

1. Map do not support Stream
2. Parallel Stream is handle in multi-thread, do not guarantee order

◆ 2. Parallel Stream

- Created with `collection.parallelStream()` or `stream().parallel()`.
- **Parallel execution:** splits elements into **multiple chunks** and processes them in **different threads** (using `ForkJoinPool`).
- No guarantee of order (unless you use ordered operations like `.forEachOrdered()`).
- Best for **large datasets** or CPU-heavy operations.

👉 Example:

```
java 📄 Copy code  
  
import java.util.Arrays;  
import java.util.List;  
  
public class ParallelStreamDemo {  
    public static void main(String[] args) {  
        List<String> names = Arrays.asList("Tom", "Jerry", "Mickey", "Donald");  
  
        names.parallelStream()  
            .map(String::toUpperCase)  
            .forEach(System.out::println); // Order may vary  
    }  
}
```

🔗 May print in different orders, and runs on multiple threads.

3. Sequence Stream is in order

◆ 1. Stream

- Created with `collection.stream()`.
- **Sequential execution:** processes elements **one by one** in a single thread.
- Deterministic order (follows the order of the collection, like `List` index order).
- Suitable for **small datasets** or when thread-safety/order matters.

👉 Example:

java

📋 Copy code

```
import java.util.Arrays;
import java.util.List;

public class SequentialStream {
    public static void main(String[] args) {
        List<String> names = Arrays.asList("Tom", "Jerry", "Mickey", "Donald");

        names.stream()
            .map(String::toUpperCase)
            .forEach(System.out::println);
    }
}
```

📌 Runs in **one thread**, output order is predictable.

4.