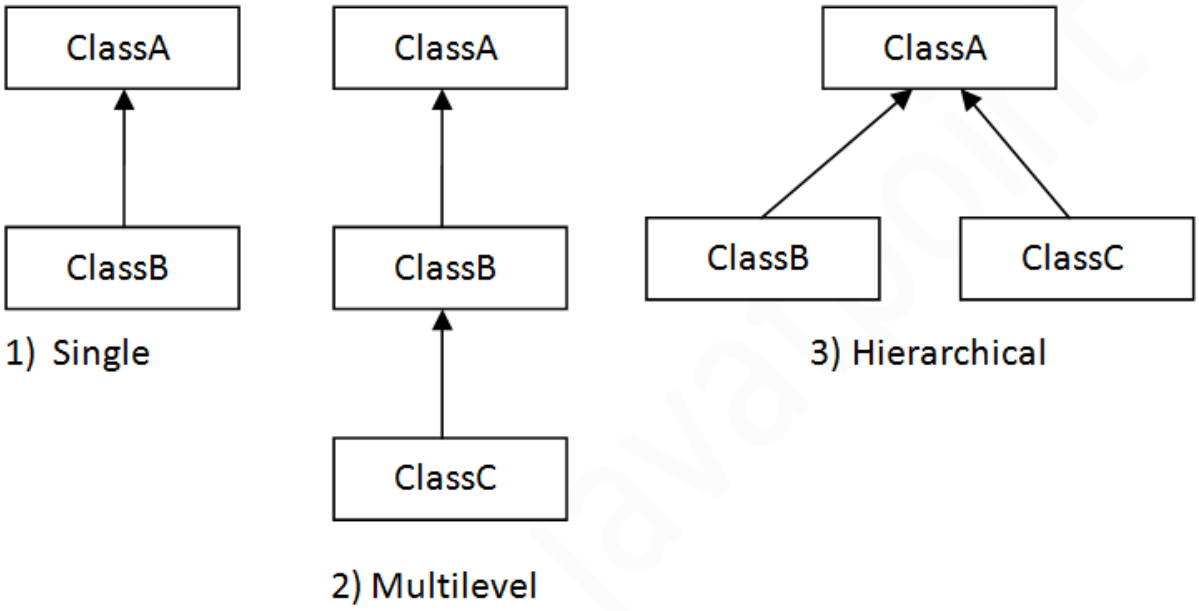
There the five types of inheritance as below

1. Single inheritance
2. Multiple inheritance
3. Multilevel inheritance
4. Hybrid inheritance
5. Hierarchical inheritance




1. Simple or Single inheritance
   In this only one super class and only one sub class called as single.

```
package com.single.inheritance;

public class A {

     void m1() {
          System.out.println("super class- m1 () method");
     }
}

package com.single.inheritance;
```

```
public class B extends A {

	void m2() {
		System.out.println("sub class - m2() method");
	}

}
```

```
package com.single.inheritance;

public class TestMain {

	public static void main(String[] args) {

		B b = new B();
		b.m1();
		b.m2();
	}
}
```

2. Multilevel inheritance

   It has only one base class and multiple derived class called as multilevel. Or it refers to the concept of one class extending (Or inherits) more than one base class.

```
package com.multilevel.inheritance;

public class A {

	void m1() {
		System.out.println("Class A- m1 () method");
	}
}
```

```
package com.multilevel.inheritance;

public class B extends A{
```

```
    void m2() {
        System.out.println("Class B- m2 method");
    }
}
```

```
package com.multilevel.inheritance;

public class C extends B {

    void m3() {
        System.out.println("Class c- m3 () method");
    }

    public static void main(String[] args) {

        C c= new C();
        c.m1();
        c.m2();
        c.m3();
    }
}
```

3. Multiple inheritance
   One class has many super classes called as multiple inheritance.

   Why multiple inheritance not supported in java in case of classes?

   Class base has test () method and class derived has also test () method. Class test extends Base, Derived, which test method It will called, so it create the ambiguity so that's why multiple inheritance does not supports in java.

   Draw diagram here.

```
package com.multiple.inheritance;

public class A {

    void m1() {
```

```
    }
}
```

```
package com.multiple.inheritance;

public class B {

    void m1() {

    }
}
```

```
package com.multiple.inheritance;

 class C extends A,B  {

    public static void main(String[] args) {

        C c= new C();
        c.m1();
    }
}
```

Note- it will get the compile time error.

4. Hierarchical inheritance
   One class is inherited by many sub classes called as.

```
package com.hierachical.inheritance;

public class A {

    void m1() {
        System.out.println("Class A- m1 () method");
    }
}
```

```java
package com.hierachical.inheritance;

public class B extends A {

	void m2() {
		System.out.println("Class B- m2() method");
	}
}
```

```java
package com.hierachical.inheritance;

public class C extends A{

	void m3() {
		System.out.println("Class c m3 method");
	}
}
```

```java
package com.hierachical.inheritance;

public class D {

	public static void main(String[] args) {

		B b = new B();
		C c = new C();

		b.m1();
		b.m2();
		c.m3();
	}
}
```

5. Hybrid inheritance

   It is the combination of single and multiple inheritance. So it is not allowed in java.