Forms of inheritance:

1. Inheritance for Specialization:
• Child class is specialized form of Parent class
• Child class satisfies the specification of Parent in all relevant respects
• Child class inherits the properties of the Parent class and has its own additional features also
• Child class can override methods from the Parent in order to specialize the Child class in some way

2. Inheritance for Specification:
• The Parent class is just used to provide behavior or which function should be available but doesn't provide its implementation
• Parent class is abstract class and just provides specification for child class
• The derived class have the implementation of the function respective to their requirement

3. Inheritance for Construction:
• If the Parent class is used as a source for the behavior but the child has no is-a relationship to the parent, then the child is using inheritance for construction

4. Inheritance for Generalization:
• Subclass extends the behavior of Superclass to create more general kind of object but doesn't override any method with completely new features

5. Inheritance for Extension:
• Extension simply adds new methods in the Child to those of the Parent

6.Inheritance for Limitation:
• Inheritance for limitation is used when the behavior of subclass is smaller or more restrictive than the behavior of the Parent class

• The programmer can override the undesired methods inherited from Parent class so that they can limit the features
• The methods override existing methods and eliminate or limit their functionality

7. Inheritance for Variance:
• Used when two or more classes have similar implementations but do not seem to possess any hierarchical relationships between concepts represented by the classes
• e.g. code required to control a mouse and a tablet are identical
• In this case one of the two classes can be chosen as the parent by inheriting the common code and overriding the device specific code

8. Inheritance for Combination:
• The subclass represents a combination of features from two or more parent classes
• The ability of a class to inherit from two or more parent classes is known as multiple inheritance