**Inheritance In C# Programming**

* **The similarity in physical features of a child to that of its parents is due to the child having inherited these features from its parents.**
* **Similarly, in C# inheritance allows you to create a class deriving the common attributes and methods of an existing class.**
* **Inheritance provides reusability by allowing us to extends an existing class.**
* **The reason behind OOP programming is to promote the reusability of code and to reduce complexity in code and it is possible by using inheritance.**

**Types of inheritance:**

* **Single**
* **Hierarchical**
* **Multilevel**
* **Multiple (using interface)**

**Single inheritance:**

**It is the type of inheritance in which there is one base class and one derived class.**

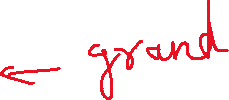
**Hierarchical inheritance:**

**-Single base class and multiple derived class.**

**-this type of inheritance is used when there is are requirement of one class feature that is needed in multiple classes.**



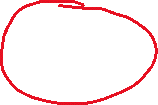
**Multi-Level inheritance:**



**Base Class**



**intermediate**



**class**



**Derived Class**



**When one class is derived from another derived class.**