Java Sleeping Thread

To sleep a thread for a specified time, Java provides sleep method which is defined in Thread class. The sleep method is an overloaded method which are given below. It throws interrupted exception so make sure to provide proper handler.

It always pause the current thread execution. Any other thread can interrupt the current thread in sleep, in that case InterruptedException is thrown.

Syntax

```
sleep(long millis)throws InterruptedException
sleep(long millis, int nanos)throws InterruptedException
```

Example : Sleeping a thread

In this example, we are sleeping threads by using sleep method. Each thread will sleep for 1500 milliseconds and then resume its execution. See the below example.

```
public class MyThread extends Thread
{
        MyThread(String str){
            super(str);
        }

        public void run()
        {
                System.out.println(Thread.currentThread().getName()+" Started");
                try{
                    MyThread.sleep(1500);
                    }catch(InterruptedException ie){
                        System.out.println(ie);
                }
                System.out.println(Thread.currentThread().getName()+" Finished");
        }
        public static void main(String[] args)
        {
```

OUTPUT:

```
first thread Started
second thread Started
first thread Finished
second thread Finished
```

Example

```
public class MyThread extends Thread
{
        MyThread(String str){
            super(str);
        }

        public void run()
        {
                System.out.println(Thread.currentThread().getName()+" Started");
                try{
                    MyThread.sleep(1500);
                    System.out.println(Thread.currentThread().getName()+" Sleeping..");
                    }catch(InterruptedException ie){
                        System.out.println(ie);
                }
                System.out.println(Thread.currentThread().getName()+" Finished");
        }
        public static void main(String[] args)
```

OUTPUT:

```
first thread state: NEW
first thread state: RUNNABLE
second thread state: NEW
first thread Started
second thread state: RUNNABLE
second thread Started
first thread Sleeping..
second thread Sleeping..
second thread Finished
first thread Finished
```

`Thread.sleep()` interacts with the thread scheduler to put the current thread in wait state for specified period of time. Once the wait time is over, thread state is changed to runnable state and wait for the CPU for further execution. So the actual time that current thread sleep depends on the thread scheduler that is part of operating system.

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