

Nama : Dzikri Naufal Wisnu Pravida

NIM : 2211104063

Kelas : SE0603

LAPORAN TUGAS JURNAL MODUL 7

Source Code :

DataMahasiswa

```
1 // Import fs untuk membaca file
2 import fs from 'fs';
3
4 // Membaca file JSON
5 const data = fs.readFileSync('./jurnal7_1_2211104063.json', 'utf-8');
6 const mahasiswa = JSON.parse(data);
7
8 // Menampilkan hasil ke console
9 console.log("=== Data Mahasiswa ===");
10 console.log(`Nama : ${mahasiswa.nama}`);
11 console.log(`NIM : ${mahasiswa.nim}`);
12 console.log(`Kelas : ${mahasiswa.kelas}`);
13 console.log(`Email : ${mahasiswa.email}`);
14
```

JSON:

```
1 {
2   "nama": "Dzikri Naufal Wisnu Pravida",
3   "nim": "2211104063",
4   "kelas": "SE0603",
5   "email": "dzikri@telkomuniversity.ac.id"
6 }
7
```

Output :

```
[Running] node "d:\PERKULIAHAN\FOLDER SEMESTER 6\prak
KPL\REPOSITORI\KPL_DZIKRI_NAUFAL_WISNU_PRAVIDA_2211104063_SE0603\07_Grammar-Based_Input_Processing_Parsing\DataMahasiswa2211104063.js"
=== Data Mahasiswa ===
Nama   : Dzikri Naufal Wisnu Pravida
NIM    : 2211104063
Kelas : SE0603
Email  : dzikri@telkomuniversity.ac.id

[Done] exited with code=0 in 0.107 seconds
```

Penjelasan :

Pada program ini, kita membaca file jurnal7_1_2211104063.json menggunakan module fs, lalu mendeserialisasi isinya menjadi object JavaScript. Data yang diambil berupa informasi pribadi mahasiswa seperti nama, NIM, kelas, dan email, kemudian ditampilkan secara terformat ke console.

TeamMember

```
1 // Import fs untuk membaca file
2 import fs from 'fs';
3
4 // Membaca file JSON
5 const data = fs.readFileSync('./jurnal7_2_2211104063.json', 'utf-8');
6 const teamMembers = JSON.parse(data);
7
8 // Menampilkan hasil ke console
9 console.log("=== Team Member List ===");
10 teamMembers.forEach(member => {
11   console.log(`${member.nim} ${member.firstname} ${member.lastname} (${member.age} ${member.gender})`);
12 });
13
```

JSON :

```
1  [
2    {
3      "nim": "2211104063",
4      "firstname": "Dzikri Naufal",
5      "lastname": "WIsnu Pravida",
6      "age": 21,
7      "gender": "Male"
8    }
9  ]
10
```

Output :

```
[Running] node "d:\PERKULIAHAN\FOLDER SEMESTER 6\prak
KPL\REPOSITORI\KPL_DZIKRI_NAUHAL_WISNU_PRAVIDA_2211104063_SE0603\07_Grammar-Based_Input_Processing_Parsing\TeamMembers2211104063.js"
=== Team Member List ===
2211104063 Dzikri Naufal WIsnu Pravida (21 Male)

[Done] exited with code=0 in 0.144 seconds
```

Penjelasan :

Di program ini, file jurnal7_2_2211104063.json berisi array daftar anggota tim. File tersebut dibaca, kemudian setiap item array di-looping menggunakan forEach untuk ditampilkan dalam format "<nim> <nama lengkap> (<umur> <gender>)".

GlossaryItem

```
1 // Import fs untuk membaca file
2 import fs from 'fs';
3
4 // Membaca file JSON
5 const data = fs.readFileSync('./jurnal7_3_2211104063.json', 'utf-8');
6 const glossary = JSON.parse(data);
7
8 // Mengakses bagian GlossEntry saja
9 const glossEntry = glossary.glossary.GlossDiv.GlossList.GlossEntry;
10
11 // Menampilkan hasil ke console
12 console.log("=== Glossary Entry ===");
13 console.log(`ID: ${glossEntry.ID}`);
14 console.log(`SortAs: ${glossEntry.SortAs}`);
15 console.log(`GlossTerm: ${glossEntry.GlossTerm}`);
16 console.log(`Acronym: ${glossEntry.Acronym}`);
17 console.log(`Abbreviation: ${glossEntry.Abbrev}`);
18 console.log(`Definition: ${glossEntry.GlossDef.para}`);
19 console.log(`GlossSee: ${glossEntry.GlossSee}`);
20 console.log(`GlossSeeAlso: ${glossEntry.GlossDef.GlossSeeAlso.join(', ')}`);
21
```

JSON

```
1 {
2   "glossary": {
3     "title": "example glossary",
4     "GlossDiv": {
5       "title": "S",
6       "GlossList": {
7         "GlossEntry": {
8           "ID": "SGML",
9           "SortAs": "SGML",
10          "GlossTerm": "Standard Generalized Markup Language",
11          "Acronym": "SGML",
12          "Abbrev": "ISO 8879:1986",
13          "GlossDef": {
14            "para": "A meta-markup language",
15            "GlossSeeAlso": ["GML", "XML"]
16          },
17          "GlossSee": "markup"
18        }
19      }
20    }
21  }
22 }
23
```

Output :

```
[Running] node "d:\PERKULIAHAN\FOLDER SEMESTER 6\prak
KPL\REPOSITORI\KPL_DZIKRI_NAUHAL_WISNU_PRAVIDA_2211104063_SE0603\07_Grammar-Based_Input_Processing_Parsing\GlossaryItem2211104063.js"
=== Glossary Entry ===
ID: SGML
SortAs: SGML
GlossTerm: Standard Generalized Markup Language
Acronym: SGML
Abbreviation: ISO 8879:1986
Definition: A meta-markup language
GlossSee: markup
GlossSeeAlso: GML, XML

[Done] exited with code=0 in 0.112 seconds
```

Penjelasan :

Pada tugas ini, file jurnal7_3_2211104063.json dibaca dan fokus hanya pada bagian GlossEntry di dalam struktur JSON yang kompleks. Program mengambil data seperti ID, SortAs, GlossTerm, dan informasi lain, lalu menampilkannya ke console.