

## COLLECTORS EASY:

- (1) **Question:** Collect a list of integers into a `List`.?  
**Input:** [1, 2, 3, 4, 5]  
**Output:** [1, 2, 3, 4, 5]
- (2) **Question:** Collect a list of strings into a comma-separated `String`.?  
**Input:** ["apple", "banana", "cherry"]  
**Output:** apple, banana, cherry
- (3) **Question:** Collect a list of integers into a `Set` (removing duplicates).?  
**Input:** [1, 2, 2, 3, 3, 4, 5]  
**Output:** [1, 2, 3, 4, 5]
- (4) **Question:** Count the number of elements in a list of integers?  
**Input:** [1, 2, 3, 4, 5]  
**Output:** 5
- (5) **Question:** Collect the sum of a list of integers.  
**Input:** [1, 2, 3, 4, 5]  
**Output:** 15
- (6) **Question:** Collect a list of strings into a `List` of uppercase strings.  
**Input:** ["apple", "banana", "cherry"]  
**Output:** [APPLE, BANANA, CHERRY]
- (7) **Question:** Collect a list of booleans and count how many are true.  
**Input:** [true, false, true, true]  
**Output:** 3
- (8) **Question:** Find the maximum value in a list of integers.  
**Input:** [1, 2, 3, 4, 5]  
**Output:** 5
- (9) **Question:** Collect the minimum value in a list of integers.  
**Input:** [5, 3, 9, 2, 8]  
**Output:** 2

(10) **Question:** Join a list of characters into a single `String`?

Input: ['a', 'b', 'c']

Output: abc

**MEDIUM:**

(1) **Question:** Given a list of integers, create a map that counts the occurrences of each integer.?

Input:

```
List<Integer> list = Arrays.asList(1, 2, 2, 3, 1);
```

Output:

k: 1 = v : 2

k: 2 = v : 2

k: 3 = v : 1

(2) **Question:** Given a map of key-value pairs, create a new map that inverts the keys and values.?

Input:

```
Map<Integer, String> originalMap = new HashMap<>();  
originalMap.put(1, "a");  
originalMap.put(2, "b");  
originalMap.put(3, "c");
```

Output:

{a=1, b=2, c=3}

(3) **Task:** Collect a list of integers into a comma-separated string.?

Input: [3, 5, 7, 9]

Output: 3,5,7,9

(4) **Question:** Find the maximum value in a list of integers?

Input:

```
List<Integer> list = Arrays.asList(5, 12, 8, 21, 7);
```

Output: 21

**(5) Question: Remove duplicates from a list of integers?**

**Input:**

```
List<Integer> list = Arrays.asList(3, 5, 7, 9, 5, 7);
```

**Output:**

```
[3, 5, 7, 9]
```

**(6) Question: Filter even numbers from a list.?**

**Input:**

```
List<Integer> list = Arrays.asList(2, 3, 4, 5, 6);
```

**Output:**

```
[2, 4, 6]
```

**(7) Question: Find the frequency of characters in a string.?**

**Input:**

```
String input = "banana";
```

**Output:**

```
{b=1, a=3, n=2}
```

**(8) Question: Group words by their first character?**

**Input:**

```
List<String> words = Arrays.asList("apple", "ant", "banana", "ball", "cat");
```

**Output:**

```
{a=[apple, ant], b=[banana, ball], c=[cat]}
```

**(9) Question: Find the intersection of two lists.?**

**Input:**

```
List<Integer> list1 = Arrays.asList(1, 2, 3, 4);
```

```
List<Integer> list2 = Arrays.asList(3, 4, 5, 6);
```

**Output:** [3, 4]

**(10) Question: Merge two maps by summing the values of common keys.?**

**Input:**

```
Map<String, Integer> map1 = new HashMap<>();  
  
    map1.put("a", 3);  
    map1.put("b", 5);  
  
    // Initialize map2  
    Map<String, Integer> map2 = new HashMap<>();  
    map2.put("b", 7);  
    map2.put("c", 2);
```

**Output:**

**{a=3, b=12, c=2}**

**(11) Question: Sort a map by its values.?**

**Input:**

```
Map<String,Integer> map = new HashMap<>();  
    map.put("apple", 3);  
    map.put("banana", 5);  
    map.put("cherry", 1);
```

**Output:**

**{cherry=1, apple=3, banana=5}**

**(12) Question: Partition a list of numbers into even and odd groups.?**

**Input:**

```
List<Integer> list = Arrays.asList(1, 2, 3, 4, 5, 6);
```

**Output:**

**{even=[2, 4, 6], odd=[1, 3, 5]}**

(13) Question: Count the length of each word in a list.?

Input:

```
List<String> words = Arrays.asList("java", "code", "stream");
```

Output:

```
{java=4, code=4, stream=6}
```

(14) Question: Concatenate all strings in a list.?

Input:

```
List<String> words = Arrays.asList("hello", "world");
```

Output: helloworld

(15) Question: Find the first non-repeating character in a string.?

Input:

```
String input = "swiss";
```

Output: w