:----------Inheritance Definition----------:

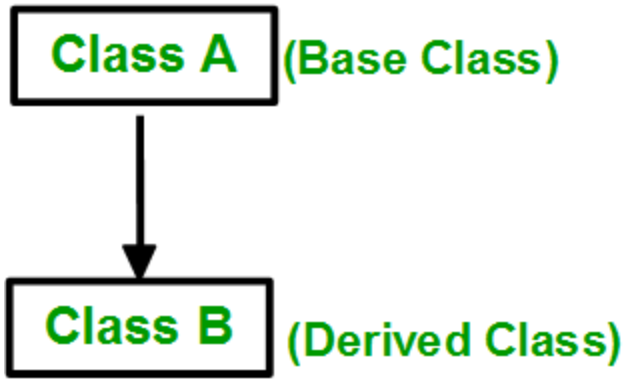
- Inheritance is a process in which derived class objects acquire all the properties and behaviour of its base class. Inheritance is a most important feature of object oriented programming.
- The class that inherits properties from another class is called derived class or child class.
- The class whose properties inherited by its one derived class is called a base class or parent class.
- We can achieve polymorphism using inheritance.

  Real Life example -: a car manufacturing company when designing a new model of car then they acquire all properties and functions of the old car and add new properties and functions in the new car.
  So the new car has all the functions and properties of an old car but old cars cannot have the properties and functions of a new car.

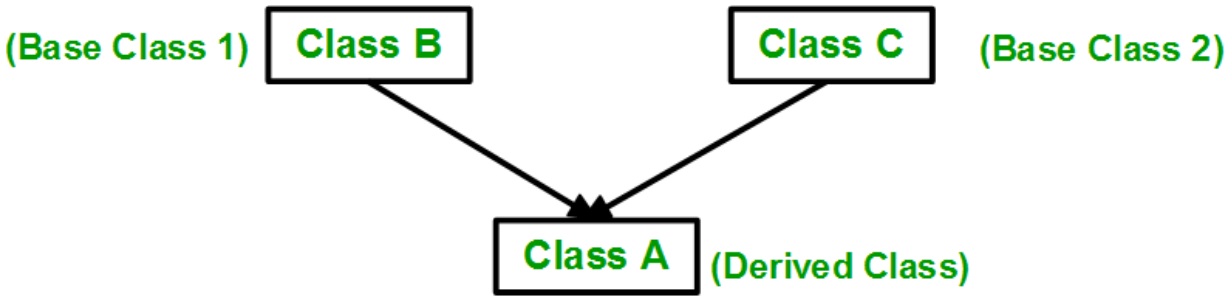
Types of inheritance -:

1. **Single inheritance**
2. **Multiple inheritance**
3. **Multilevel inheritance**
4. **Hierarchical inheritance**
5. **Hybrid inheritance**

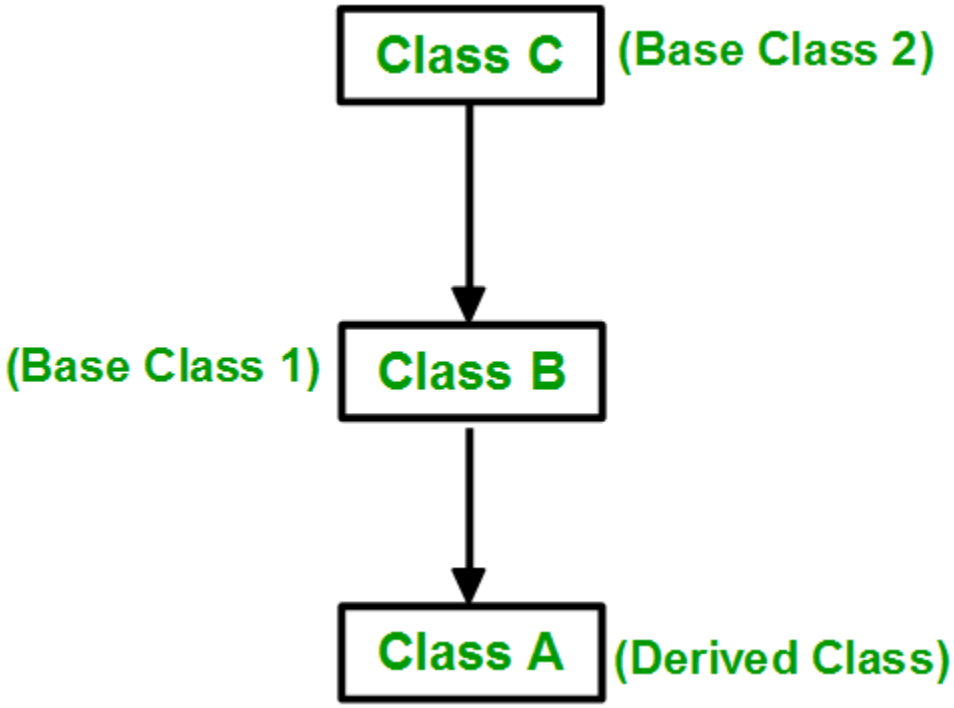
- **Single Inheritance -:** A class that inherits from only one class is called single inheritance. Example : one child class is inherited by one parent class.



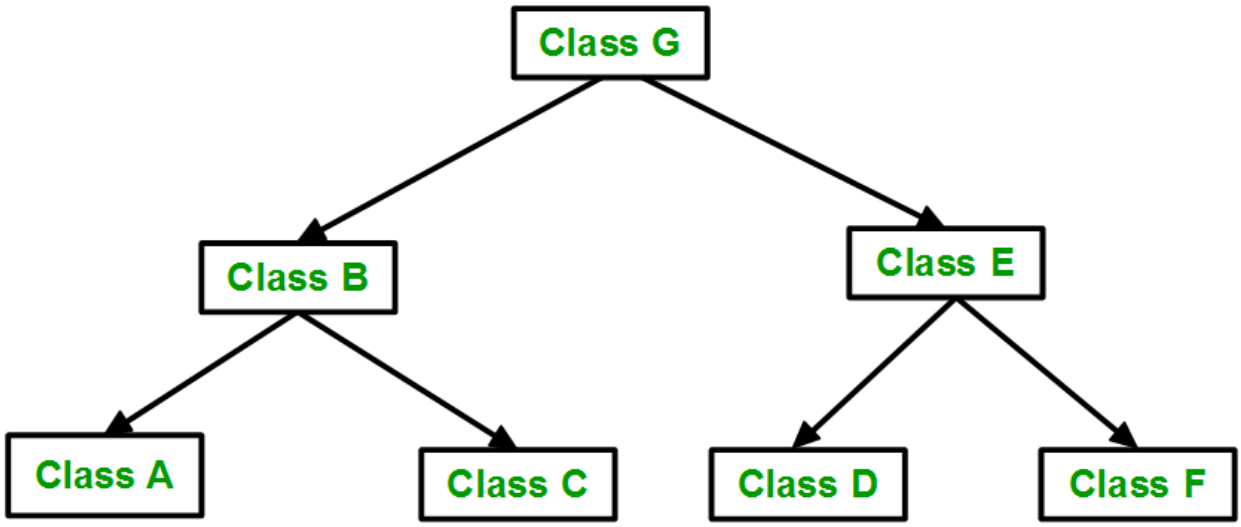
- **Multiple inheritance -:** A class can inherit from more than one base class class is called multiple inheritance. Example: one child class is inherited from more than one parent class.



- **Multilevel inheritance -:** In multilevel inheritance a derived class inherited by another drive class.



- **Hierarchical inheritance -:** In hierarchical inheritance more than one sub class is inherited from one base class.



- **Hybrid inheritance -:** Hybrid inheritance is implemented by combining more than one inheritance.