

## 2. Write a program in Java to demonstrate sleep() and wait()

//Using Sleep()

```
package AssistedPracticeProject;

public class SleepDemo {

    public static void main(String[] args) {

        System.out.println( "sleep() method:");
        for(int i=1;i<=4;i++) {
            try {
                System.out.println("Thread sleeping for "+ i
+"seconds(s) ...");
                Thread.sleep(i*500);
            }
            catch (InterruptedException e) {
                e.printStackTrace();
            }
        }
    }
}
```

Output:

The screenshot shows an IDE window with a console tab. The console output is as follows:

```
<terminated> SleepDemo [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (29-Nov-2023, 7:39:04 am - 7:39:09 am) [pid: 720]
sleep() method:
Thread sleeping for 1seconds(s)...
Thread sleeping for 2seconds(s)...
Thread sleeping for 3seconds(s)...
Thread sleeping for 4seconds(s)...
```

//Using wait()

```
package AssistedPracticeProject;

public class WaitDemo {
    public static void main(String[] args) {

        System.out.println( "Wait() method:");
        Object lock=new Object();
        Thread t1=new Thread(new Runnable() {
            public void run() {
                synchronized (lock) {
                    System.out.println("Thread 1 waiting...");
                    try {
                        lock.wait();
                    } catch (InterruptedException e) {
                        e.printStackTrace();
                    }
                }
            }
        });
    }
}
```

```

        System.out.println("Thread 1 resumed...");
    }
}
});

Thread t2=new Thread(new Runnable() {
    public void run() {
        synchronized (lock) {
            System.out.println("Thread 2 notifying...");
            lock.notify();
        }
    }
});
t1.start();
t2.start();
}
}

```

Output:

