

bagian2_json.py

```
1 import json
2
3 print("=== BAGIAN 2: DATA SEMI-TERSTRUKTUR (JSON) ===")
4
5 # Baca file JSON
6 with open('profil.json', 'r', encoding='utf-8') as file:
7     data = json.load(file)
8     print("Data JSON berhasil dimuat!")
9
10 # Akses data langsung
11 print(f"\nNama: {data['nama']}")
12 print(f"Umur: {data['umur']}")
13 print(f"Jurusan: {data['jurusan']}")
14
15 # Akses data nested (alamat)
16 print(f"\nAlamat:")
17 print(f"Jalan: {data['alamat']['jalan']}")
18 print(f"Kota: {data['alamat']['kota']}")
19 print(f"Kode Pos: {data['alamat']['kode_pos']}")
20
21 # Akses data array (hobi)
22 print(f"\nHobi:")
23 for i, hobi in enumerate(data['hobi'], 1):
24     print(f"{i}. {hobi}")
25
26 # Akses data nested dalam array (nilai)
27 print(f"\nNilai Mata Kuliah:")
28 for matkul in data['nilai']:
29     print(f"- {matkul['nama']}: {matkul['skor']}")
30
31 # Hitung rata-rata nilai
32 total_nilai = sum([matkul['skor'] for matkul in data['nilai']])
33 rata_nilai = total_nilai / len(data['nilai'])
34 print(f"\nRata-rata nilai: {rata_nilai:.2f}")
35
36 # Tampilkan struktur JSON dengan indentasi
37 print(f"\nStruktur JSON lengkap:")
38 print(json.dumps(data, indent=2, ensure_ascii=False))
39
40 print("=== SELESAI ===")
```