



Dzulfikar Fathin A


HomeWork Javascript & Version Control


Code: <https://github.com/dzulfy/HomeWork-js-vcs>


dzulfy/**HomeWork-
js-vcs**




 1
Contributor

 0
Issues

 0
Stars

 0
Forks



```
JS index.js > ...
1 //100 nilai acak antara 1 dan 50
2 function generateRandomArray() {
3   const randomArray = [];
4   for (let i = 0; i < 100; i++) {
5     const randomNumber = Math.floor(Math.random() * 50) + 1; //menggunakan Math.floor untuk dibulatkan angkanya ke bawah
6     randomArray.push(randomNumber);
7   }
8   return randomArray;
9 }
10
11 //array genap dan array ganjil
12 function separateEvenOddArray(originalArray) {
13   const evenArray = [];
14   const oddArray = [];
15   for (let i = 0; i < originalArray.length; i++) {
16     if (originalArray[i] % 2 === 0) {
17       evenArray.push(originalArray[i]);
18     } else {
19       oddArray.push(originalArray[i]);
20     }
21   }
22   return [evenArray, oddArray];
23 }
24
25
26 //nilai minimum dalam array
27 function findMinValue(array) {
28   let minValue = array[0];
29   for (let i = 1; i < array.length; i++) {
30     if (array[i] < minValue) {
31       minValue = array[i];
32     }
33   }
34   return minValue;
35 }
```

```
JS indexjs > ...
35 }
36
37 //nilai maksimum dalam array
38 function findMaxValue(array) {
39   let maxValue = array[0];
40   for (let i = 1; i < array.length; i++) {
41     if (array[i] > maxValue) {
42       maxValue = array[i];
43     }
44   }
45   return maxValue;
46 }
47
48 //menghitung total nilai dalam array
49 function calculateTotal(array) {
50   let total = 0;
51   for (let i = 0; i < array.length; i++) {
52     total += array[i];
53   }
54   return total;
55 }
56
57 // menghitung rata-rata dalam array
58 function calculateAverage(array) {
59   const total = calculateTotal(array);
60   return total / array.length;
61 }
62
63 //array acak
64 const randomArray = generateRandomArray();
65
66 //array menjadi array genap dan ganjil
67 const [evenArray, oddArray] = separateEvenOddArray(randomArray);
68
69 // min max total dan rata-rata untuk masing-masing array
```

```
JS indexjs > ...
69 // min, max, total, dan rata-rata untuk masing-masing array
70 const minEven = findMinValue(evenArray);
71 const maxEven = findMaxValue(evenArray);
72 const totalEven = calculateTotal(evenArray);
73 const averageEven = calculateAverage(evenArray);
74
75 const minOdd = findMinValue(oddArray);
76 const maxOdd = findMaxValue(oddArray);
77 const totalOdd = calculateTotal(oddArray);
78 const averageOdd = calculateAverage(oddArray);
79
80 const comparisonResults = {
81   minComparison: minEven > minOdd ? "Min lebih besar pada array genap" : "Min lebih besar pada array ganjil",
82   maxComparison: maxEven > maxOdd ? "Max lebih besar pada array genap" : "Max lebih besar pada array ganjil",
83   totalComparison: totalEven === totalOdd ? "Total memiliki nilai sama pada array genap dan ganjil" : "Total memiliki nilai berbeda pada array genap dan ganjil",
84   averageComparison: averageEven > averageOdd ? "Rata-rata lebih besar pada array genap" : "Rata-rata lebih besar pada array ganjil",
85 };
86
87 console.log("Array dengan jumlah index 100:", randomArray);
88 console.log("Array genap dengan jumlah index 50:", evenArray);
89 console.log("Array ganjil dengan jumlah index 50:", oddArray);
90 console.log("Min, Max, Total, dan Rata-rata pada array genap:");
91 console.log("Min:", minEven);
92 console.log("Max:", maxEven);
93 console.log("Total:", totalEven);
94 console.log("Rata-rata:", averageEven);
95 console.log("Min, Max, Total, dan Rata-rata pada array ganjil:");
96 console.log("Min:", minOdd);
97 console.log("Max:", maxOdd);
98 console.log("Total:", totalOdd);
99 console.log("Rata-rata:", averageOdd);
100 console.log("Perbandingan:");
101 console.log(comparisonResults);
```

Output:

The image shows a VS Code editor with a terminal window open. The terminal displays the output of a JavaScript script. The script generates two arrays of 100 random numbers each, one even and one odd, and calculates their statistics.

```
user@DESKTOP-02TS08Q MINGW64 ~/Desktop/Rakamin/Week - 4
$ node ./index.js
Array dengan jumlah index 100: [
  10, 18, 15, 29, 37, 4, 25, 35, 48, 39, 34, 45,
  23, 8, 30, 8, 33, 34, 20, 21, 29, 6, 1, 32,
  23, 27, 29, 3, 30, 42, 8, 39, 40, 37, 4, 39,
  4, 7, 24, 15, 22, 25, 41, 5, 16, 42, 38, 23,
  50, 33, 34, 42, 38, 43, 11, 6, 43, 27, 13, 21,
  34, 21, 2, 11, 24, 3, 14, 35, 50, 42, 2, 4,
  24, 20, 41, 29, 12, 35, 13, 24, 24, 15, 2, 42,
  34, 27, 43, 24, 4, 39, 23, 21, 46, 18, 28, 13,
  28, 27, 11, 19
]
Array genap dengan jumlah index 50: [
  10, 18, 4, 48, 34, 8, 30, 8, 34, 20, 6,
  32, 30, 42, 8, 40, 4, 4, 24, 22, 16, 42,
  38, 50, 34, 42, 38, 6, 34, 2, 24, 14, 50,
  42, 2, 4, 24, 20, 12, 24, 24, 2, 42, 34,
  24, 4, 46, 18, 28, 28
]
Array ganjil dengan jumlah index 50: [
  15, 29, 37, 25, 35, 39, 45, 23, 33, 21, 29,
  1, 23, 27, 29, 3, 39, 37, 39, 7, 15, 25,
  41, 5, 23, 33, 43, 11, 43, 27, 13, 21, 21,
  11, 3, 35, 41, 29, 35, 13, 15, 27, 43, 39,
  23, 21, 13, 27, 11, 19
]
Min, Max, Total, dan Rata-rata pada array genap:
Min: 2
Max: 50
Total: 1194
Rata-rata: 23.88
Min, Max, Total, dan Rata-rata pada array ganjil:
Min: 1
Max: 45
Total: 1262
Rata-rata: 25.24
Perbandingan:
{
```

The terminal window is titled "Week - 4". The VS Code interface shows the "TERMINAL" tab selected. The status bar at the bottom indicates the file is "Ln 90, Col 65" and the encoding is "UTF-8".

```
← → Week - 4
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
34, 27, 43, 24, 4, 39, 23, 21, 46, 18, 28, 13,
28, 27, 11, 19
}
Array genap dengan jumlah index 50: [
10, 18, 4, 48, 34, 8, 30, 8, 34, 20, 6,
32, 30, 42, 8, 40, 4, 4, 24, 22, 16, 42,
38, 50, 34, 42, 38, 6, 34, 2, 24, 14, 50,
42, 2, 4, 24, 20, 12, 24, 24, 2, 42, 34,
24, 4, 46, 18, 28, 28
]
Array ganjil dengan jumlah index 50: [
15, 29, 37, 25, 35, 39, 45, 23, 33, 21, 29,
1, 23, 27, 29, 3, 39, 37, 39, 7, 15, 25,
41, 5, 23, 33, 43, 11, 43, 27, 13, 21, 21,
11, 3, 35, 41, 29, 35, 13, 15, 27, 43, 39,
23, 21, 13, 27, 11, 19
]
Min, Max, Total, dan Rata-rata pada array genap:
Min: 2
Max: 50
Total: 1194
Rata-rata: 23.88
Min, Max, Total, dan Rata-rata pada array ganjil:
Min: 1
Max: 45
Total: 1262
Rata-rata: 25.24
Perbandingan:
{
  minComparison: 'Min lebih besar pada array genap',
  maxComparison: 'Max lebih besar pada array genap',
  totalComparison: 'Total memiliki nilai berbeda pada array genap dan ganjil',
  averageComparison: 'Rata-rata lebih besar pada array ganjil'
}
user@DESKTOP-02T50BQ MINGW64 ~/Desktop/Rakamin/Week - 4
$
```