

**sortAndSet.js**

```
1  /*
2    Author: zikrimansyursyah
3
4    Case :
5    - terdapat sejumlah data calon mahasiswa (pendaftar) yang telah di deklarasikan
    pada variabel pendaftar
6    - kemudian anda diminta untuk menambahkan value grade pada setiap data pendaftar
7    - acuan pemberian value grade dengan menggunakan score
8      A: 85-100
9      B: 70-84
10     C: 55-69
11     D: 40-54
12     E: 0-39
13
14    Example Input: (pada variabel pendaftar)
15    Expected Output:
16    [
17      { name: "Andi", score: 85, grade: "A" },
18      { name: "Budi", score: 70, grade: "B" },
19      { name: "Citra", score: 92, grade: "A" },
20      { name: "Dewi", score: 78, grade: "B" },
21      { name: "Eko", score: 60, grade: "C" },
22      { name: "Fika", score: 88, grade: "A" },
23      { name: "Gita", score: 75, grade: "B" },
24      { name: "Hendra", score: 81, grade: "A" },
25      { name: "Indra", score: 67, grade: "C" },
26      { name: "Joko", score: 94, grade: "A" },
27      { name: "Krisna", score: 72, grade: "B" },
28      { name: "Lia", score: 89, grade: "A" },
29      { name: "Mira", score: 63, grade: "C" },
30      { name: "Nanda", score: 77, grade: "B" },
31      { name: "Oscar", score: 83, grade: "A" }
32    ]
33
34    Notes:
35    - dilarang menggunakan array prototype seperti .map() .sort() .filter() dll
36    - tampilkan expected output dengan console.log()
37  */
38
39  function tambahkanGrade(data) {
40    let hasil = [];
41
42    for (let i = 0; i < data.length; i++) {
43      let nilai = data[i].score;
44      let grade = "";
45
46      if (nilai ≥ 85 && nilai ≤ 100) {
47        grade = "A";
48      } else if (nilai ≥ 70 && nilai ≤ 84) {
49        grade = "B";
50      } else if (nilai ≥ 55 && nilai ≤ 69) {
51        grade = "C";
```

```
52     } else if (nilai ≥ 40 && nilai ≤ 54) {
53         grade = "D";
54     } else {
55         grade = "E";
56     }
57
58     let dataBaru = {
59         name: data[i].name,
60         score: nilai,
61         grade: grade,
62     };
63
64     hasil.push(dataBaru);
65 }
66
67 return hasil;
68 }
69
70 // CASE VALUE
71 const pendaftar = [
72     { name: "Andi", score: 85 },
73     { name: "Budi", score: 70 },
74     { name: "Citra", score: 92 },
75     { name: "Dewi", score: 78 },
76     { name: "Eko", score: 60 },
77     { name: "Fika", score: 88 },
78     { name: "Gita", score: 75 },
79     { name: "Hendra", score: 81 },
80     { name: "Indra", score: 67 },
81     { name: "Joko", score: 94 },
82     { name: "Krisna", score: 72 },
83     { name: "Lia", score: 89 },
84     { name: "Mira", score: 63 },
85     { name: "Nanda", score: 77 },
86     { name: "Oscar", score: 83 },
87 ];
88
89 // TEST CASE
90 console.log(tambahkanGrade(pendaftar));
91
```