

ParallelUniverseExplorer1.java

```
4 public class ParallelUniverseExplorer1 {
5     private static final ForkJoinPool pool = new ForkJoinPool();
6     private static final List<String> sequentialTimeline = List.of(
7         "Big Bang",
8         "Formation of Galaxies",
9         "Birth of Solar System",
10        "Origin of Life",
11        "Human Civilization"
12    );
13    private static final List<String> parallelTimelines = List.of(
14        "Universe A",
15        "Universe B",
16        "Universe C",
17        "Universe D",
18        "Universe E"
19    );
20    public static void main(String[] args) {
21        System.out.println("Sequential Timeline Exploration\n");
22        exploreSequentialTimeline();
23        System.out.println("\n Parallel Timeline Exploration \n");
24        exploreParallelTimelines();
25    }
26    private static void exploreSequentialTimeline() {
27        sequentialTimeline.stream()
28            .forEach(event -> {
29                System.out.println("Exploring Event : " + event);
30                System.out.println("Thread Name : " + Thread.currentThread().getName());
31                simulateTask();
32                System.out.println("-----");
33            });
34    }
35    private static void exploreParallelTimelines() {
36        parallelTimelines.parallelStream()
37            .forEach(timeline -> {
38                System.out.println("Exploring Timeline : " + timeline);
39                System.out.println("Thread Name : " + Thread.currentThread().getName());
40                simulateTask();
41                System.out.println("-----");
42            });
43    }
44    private static void simulateTask() {
45        try {
46            Thread.sleep(500);
47        } catch (InterruptedException e) {
48            Thread.currentThread().interrupt();
49        }
50    }
51 }
```

Console

```
<terminated> ParallelUniverseExplorer1 [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe -Dfile.encoding=UTF-8 ParallelUniverseExplorer1
Sequential Timeline Exploration
Exploring Event : Big Bang
Thread Name : main
-----
Exploring Event : Formation of Galaxies
Thread Name : main
-----
Exploring Event : Birth of Solar System
Thread Name : main
-----
Exploring Event : Origin of Life
Thread Name : main
-----
Exploring Event : Human Civilization
Thread Name : main
-----
Parallel Timeline Exploration
Exploring Timeline : Universe C
Thread Name : main
Exploring Timeline : Universe B
Thread Name : ForkJoinPool.commonPool-worker-1
Exploring Timeline : Universe A
Thread Name : ForkJoinPool.commonPool-worker-3
Exploring Timeline : Universe E
Thread Name : ForkJoinPool.commonPool-worker-2
Exploring Timeline : Universe D
Thread Name : ForkJoinPool.commonPool-worker-4
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```