

Nama Event : **CASE STUDY OBJECT-ORIENTED**

Nama Lengkapmu - No. Hp : Andi Abdul Syukur - 081345380055

Detail Waktu Acara : 26 – 1 – 2026, 11.00 – 13.00 Wita

Nama Mentor : Audy Wisuda Pratama

Nama Moderator : Mas Dayat & mba puput

Judul Ice Breaking :

KODINGAN

Tugas 1

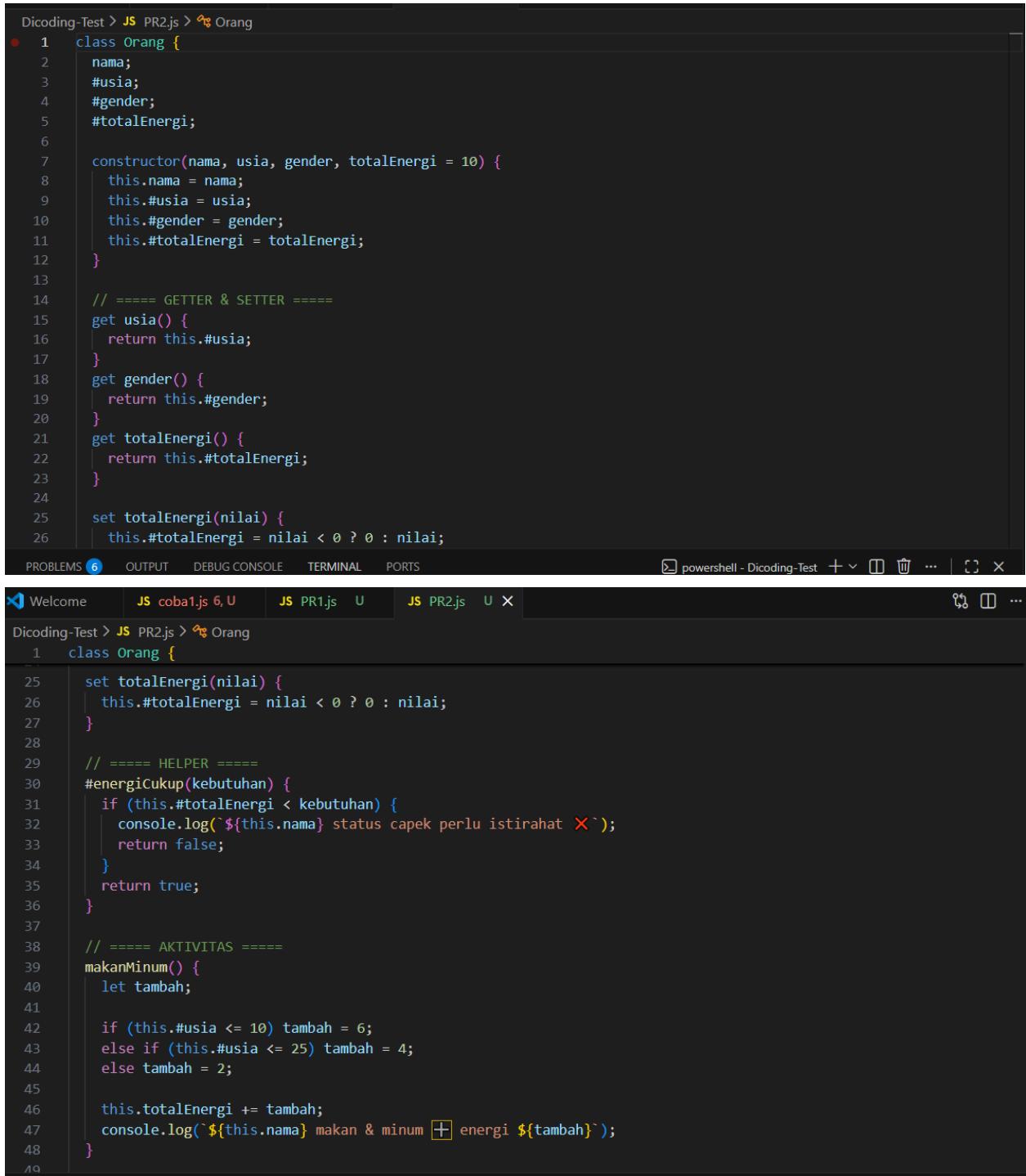
```
Dicoding-Test > JS PR1.js > Hewan
1 class Hewan {
2   breed;
3   usia;
4   gender;
5   makeSound(){           //mengeluarkan suara masing2
6     console.log("suara hewan");
7   }
8
9
10}
11
12 class Kucing extends Hewan{
13   jumlahKaki=4;
14   constructor(nama,usia,gender,breed){
15     super();
16     this.nama = nama;
17     this.usia= usia;
18     this.gender = gender;
19     this.breed =breed;
20   }
21   makeSound(){
22     console.log("meong");
23   }
24 }
25
26}
```

```
class Anjing extends Hewan{  
    jumlahKaki=4;  
    constructor(nama,usia,gender,breed){  
        super();  
        this.nama = nama;  
        this.usia= usia;  
        this.gender = gender;  
        this.breed =breed;  
    }  
    makeSound(){  
        console.log("guguk");  
    }  
}
```

The screenshot shows a Visual Studio Code interface with the following details:

- Top Bar:** Shows tabs for "OUTPUT", "DEBUG CONSOLE", "TERMINAL", and "PORTS".
- Left Sidebar:** Shows a tree view with "Dicoding-Test > JS PR1.js 6, U".
- Code Editor:** Displays the content of `PR1.js`. The code defines a `Sapi` class extending `Hewan`, with properties `nama`, `usia`, `gender`, and `breed`. It includes a `makeSound` method that logs "moo". The code then creates instances of `Kucing`, `Sapi`, and `Anjing` and logs their details.
- Terminal:** Shows the command prompt and the output of running `node .\PR1.js`. The output includes:
 - PS C:\Users\ukku\Downloads\Compressed> `cd .\Dicoding-Test\`
 - PS C:\Users\ukku\Downloads\Compressed\Dicoding-Test> `node .\PR1.js`
 - Milo
 - 4
 - meong
 - moo
 - guguk
 - Sapi {
 - breed: 'Simental'
 - usia: 3

Tugas 2



Dicoding-Test > JS PR2.js > Orang

```
1 class Orang {
2     nama;
3     #usia;
4     #gender;
5     #totalEnergi;
6
7     constructor(nama, usia, gender, totalEnergi = 10) {
8         this.nama = nama;
9         this.#usia = usia;
10        this.#gender = gender;
11        this.#totalEnergi = totalEnergi;
12    }
13
14    // ===== GETTER & SETTER =====
15    get usia() {
16        return this.#usia;
17    }
18    get gender() {
19        return this.#gender;
20    }
21    get totalEnergi() {
22        return this.#totalEnergi;
23    }
24
25    set totalEnergi(nilai) {
26        this.#totalEnergi = nilai < 0 ? 0 : nilai;
27    }
28
29    // ===== HELPER =====
30    #energiCukup(kebutuhan) {
31        if (this.#totalEnergi < kebutuhan) {
32            console.log(`[${this.nama}] status capek perlu istirahat X`);
33            return false;
34        }
35        return true;
36    }
37
38    // ===== AKTIVITAS =====
39    makanMinum() {
40        let tambah;
41
42        if (this.#usia <= 10) tambah = 6;
43        else if (this.#usia <= 25) tambah = 4;
44        else tambah = 2;
45
46        this.totalEnergi += tambah;
47        console.log(`[${this.nama}] makan & minum + energi ${tambah}`);
48    }
49}
```

PROBLEMS 6 OUTPUT DEBUG CONSOLE TERMINAL PORTS

powershell - Dicoding-Test + ×

Welcome JS coba1.js 6, U JS PR1.js U JS PR2.js U X

Dicoding-Test > JS PR2.js > Orang

```
1 class Orang {
2
3     set totalEnergi(nilai) {
4         this.#totalEnergi = nilai < 0 ? 0 : nilai;
5     }
6
7     // ===== HELPER =====
8     #energiCukup(kebutuhan) {
9         if (this.#totalEnergi < kebutuhan) {
10            console.log(`[${this.nama}] status capek perlu istirahat X`);
11            return false;
12        }
13        return true;
14    }
15
16    // ===== AKTIVITAS =====
17    makanMinum() {
18        let tambah;
19
20        if (this.#usia <= 10) tambah = 6;
21        else if (this.#usia <= 25) tambah = 4;
22        else tambah = 2;
23
24        this.totalEnergi += tambah;
25        console.log(`[${this.nama}] makan & minum + energi ${tambah}`);
26    }
27
28    // ===== GETTER & SETTER =====
29    get usia() {
30        return this.#usia;
31    }
32    get gender() {
33        return this.#gender;
34    }
35    get totalEnergi() {
36        return this.#totalEnergi;
37    }
38
39    set totalEnergi(nilai) {
40        this.#totalEnergi = nilai < 0 ? 0 : nilai;
41    }
42
43    // ===== HELPER =====
44    #energiCukup(kebutuhan) {
45        if (this.#totalEnergi < kebutuhan) {
46            console.log(`[${this.nama}] status capek perlu istirahat X`);
47            return false;
48        }
49        return true;
50    }
51
52    // ===== AKTIVITAS =====
53    makanMinum() {
54        let tambah;
55
56        if (this.#usia <= 10) tambah = 6;
57        else if (this.#usia <= 25) tambah = 4;
58        else tambah = 2;
59
60        this.totalEnergi += tambah;
61        console.log(`[${this.nama}] makan & minum + energi ${tambah}`);
62    }
63
64    // ===== GETTER & SETTER =====
65    get usia() {
66        return this.#usia;
67    }
68    get gender() {
69        return this.#gender;
70    }
71    get totalEnergi() {
72        return this.#totalEnergi;
73    }
74
75    set totalEnergi(nilai) {
76        this.#totalEnergi = nilai < 0 ? 0 : nilai;
77    }
78
79    // ===== HELPER =====
80    #energiCukup(kebutuhan) {
81        if (this.#totalEnergi < kebutuhan) {
82            console.log(`[${this.nama}] status capek perlu istirahat X`);
83            return false;
84        }
85        return true;
86    }
87
88    // ===== AKTIVITAS =====
89    makanMinum() {
90        let tambah;
91
92        if (this.#usia <= 10) tambah = 6;
93        else if (this.#usia <= 25) tambah = 4;
94        else tambah = 2;
95
96        this.totalEnergi += tambah;
97        console.log(`[${this.nama}] makan & minum + energi ${tambah}`);
98    }
99}
```

```
tidur(jam) {
    let tambah;

    if (this.#usia <= 10) tambah = jam + 3;
    else if (this.#usia <= 25) tambah = jam + 2;
    else tambah = jam + 1;

    this.totalEnergi += tambah;
    console.log(` ${this.nama} tidur ${jam} jam + energi ${tambah}`);
}

sekolahAtauKerja(jam) {
    let kurang;

    if (this.#usia <= 10) kurang = jam + 3;
    else if (this.#usia <= 25) kurang = jam + 5;
    else kurang = jam + 7;

    if (!this.#energiCukup(kurang)) return;

    this.totalEnergi -= kurang;
    console.log(` ${this.nama} sekolah/kerja ${jam} jam - energi ${kurang}`);
}
```

EMS 6 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
1  class Orang {  
2      olahraga(jam) {  
3          let kurang;  
4  
5          if (this.#usia <= 10) kurang = jam + 2;  
6          else if (this.#usia <= 25) kurang = jam + 3;  
7          else kurang = jam + 5;  
8  
9          if (!this.#energiCukup(kurang)) return;  
10  
11         this.totalEnergi -= kurang;  
12         console.log(` ${this.nama} olahraga ${jam} jam — energi ${kurang}`);  
13     }  
14 }  
15 const andi = new Orang('Andi', 20, 'Laki-laki', 10);  
16 console.log('Energi awal:', andi.totalEnergi);  
17 andi.makanMinum(); // +4  
18 console.log('Energi akhir:', andi.totalEnergi);  
19 andi.sekolahAtauKerja(3); // -(3 + 5)  
20 console.log('Energi akhir:', andi.totalEnergi);  
21 andi.olahraga(2); // -(2 + 3)  
22 console.log('Energi akhir:', andi.totalEnergi);  
23 andi.tidur(4); // +(4 + 2)  
24 andi.sekolahAtauKerja(3); // -(3 + 5)  
25 console.log('Energi akhir:', andi.totalEnergi);  
26 andi.sekolahAtauKerja(3); // -(3 + 5)  
27 console.log('Energi akhir:', andi.totalEnergi);  
28 andi.sekolahAtauKerja(3); // -(3 + 5)
```

```
1  class Orang {  
2      olahraga(jam) {  
3      }  
4 }  
5 const andi = new Orang('Andi', 20, 'Laki-laki', 10);  
6 console.log('Energi awal:', andi.totalEnergi);  
7 andi.makanMinum(); // +4  
8 console.log('Energi akhir:', andi.totalEnergi);  
9 andi.sekolahAtauKerja(3); // -(3 + 5)  
10 console.log('Energi akhir:', andi.totalEnergi);  
11 andi.olahraga(2); // -(2 + 3)  
12 console.log('Energi akhir:', andi.totalEnergi);  
13 andi.tidur(4); // +(4 + 2)  
14 andi.sekolahAtauKerja(3); // -(3 + 5)  
15 console.log('Energi akhir:', andi.totalEnergi);  
16 andi.sekolahAtauKerja(3); // -(3 + 5)  
17  
18 console.log('Energi akhir:', andi.totalEnergi);  
19 console.log('Energi akhir:', andi.totalEnergi);
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

powershell - Dicoding-Test + × ⌂ ⌂ ⌂ ⌂ ⌂ ⌂

- Energi awal: 10
andi makan & minum + energi 4
Energi akhir: 14
andi sekolah/kerja 3 jam — energi 8
Energi akhir: 6
andi olahraga 2 jam — energi 5
Energi akhir: 1
andi tidur 4 jam + energi 6
andi status capek perlu istirahat ✕
Energi akhir: 7