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TUTORIAL 6 :
THE CODE:

Task1.java

```java
public class Task1 {

    public static void main(String[] args) {
        Thread t1 = new Thread(new MultiplicationTask( number: 1));
        Thread t2 = new Thread(new MultiplicationTask( number: 2));
        Thread t3 = new Thread(new MultiplicationTask( number: 3));

        t1.start();
        t2.start();
        t3.start();
    }

    static class MultiplicationTask implements Runnable {
        private final int number;

        public MultiplicationTask(int number) { this.number = number; }

        @Override
        public void run() {
            for (int i = 1; i <= 3; i++) { // limit to 3 like in the image
                System.out.println(Thread.currentThread().getName() + ": " + number + " * " + i + " = " + (number * i));
                try {
                    Thread.sleep( millis: 100); // Delay for more readable interleaved output
                } catch (InterruptedException e) {
                    e.printStackTrace();
                }
            }
        }
    }
}
```

THE OUTPUT:

```
"C:\Program Files\Java\jdk-16.0.1\bin\jav
Thread-2: 3 * 1 = 3
Thread-0: 1 * 1 = 1
Thread-1: 2 * 1 = 2
Thread-0: 1 * 2 = 2
Thread-2: 3 * 2 = 6
Thread-1: 2 * 2 = 4
Thread-2: 3 * 3 = 9
Thread-0: 1 * 3 = 3
Thread-1: 2 * 3 = 6

Process finished with exit code 0
```

Task2.java

```java
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;

public class MyVolatile extends Thread {
    private volatile boolean running = true;  2 usages

    @Override
    public void run() {
        while (running) {
            System.out.println(Thread.currentThread().getName() + ": Thread is running...");
            try {
                Thread.sleep( millis: 1000);
            } catch (InterruptedException e) {
                e.printStackTrace();
            }
        }
        System.out.println(Thread.currentThread().getName() + ": Thread stopped.");
    }

    public void shutdown() { running = false; }

    public static void main(String[] args) {
        MyVolatile thread = new MyVolatile();
        thread.start();

        System.out.println("Press ENTER to stop the thread...");

        try (BufferedReader reader = new BufferedReader(new InputStreamReader(System.in))) {
            reader.readLine();
        } catch (IOException e) {
            e.printStackTrace();
        }

        thread.shutdown();
    }
}
```

THE OUTPUT:

```
Press ENTER to stop the thread...
Thread-0: Thread is running...
Thread-0: Thread is running...
Thread-0: Thread is running...
Thread-0: Thread is running...


Thread-0: Thread stopped.


Process finished with exit code 0
```