

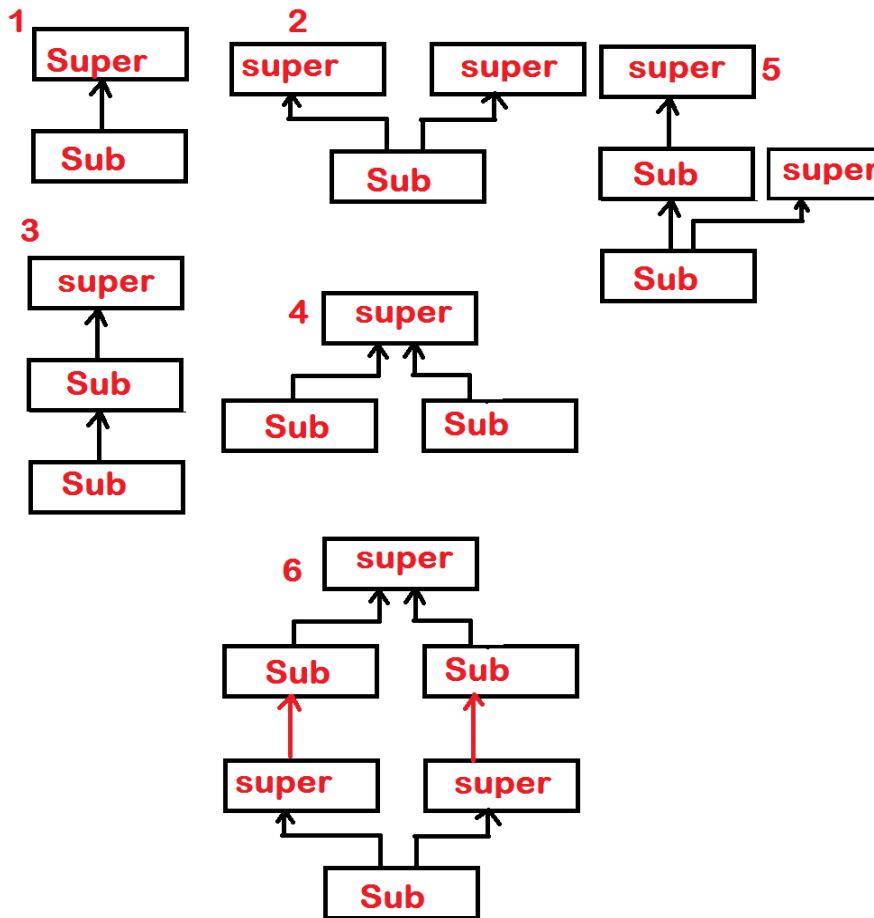
Inheritance

- 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
 - Multi-Level
 - Hierarchy Inheritance

- Hybrid Inheritance
- Multipath inheritance



Note: In order to access the properties from one class to another the corresponding classes need to have some relationship. In python we have two types of relationships are Existed

- HAS-A Relationship [composition]
- IS-A Relation Ship [inheritance]