

Task 1: Creating and Managing Threads

Write a program that starts two threads, where each thread prints numbers from 1 to 10 with a 1-second delay between each number.

ANS:

```
package com.Day23;
class PrintNumbers implements Runnable {
    private String threadName;
    public PrintNumbers(String threadName) {
        this.threadName = threadName;
    }
    @Override
    public void run() {
        for (int i = 1; i <= 10; i++) {
            System.out.println(threadName + ": " + i);
            try {
                Thread.sleep(1000); // 1-second delay
            } catch (InterruptedException e) {
                System.out.println(threadName + " interrupted.");
            }
        }
    }
}

public class Task1 {
    public static void main(String[] args) {
        // Create two runnable instances
        Runnable printTask1 = new PrintNumbers("Thread 1");
        Runnable printTask2 = new PrintNumbers("Thread 2");
        // Create two threads
        Thread thread1 = new Thread(printTask1);
        Thread thread2 = new Thread(printTask2);
        // Start the threads
        thread1.start();
        thread2.start();
        // Wait for both threads to complete
        try {
            thread1.join();
            thread2.join();
        } catch (InterruptedException e) {
            System.out.println("Main thread interrupted.");
        }
        System.out.println("Both threads have finished execution.");
    }
}
```

OUTPUT

```
Thread 1: 1
Thread 2: 1
Thread 2: 2
Thread 1: 2
Thread 2: 3
Thread 1: 3
Thread 1: 4
```

Thread 2: 4
Thread 1: 5
Thread 2: 5
Thread 2: 6
Thread 1: 6
Thread 1: 7
Thread 2: 7
Thread 2: 8
Thread 1: 8
Thread 1: 9
Thread 2: 9
Thread 1: 10
Thread 2: 10
Both threads have finished execution.