

Tugas Pendahuluan Modul 9
Konstruksi Perangkat Lunak
PRODI REKAYASA PERANGKAT LUNAK

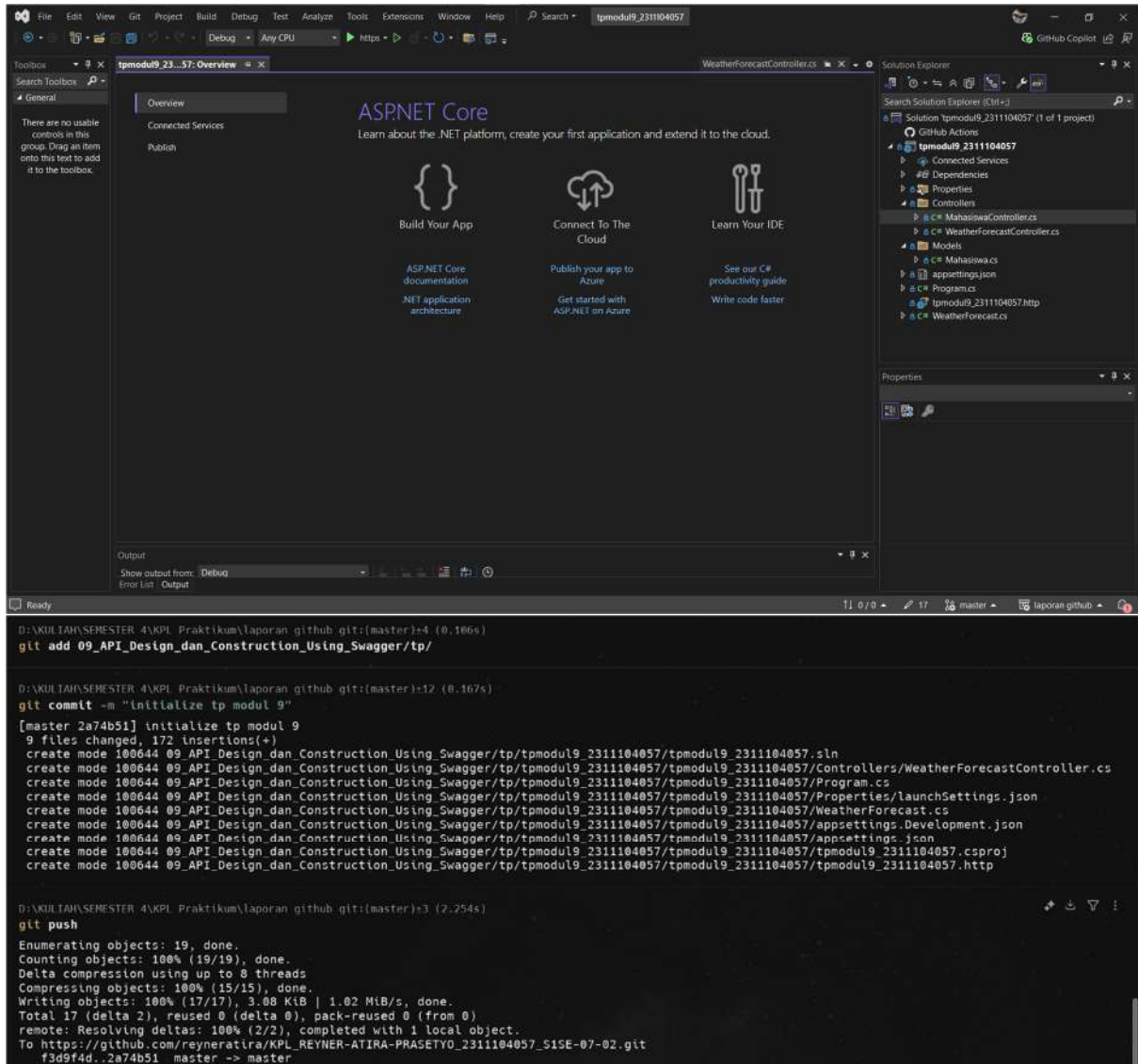


Nama :
Reyner Atira Prasetyo
2311104057
S1SE-07-02

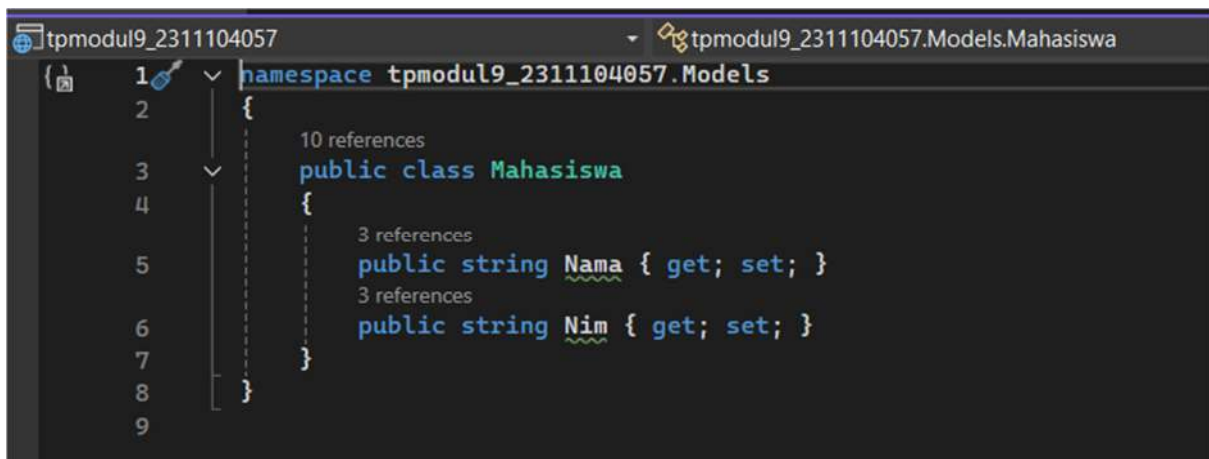
DIREKTORAT TELKOM UNIVERSITY
PURWOKERTO

Tugas Pendahuluan Modul 9

1. Initialize project dan git push



2. Membuat model Mahasiswa



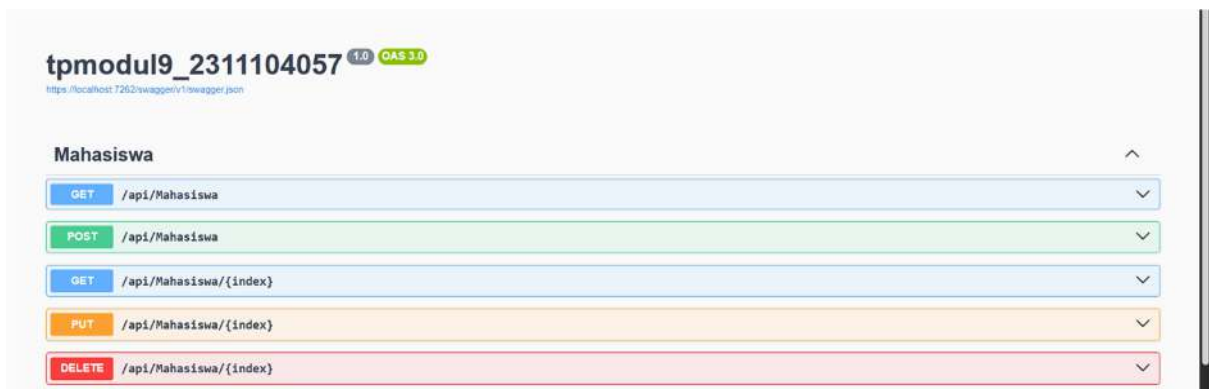
3. Membuat MahasiswaController

```

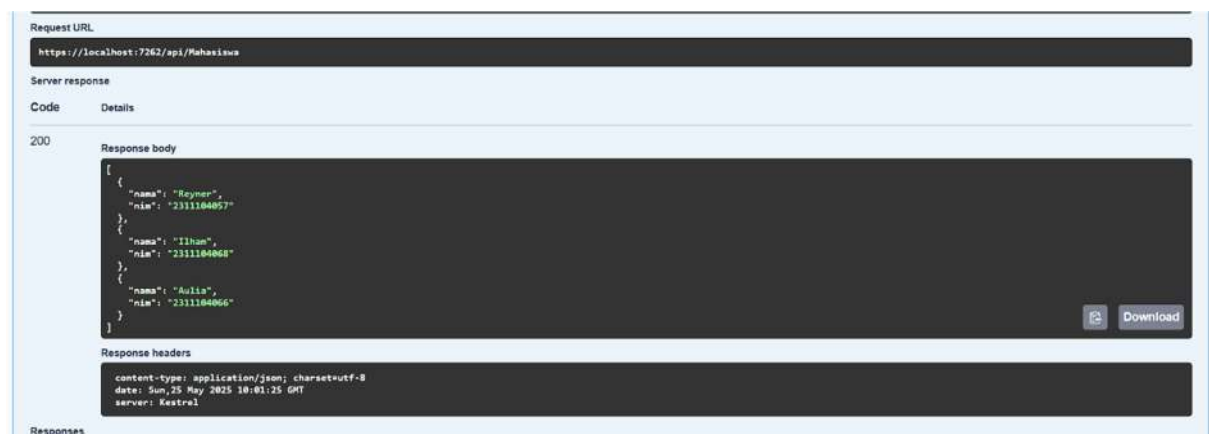
7 [Route("api/[controller]")]
8 [ApiController]
9
10 public class MahasiswaController : ControllerBase
11 {
12     private static List<Mahasiswa> daftarMahasiswa = new List<Mahasiswa>
13     {
14         new Mahasiswa { Nama = "Reyner", Nim = "2311104057" },
15         new Mahasiswa { Nama = "Ilham", Nim = "2311104068" },
16         new Mahasiswa { Nama = "Aulia", Nim = "2311104066" }
17     };
18
19     // GET: api/Mahasiswa
20     [HttpGet]
21
22     public ActionResult<IEnumerable<Mahasiswa>> GetAllMahasiswa()
23     {
24         return Ok(daftarMahasiswa);
25     }
26
27     // GET: api/Mahasiswa/{index}
28     [HttpGet("{index}")]
29
30     public ActionResult<Mahasiswa> GetMahasiswaByIndex(int index)
31     {
32         if (index < 0 || index >= daftarMahasiswa.Count)
33         {
34             return NotFound();
35         }
36         return Ok(daftarMahasiswa[index]);
37     }
38 }

```

4. Demonstrasi API



GET



POST “John Doe”

Curl

```
curl -X 'POST' \
  'https://localhost:7262/api/Mahasiswa' \
  -H 'accept: text/plain' \
  -H 'Content-Type: application/json' \
  -d '{
    "nama": "John Doe",
    "nim": "1302199999"
  }'
```

Request URL

<https://localhost:7262/api/Mahasiswa>

Server response

Code

Details

201

Undocumented

Response body

```
{
  "nama": "John Doe",
  "nim": "1302199999"
}
```

Response headers

```
content-type: application/json; charset=utf-8
date: Sun, 25 May 2025 10:04:57 GMT
location: https://localhost:7262/api/Mahasiswa/3
server: Kestrel
```

GET after POST

Code

Details

200

Response body

```
[
  {
    "nama": "Reyner",
    "nim": "2311104057"
  },
  {
    "nama": "Ilham",
    "nim": "2311104068"
  },
  {
    "nama": "Aulia",
    "nim": "2311104066"
  },
  {
    "nama": "John Doe",
    "nim": "1302199999"
  }
]
```

Response headers

```
content-type: application/json; charset=utf-8
date: Sun, 25 May 2025 10:05:30 GMT
server: Kestrel
```

GET index 0

Curl

```
curl -X 'GET' \
  'https://localhost:7262/api/Mahasiswa/0' \
  -H 'accept: text/plain'
```

Request URL

```
https://localhost:7262/api/Mahasiswa/0
```

Server response

Code	Details
200	<p>Response body</p> <pre>{ "nama": "Reyner", "nim": "2311104057" }</pre> <p>Response headers</p> <pre>content-type: application/json; charset=utf-8 date: Sun,25 May 2025 10:06:19 GMT server: Kestrel</pre>

DELETE index 0

Curl

```
curl -X 'DELETE' \
  'https://localhost:7262/api/Mahasiswa/0' \
  -H 'accept: */*'
```

Request URL

```
https://localhost:7262/api/Mahasiswa/0
```

Server response

Code	Details
204 <i>Undocumented</i>	<p>Response headers</p> <pre>date: Sun,25 May 2025 10:06:58 GMT server: Kestrel</pre>

Responses

GET after DELETE

Response body

```
[
  {
    "nama": "Ilham",
    "nim": "2311104068"
  },
  {
    "nama": "Aulia",
    "nim": "2311104066"
  },
  {
    "nama": "John Doe",
    "nim": "1302199999"
  }
]
```

Response headers

```
content-type: application/json; charset=utf-8
date: Sun, 25 May 2025 10:07:26 GMT
server: Kestrel
```

5. Push

```
D:\KULIAH\SEMESTER 4\KPL Praktikum\laporan github git:(master)*3 (0.00s)
git add 09_API_Design_dan_Construction_Using_Swagger/tp/

D:\KULIAH\SEMESTER 4\KPL Praktikum\laporan github git:(master)*5 (0.16s)
git commit -m "tp9 : menambahkan API mahasiswa"
[master 0a4a1cf] tp9 : menambahkan API mahasiswa
2 files changed, 84 insertions(+)
create mode 100644 09_API_Design_dan_Construction_Using_Swagger/tp/tpmodul9_2311104057/tpmodul9_2311104057/Controllers/MahasiswaController.cs
create mode 100644 09_API_Design_dan_Construction_Using_Swagger/tp/tpmodul9_2311104057/tpmodul9_2311104057/Models/Mahasiswa.cs

D:\KULIAH\SEMESTER 4\KPL Praktikum\laporan github git:(master)*3 (2.29s)
git push
Enumerating objects: 15, done.
Counting objects: 100% (15/15), done.
Delta compression using up to 8 threads
Compressing objects: 100% (8/8), done.
Writing objects: 100% (10/10), 1.65 KiB | 843.00 KiB/s, done.
Total 10 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/reyneraaira/KPL_REYNER-ATIRA-PRASETYO_2311104057_5ISE-07-02.git
2a74b51..0a4a1cf master -> master
```