

## C002: Java Streams

Sure! Here are some Java Stream coding questions that can test various concepts like filtering, mapping, reducing, and more:

### 1. Filter and Print Odd Numbers from a List [🔗](#)

Given a list of integers, write a Java Stream code to filter out even numbers and print the odd numbers.

```
1 List<Integer> numbers = Arrays.asList(1, 2, 3, 4, 5, 6, 7, 8, 9, 10);  
2
```

### 2. Sum of All Numbers [🔗](#)

Using Streams, calculate the sum of all numbers in a list of integers.

```
1 List<Integer> numbers = Arrays.asList(1, 2, 3, 4, 5, 6, 7, 8, 9, 10);  
2
```

### 3. Find the Maximum Number [🔗](#)

Write a Stream code to find the maximum number in a given list of integers.

```
1 List<Integer> numbers = Arrays.asList(10, 20, 5, 40, 60, 30);  
2
```

### 4. Count Words Starting with 'A' [🔗](#)

Given a list of strings, count how many words start with the letter 'A'.

```
1 List<String> words = Arrays.asList("Apple", "Banana", "Avocado", "Peach", "Apricot", "Berry");  
2
```

### 5. Average of Even Numbers [🔗](#)

Write a Java Stream program to calculate the average of all even numbers in a list.

```
1 List<Integer> numbers = Arrays.asList(1, 2, 3, 4, 5, 6, 7, 8, 9, 10);  
2
```

### 6. Convert List of Strings to Uppercase [🔗](#)

Convert a list of strings to uppercase using Java Streams.

```
1 List<String> words = Arrays.asList("java", "stream", "example");  
2
```

### 7. Remove Duplicates and Sort [🔗](#)

Given a list of integers, remove the duplicates and sort them in ascending order using Java Streams.

```
1 List<Integer> numbers = Arrays.asList(5, 3, 9, 5, 1, 3, 8);  
2
```

### 8. Group Strings by Length [🔗](#)

Write a Stream code that groups a list of strings by their length.

```
1 List<String> words = Arrays.asList("apple", "bat", "batman", "cherry", "dog", "elephant");
2
```

## 9. Concatenate List of Strings [🔗](#)

Given a list of strings, concatenate them into a single string, with a space separating each word.

```
1 List<String> words = Arrays.asList("Hello", "World", "Java", "Stream");
2
```

## 10. Find the First Element Matching a Predicate [🔗](#)

Write a Java Stream code that finds the first string in a list that has more than 5 characters.

```
1 List<String> words = Arrays.asList("apple", "banana", "cherry", "date", "kiwi");
2
```

## 11. FlatMap Example [🔗](#)

Given a list of lists, flatten the lists and print all the elements.

```
1 List<List<String>> listOfLists = Arrays.asList(
2     Arrays.asList("apple", "banana"),
3     Arrays.asList("cherry", "date"),
4     Arrays.asList("kiwi", "lemon")
5 );
6
```

## 12. Map to Double the Values [🔗](#)

Given a list of integers, create a new list where each integer is doubled.

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

## 13. Find First Element [🔗](#)

Given a list of integers, find the first element that is divisible by 3.

```
1 List<Integer> numbers = Arrays.asList(5, 7, 8, 9, 11, 12, 13);
2
```

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