class by taking the properties of a super class
➤ Multiple inheritance
  - Process of creating a sub class by taking the properties of more than one super class

➢ By the combinations of single and multiple , we have the following combinations
- o Multi-Level
- o Hierarchy Inheritance
- o Hybrid Inheritance
- o Multipath inheritance
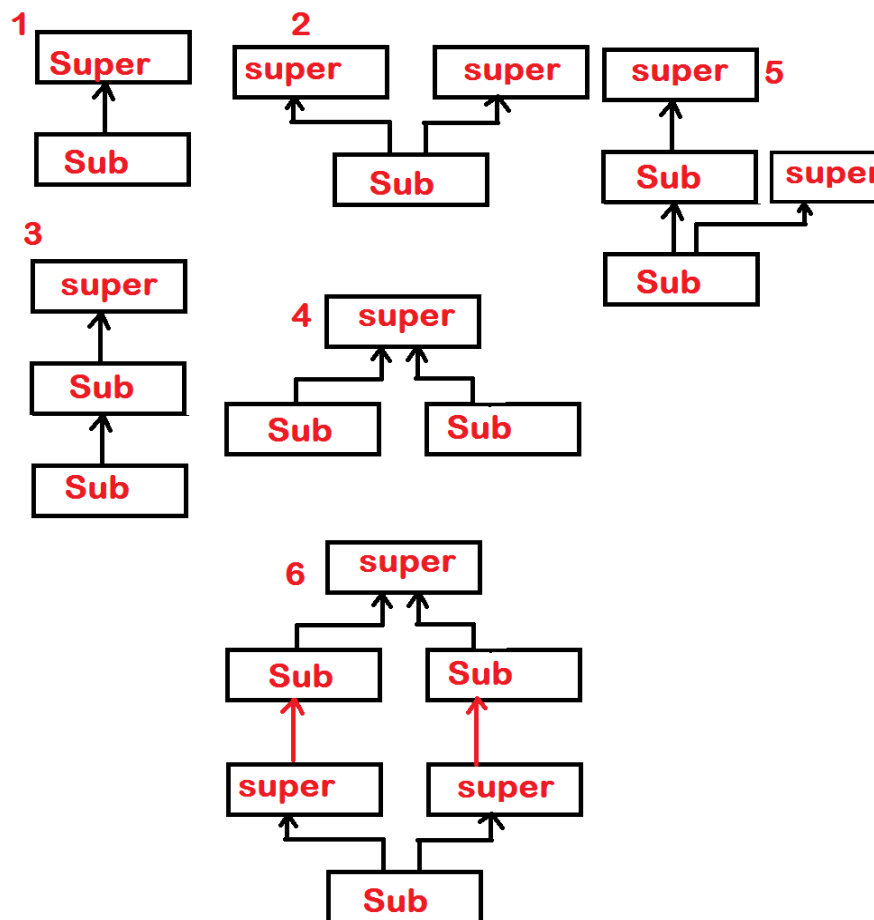
Note: In order to access the properties from one class to another the corresponding classes need to have some relation ship.In Java we have to two types of relation ships are Existed

➢ HAS-A Relation ship
➢ IS-A Relation Ship

Note: "Java doesn't support multiple and its related combinations using through classes but, it is possible by using through interfaces."