

**PRAKTIKUM KONSTRUKSI PERANGKAT LUNAK
TUGAS PENDAHULUAN 07**

Grammar-Based Input Processing Parsing



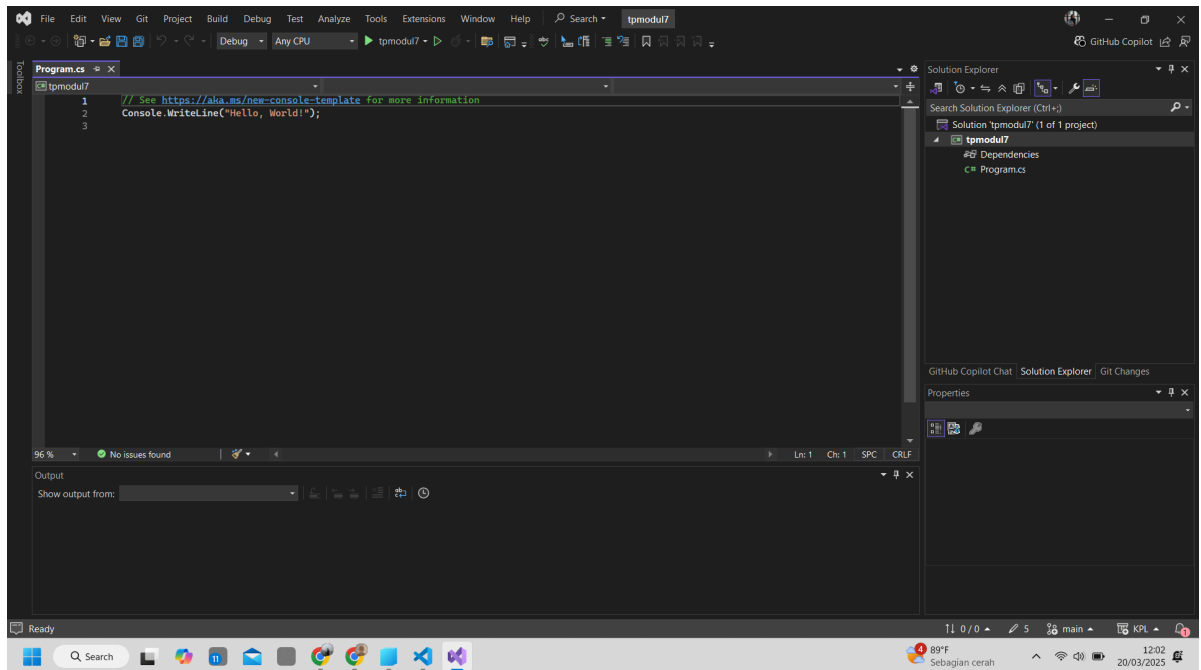
**Telkom
University**

disusun Oleh:
Nita Fitrotul Mar'ah
2211104005

SE0601

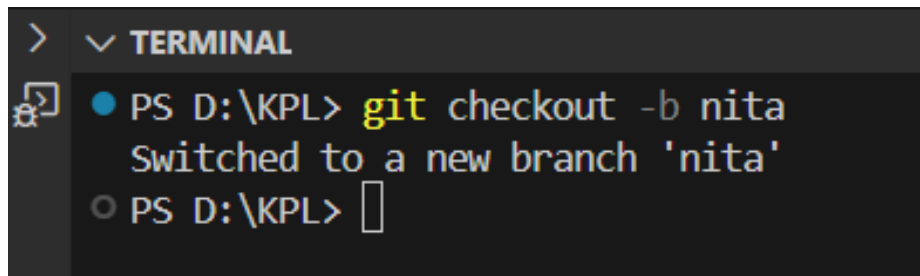
**S1 REKAYASA PERANGKAT LUNAK
FAKULTAS INFORMATIKA
TELKOM UNIVERSITY
2025**

1. Membuat Project Baru

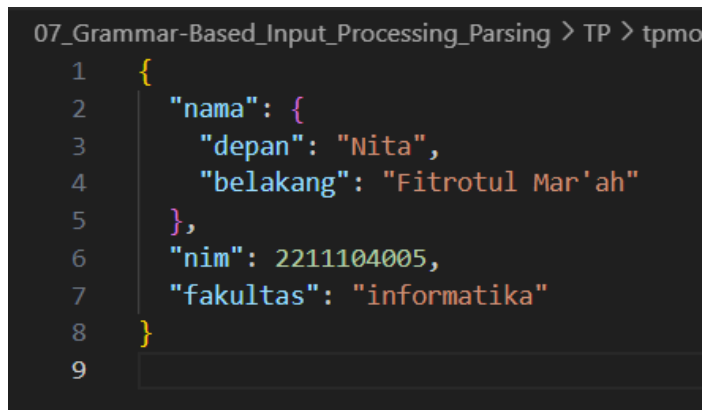


2. Menambahkan JSON Deserialization 1

- Buat branch baru untuk pengerjaan



- Download file JSON tp7_1_2211104005.json. dan Rename file menjadi tp7_1_2211104005.json dan pindahkan ke folder project. Edit file JSON. Ganti nama dengan Nita Fitrotul Mar'ah dan NIM 2211104005



- c. Buat class baru bernama DataMahasiswa2211104005.cs. Implementasi kode untuk deserialisasi JSON:

```
TP07 DataMahasiswa2211104005
1 using System;
2 using System.IO;
3 using System.Text.Json;
4
5 1 reference
6 class DataMahasiswa2211104005
7 {
8     1 reference
9     public class Nama
10    {
11        1 reference
12        public string depan { get; set; }
13        1 reference
14        public string belakang { get; set; }
15    }
16
17    2 references
18    public class Mahasiswa
19    {
20        2 references
21        public Nama nama { get; set; }
22        1 reference
23        public long nim { get; set; }
24        1 reference
25        public string fakultas { get; set; }
26    }
27
28    1 reference
29    public static void ReadJSON()
30    {
31        string filePath = "tp7_1_2211104005.json"; // Sesuaikan jika ada folder "Data/"
32        string jsonString = File.ReadAllText(filePath);
33
34        Mahasiswa mhs = JsonSerializer.Deserialize<Mahasiswa>(jsonString);
35        Console.WriteLine($"Nama {mhs.nama.depan} {mhs.nama.belakang} dengan NIM {mhs.nim} dari Fakultas {mhs.fakultas}");
36    }
37 }
```

- d. Menjalankan Method dalam Program.cs

```
1 0 references
2 class Program
3 {
4     0 references
5     static void Main()
6     {
7         DataMahasiswa2211104005.ReadJSON();
8     }
9 }
```

- e. output

```
Microsoft Visual Studio Debug Console
+ -
Nama Nita Fitrotul Mar'ah dengan NIM 2211104005 dari Fakultas informatika
```

3. Commit dan Push ke GitHub

4. Menambahkan JSON Deserialization 2

- a. Download file tp7_2_nim.json. Rename menjadi tp7_2_2211104005.json. edit dengan daftar mata kuliah semester ini:

```
1  {
2  }
3  "courses": [
4  {
5    "code": "CRI2C4",
6    "name": "Konstruksi Perangkat Lunak"
7  },
8  {
9    "code": "CRI2C5",
10   "name": "Proyek Tingkat 2"
11 },
12 {
13   "code": "CRI2C6",
14   "name": "Design Thinking"
15 },
16 {
17   "code": "CRI2C7",
18   "name": "Kecerdasan Buatan"
19 },
20 {
21   "code": "CRI2C8",
22   "name": "Praktikum Konstruksi Perangkat Lunak"
23 },
24 {
25   "code": "CRI2C9",
26   "name": "Tata Tulis Ilmiah"
27 },
28 {
29   "code": "CRI2C10",
30   "name": "Manajemen Evolusi dan Konfigurasi Perangkat Lunak"
31 }
32 ]
```

- b. Membuat Class untuk Deserialisasi

```
using System;
using System.IO;
using System.Text.Json;
using System.Collections.Generic;

0 references
class KuliahMahasiswa2211104005
{
    1 reference
    public class MataKuliah
    {
        1 reference
        public string code { get; set; }
        1 reference
        public string name { get; set; }
    }

    2 references
    public class Kuliah
    {
        1 reference
        public List<MataKuliah> courses { get; set; }
    }

    0 references
    public static void ReadJSON()
    {
        string filePath = "tp7_2_2211104005.json"; // Sesuaikan jika di folder "Data/"
        string jsonString = File.ReadAllText(filePath);

        Kuliah kuliah = JsonSerializer.Deserialize<Kuliah>(jsonString);

        Console.WriteLine("Daftar mata kuliah yang diambil:");
        int i = 1;
        foreach (var mk in kuliah.courses)
        {
            Console.WriteLine($"MK {i} {mk.code} - {mk.name}");
            i++;
        }
    }
}
```

c. Menjalankan Method dalam Program.cs

```
0 references
class Program
{
    0 references
    static void Main()
    {
        DataMahasiswa2211104005.ReadJSON();
        KuliahMahasiswa2211104005.ReadJSON();
    }
}
```

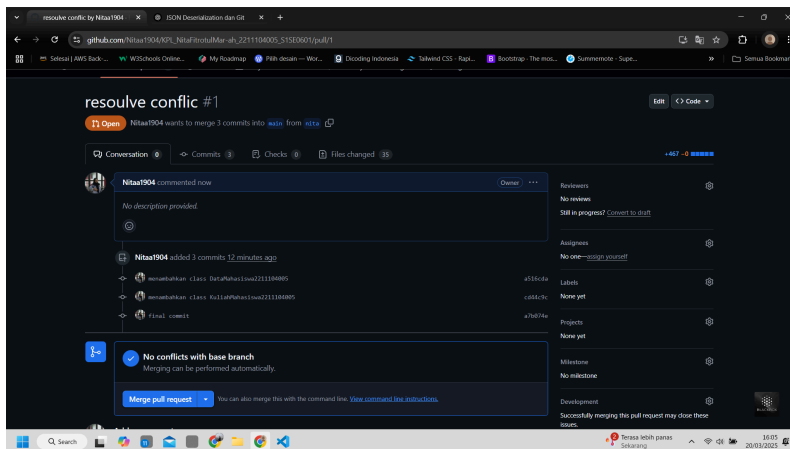
d. output

```
Microsoft Visual Studio Debug Console

Nama Nita Fitrotul Mar'ah dengan NIM 2211104005 dari Fakultas informatika
Daftar mata kuliah yang diambil:
MK 1 CRI2C4 - Konstruksi Perangkat Lunak
MK 2 CRI2C5 - Proyek Tingkat 2
MK 3 CRI2C6 - Design Thinking
MK 4 CRI2C7 - Kecerdasan Buatan
MK 5 CRI2C8 - Praktikum Konstruksi Perangkat Lunak
MK 6 CRI2C9 - Tata Tulis Ilmiah
MK 7 CRI2C10 - Manajemen Evolusi dan Konfigurasi Perangkat Lunak
```

5. Commit dan Push ke GitHub

6. Membuat Pull Request di GitHub



resolve conflict by Nitaa1904

github.com/Nitaa1904/KPL_Nitaa1904/ah_2211104005_5150001/pull/1

Setel | AWS Back... | WSchools Online... | My Readmap | Pak dosen - Wit... | Decoding Indonesia | Tailwind CSS - Rep... | Bootstrap - The mod... | Commerce - Sup... | Semua Bookmark

resolve conflict #1

Merged

Nitaa1904 merged 3 commits into [main](#) from [nitaa](#) 1 minute ago

Conversation

Comments

Checks

Files changed

+407 -0

Nitaa1904

commented 1 minute ago

Owner

...

No description provided.

Nitaa1904

added 3 commits 11 minutes ago

merge commit class FullRefactor2211104005

a151cfa

merge commit class FullRefactor2211104005

c6447c

final commit

a7b071e

Nitaa1904

merged commit [50e4212](#) into [main](#) now

Revert

Pull request successfully merged and closed

You're all set — the [nitaa](#) branch can be safely deleted.

Delete branch

Add a comment

Reviews

No reviews

Still in progress? [Convert to draft](#)

Assignees

No one — assign yourself

Labels

None yet

Projects

None yet

Milestones

No milestone

Development

Successfully merging this pull request may close these issues.

None yet

16:00

20/03/2025