

# \* Interface and Abstract classes:-

Abstract Class	Interface
<ul style="list-style-type: none"> <li>Abstract class can have <u>abstract</u> and <u>non-abstract</u> methods.</li> </ul>	<p>Interface <sup>have</sup> can only abstract methods.</p>
<ul style="list-style-type: none"> <li>Abstract class doesn't support multiple inheritance</li> </ul>	<p>Interface supports multiple inheritance.</p>
<ul style="list-style-type: none"> <li>Abstract class can provide the implementation of interface.</li> </ul>	<p>Interface can't provide the implementation of interface.</p>
<ul style="list-style-type: none"> <li>The abstract keyword is used to declare abstract class.</li> </ul>	<p>The interface keyword is used to declare interface.</p>
<ul style="list-style-type: none"> <li>Java abstract class can have class members like <u>private</u>, <u>protected</u> etc.</li> </ul>	<p>Members of Java interface are <u>public</u> by default.</p>
<ul style="list-style-type: none"> <li>An abstract class can <del>have</del> be extended using keyword 'extends'</li> </ul>	<p>An interface can be implemented using keyword</p>

Example:-

```
public abstract class Shape
{
    abstract void draw();
}
```

Example:-

```
public interface draw
{
    void shape();
}
```

# Example of abstract class and interface in JAVA:-

interface A

{

void a();

void b();

void c();

}

abstract class B implements A

{

public void c() {

System.out.println("I am c");

}

class M extends B {

public void a() {

{

System.out.println("I am a");

}

public void b() {

{

System.out.println("I am b");

}

}



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```
class Main
```

```
{
```

```
public static void main (String args[])
```

```
{
```

```
    A a = new M();
```

```
    a.a();
```

```
    a.b();
```

```
    a.c();
```

```
}
```

```
}
```

Output:-

I am a

I am b

I am c

