

## Demo - criação de streams

```
List<Integer> list = Arrays.asList(3, 4, 5, 10, 7);  
Stream<Integer> st1 = list.stream();  
System.out.println(Arrays.toString(st1.toArray()));
```

```
Stream<String> st2 = Stream.of("Maria", "Alex", "Bob");  
System.out.println(Arrays.toString(st2.toArray()));
```

```
Stream<Integer> st3 = Stream.iterate(0, x -> x + 2);  
System.out.println(Arrays.toString(st3.limit(10).toArray()));
```

```
Stream<Long> st4 = Stream.iterate(new Long[]{ 0L, 1L }, p->new Long[]{ p[1], p[0]+p[1] }).map(p -> p[0]);  
System.out.println(Arrays.toString(st4.limit(10).toArray()));
```

## Pipeline (demo)

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## Demo - pipeline

```
List<Integer> list = Arrays.asList(3, 4, 5, 10, 7);

Stream<Integer> st1 = list.stream().map(x -> x * 10);
System.out.println(Arrays.toString(st1.toArray()));

int sum = list.stream().reduce(0, (x, y) -> x + y);
System.out.println("Sum = " + sum);

List<Integer> newList = list.stream()
    .filter(x -> x % 2 == 0)
    .map(x -> x * 10)
    .collect(Collectors.toList());
System.out.println(Arrays.toString(newList.toArray()));
```

## Exercício resolvido - filter, sorted, map, reduce

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