:----------Polymorphism Definition----------:

- Simple meaning of polymorphism is haivng many forms.
- We can achieve polymorphism using inheritance.

Real Life example -: A person(man) can have different characteristics at the same time like: a father, a brother, a husband, an employee ,So the same person acts according to different situations.

Types of polymorphism -:

1. **Compile time polymorphism**
2. **Runtime polymorphism**

Compile time polymorphism -:

Compile time polymorphism can be achieved by **function overloading** and **operator overloading.**

1. **Function overloading -:** Functions with the same name but different parameters then these functions called as function overloading.
   Functions can be overloaded by change in number of arguments or change in type of arguments.
2. **Operator overloading -:** When we give the special meaning to operator then we can call that operator an overloaded operator.
   Like: we can change the meaning of '+' plus operator to concatenate for string merging.
   Note -: following operator can not be overloaded
   Scope Resolution Operator (::),
   Pointer-to-member Operator (.*),
   Member access or dot operator (.),
   Ternary or Conditional operator (?:),
   Sizeof operator (sizeof),
   Object type operator (typeid)

Runtime polymorphism -: Runtime polymorphism can achieve by using function overriding.

1. **Function overriding -:** Function overriding is redefinition of base class function in its derived class with same return-type and same parameters. It will make the compiler check the base class to see if there is virtual function with same signature then its work perfectly but if there will not virtual function then its occur error.