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

Whenever you create the instance of subclass, an instance of parent class is created implicitly which is referred by super reference variable.

Usage of Java super Keyword

1. super can be used to refer immediate parent class instance variable.
2. super can be used to invoke immediate parent class method.
3. super() can be used to invoke immediate parent class constructor.

We can use super keyword to access the data member or field of parent class. It is used if parent class and child class have same fields.

**class** Animal{

String color="white";

}

**class** Dog **extends** Animal{

String color="black";

**void** printColor(){

System.out.println(color);//prints color of Dog class

System.out.println(**super**.color);//prints color of Animal class

}

}

**class** TestSuper1{

**public** **static** **void** main(String args[]){

Dog d=**new** Dog();

d.printColor();

}}

The super keyword can also be used to invoke parent class method. It should be used if subclass contains the same method as parent class. In other words, it is used if method is overridden.

**class** Animal{

**void** eat(){System.out.println("eating...");}

}

**class** Dog **extends** Animal{

**void** eat(){System.out.println("eating bread...");}

**void** bark(){System.out.println("barking...");}

**void** work(){

**super**.eat();

bark();

}

}

**class** TestSuper2{

**public** **static** **void** main(String args[]){

Dog d=**new** Dog();

d.work();

}}

The super keyword can also be used to invoke the parent class constructor. Let's see a simple example:

**class** Animal{

Animal(){System.out.println("animal is created");}

}

**class** Dog **extends** Animal{

Dog(){

**super**();

System.out.println("dog is created");

}

}

**class** TestSuper3{

**public** **static** **void** main(String args[]){

Dog d=**new** Dog();

}}

**Another example of super keyword where super() is provided by the compiler implicitly.**

**class** Animal{

Animal(){System.out.println("animal is created");}

}

**class** Dog **extends** Animal{

Dog(){

System.out.println("dog is created");

}

}

**class** TestSuper4{

**public** **static** **void** main(String args[]){

Dog d=**new** Dog();

}}

Super() Example

**class** Person{

**int** id;

String name;

Person(**int** id,String name){

**this**.id=id;

**this**.name=name;

}

}

**class** Emp **extends** Person{

**float** salary;

Emp(**int** id,String name,**float** salary){

**super**(id,name);//reusing parent constructor

**this**.salary=salary;

}

**void** display(){System.out.println(id+" "+name+" "+salary);}

}

**class** TestSuper5{

**public** **static** **void** main(String[] args){

Emp e1=**new** Emp(1,"ankit",45000f);

e1.display();

}}