



SYNTAX
TECHNOLOGIES

JAVA

Class 20

Agenda

Super Keyword

Super Keyword

super keyword in java is a reference variable which is used to refer immediate parent class object.

Usage of Java super Keyword:

- ***super*** can be used to refer immediate parent class instance variable.
- ***super*** can be used to invoke immediate parent class method.
- ***super()*** can be used to invoke immediate parent class constructor.

Super Keyword

super is used to refer immediate parent class instance variable.

We can use ***super*** keyword to access the data member or field of parent class if parent class and child class have members with same name.

Super Keyword

```
class Furniture{
    String color="Red";
}

class Chair extends Furniture{
    String color="black";
    void printColor(){
        System.out.println(color);//prints color of Chair class
        System.out.println(super.color);//prints color of Furniture class
    }
}

class MainClass{
    public static void main(String args[]){
        Chair d=new Chair();
        d.printColor();
    }
}
```

Super Keyword

super can be used to invoke parent class method

The ***super*** keyword also used to access the method of parent class when child class has overridden that method.

Super Keyword

```
class Furniture{
    void color(){
        System.out.println(" Furniture color...");
    }
}

class Chair extends Furniture{
    void color(){
        System.out.println(" Chair color...");
    }

    void height(){
        System.out.println(" 5 ft ...");
    }

    void work(){
        super.color();
        height();
    }
}

class MainClass{
    public static void main(String args[]){
        Chair obj=new Chair();
        obj.work();
    }
}
```

Super Keyword

super is used to invoke parent class constructor.

```
class Furniture{  
    Furniture(){  
        System.out.println("Furniture class Constructor");  
    }  
}
```

```
class Chair extends Furniture{  
    Chair(){  
        super();  
        System.out.println("Chair class Constructor");  
    }  
}
```

```
class MainClass{  
    public static void main(String args[]){  
        Chair d=new Chair();  
    }  
}
```


Task

1. Write program: `userClass` that has a constructor that initializes instance variable `name` and `mobile number`. Create a subclass `userInfo` that will have `user address` variable and it also being initialized through constructor call. Print users `name`, `mobile number` and `address` in `userDetails` method. Test your code.
2. Write program: `Shape` class has a constructor that takes the `radius` and has a subclass as `circle` class. In `circle` class create a method to calculate the area of circle. Test your code

super vs super()

SUPER	SUPER()
super is used to call super class variables and methods by the subclass object when they are overridden by subclass.	super() is used to call super class constructor from subclass constructor.

this vs super

this is used to refer **current-class** instance as well as static members

super is used to refer **super-class's** instance as well as static members.

NOTE: We can use this as well as super anywhere except static area.