|  |  |
| --- | --- |
| What is this keyword in java? | 1. The this keyword is a reference variable that refers to the current object. 2. It can be used to refer to current class properties such as instance methods, variable, constructors, etc. 3. It can also be passed as an argument into the methods or constructors. 4. It can also be returned from the method as the current class instance. |
| What are the main uses of this keyword? | 1. this can be used to refer to the current class instance variable. 2. this can be used to invoke current class method (implicitly) 3. this() can be used to invoke the current class constructor. 4. this can be passed as an argument in the method call. 5. this can be passed as an argument in the constructor call. 6. this can be used to return the current class instance from the method. |
| Can we assign the reference to this variable? | 1. No, this cannot be assigned to any value because it always points to the current class object and this is the final reference in Java. 2. However, if we try to do so, the compiler error will be shown. |
| Can this keyword be used to refer static members? | Yes, It is possible to use this keyword to refer static members because this is just a reference variable which refers to the current class object |
| What are the advantages of passing this into a method instead of the current class object itself? | 1. this is a final variable. Therefore, this cannot be assigned to any new value whereas the current class object might not be **final** and can be changed. 2. this can be used in the synchronized block. |
|  |  |
| What is super in java? | 1. The **super** keyword in Java is a reference variable that is used to refer to the immediate parent class object. 2. Whenever you create the instance of the subclass, an instance of the parent class is created implicitly which is referred by super reference variable. 3. The super() is called in the class constructor implicitly by the compiler if there is no super or this. 4. **Super() or this() should be first line in the constructor** |
| O/P:  animal is created  dog is created |  |
| What are the main uses of the super keyword? | 1. super can be used to refer to the immediate parent class instance variable. 2. super can be used to invoke the immediate parent class method. 3. super() can be used to invoke immediate parent class constructor. |
| What are the differences between **this** and **super** keyword? | 1. The super keyword always points to the **parent class contexts** whereas this keyword always points to the **current class context.** 2. **The super keyword is primarily used for initializing the base class variables within the derived class constructor whereas this keyword primarily used to differentiate between local and instance variables when passed in the class constructor.** 3. The **super and this must be the first statement** inside constructor otherwise the compiler will throw an error. |
| Can you use this() and super() both in a constructor? | No, because this() and super() must be the first statement in the class constructor.    O/P: Test.java:5: error: call to this must be first statement in constructor |
| Using this we can call constructor.. |  |