=> super keyword :

-> The super keyword is a reference variable which is used to refer immediate parent class object

-> Use of super keyword :-

1. super keyword can be used to refer the immediate parent class instance variable

```
class A
{
    int no=10;
}

class B extends A
{
    int no=20;
    void show(int no)
    {
        System.out.println(no);
        System.out.println(this.no);
        System.out.println(super.no);
    }
}

class SuperTest
{
    public static void main(String[] args)
    {
        B ob=new B();
        ob.show(30);
    }
}
```

2. super keyword can be used to invoke parent class method

```
class A
{
   void show1()
   {
      System.out.println("i m in class A");
   }
}
class B extends A
{
   void show2()
   {
      super.show1();
      System.out.println("im in class B");
   }
}

class SuperTest2
{
   public static void main(String[] args)
   {
      B ob=new B();
      ob.show2();
   }
}
```

==

```
class A
{
    void show()
    {
        System.out.println("i m in class A");
    }
}

class B extends A
{
    void show()
    {
        System.out.println("im in class B");
    }
    void m1()
    {
        //show() ;    // im in class B
        System.out.println("1");
        super.show();     //i m in class A
        System.out.println("2");
    }
}

class SuperTest3
{
    public static void main(String[] args)
    {
        B ob=new B();
        ob.m1();
    }
}
```

3. super keyword is used to invoke parent class constructor

```
class A
{
    A()
    {
        System.out.println("i am A class constructor");
    }
}
class B extends A
{
    B()
    {
        //super() ;  --> compiler provides it implicitly
        System.out.println("i am in B class constructor");
    }
}

class SuperTest4
{
    public static void main(String[] args)
    {
        B ob=new B();
    }
}
```

-> If we dont provide super() in constructor then compiler provides it implicitly
-> super() should always used to be the first statement in constructor but after jdk22+, this() and super() can be use after other statements also

Points to remember :-
-> We cannot use this() and super() together

```
class A
{
   A()
   {
      System.out.println("i am A class constructor");
   }
}

class B extends A
{
   B()
   {
      System.out.println("i am in B class constructor");
      //super();  error because call to super must be first statement in constructor
   }
}

class SuperTest5
{
   public static void main(String[] args)
   {
      B ob=new B();
   }
}
```

=> What is difference between this and this()

=> What is difference between super and super()

-> this, super used for variable and method, whereas this(), super() used for constructor call