

Functional Practice Question Set 4

Instructions:

Make use of `.reduce()` method in this set.

You can make use of basic methods such as `.length`, `toLowerCase()`, `toUpperCase()` if needed.

Do NOT use for-loops.

1. Given an array, write an ES6 function that returns the total length of all the strings in an array.

```
const strings = ['apple', 'banana', 'cherry', 'date', 'blueberry']  
// Your code here
```

```
console.log(totalLength(strings))  
// Output: 30
```

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2. Write an ES6 function `sumSquares` that takes an array of numbers and returns the sum of the squares of all the numbers in the array

```
const numbers = [1, 2, 3, 4, 5]  
// Your code here
```

```
console.log(sumSquares(numbers))  
// Output: 55
```

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3. Write an ES6 function that calculates and returns the total value of all items in an array of objects.

```
const items = [  
  { name: 'Item 1', price: 10 },  
  { name: 'Item 2', price: 20 },  
  { name: 'Item 3', price: 30 },  
]  
// Your code here
```

```
console.log(totalValue(items))  
// Output: 60
```

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4. Write an ES6 function that takes an array of strings as input and concatenates them into a single string.

```
// Your code here
```

```
console.log(concatStrings(['this', 'is', 'fun'])) // Output: 'thisisfun'
```

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5. Write an ES6 function to multiply and return all the elements of a given array.

```
const numbers = [1, 2, 3, 4, 5]  
// Your code here
```

```
console.log(product(numbers))
```

```
// Output: 120
```

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6. Write an ES6 function that takes an array of strings and returns the longest string.

```
const strings = ['neogcamp', 'Haule Haule', 'code', 'Batman', 'Awesome']  
// Your code here
```

```
console.log(longestString(strings))  
// Output: 'Haule Haule'
```

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7. Write an ES6 function that takes an array of objects with name and age property, and returns the name of the oldest person.

```
const people = [  
  { name: 'Jeena', age: 25 },  
  { name: 'Priya', age: 30 },  
  { name: 'Naina', age: 45 },  
]  
// Your code here
```

```
console.log(oldestPersonName(people))  
// Output: 'Naina'
```

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8. Write an ES6 function that takes an array of objects representing people with properties name and age, and returns an object with the average age of all the people.

```
const people = [  
  { name: 'Alice', age: 25 },  
  { name: 'Bob', age: 30 },  
  { name: 'Charlie', age: 35 },  
  { name: 'David', age: 40 },  
]  
// Your code here
```

```
console.log(getAverageAge(people))  
// Output: { averageAge: 32.5 }
```

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9. Write an ES6 function that takes an array of objects representing products with properties name, price, and quantity, and returns an object with the most expensive product.

```
const products = [  
  { name: 'Bread', price: 10, quantity: 2 },  
  { name: 'Clips', price: 20, quantity: 5 },  
  { name: 'Knife', price: 30, quantity: 1 },  
  { name: 'Slipper', price: 40, quantity: 3 },  
]  
// Your code here
```

```
console.log(findMostExpensiveProduct(products))  
// { name: "Slipper", price: 40, quantity: 3 }
```

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10. Write an ES6 function that takes an array of strings and returns an object with the count of each string.

```
const fruits = [  
  'apple',  
  'banana',  
  'banana',  
]
```

```
'cherry',  
'apple',  
'apple',  
'banana',  
]  
// Your code here  
  
console.log(countStrings(fruits))  
// Output: { 'apple': 3, 'banana': 3, 'cherry': 1 }
```