Nama: Marvel Sanjaya Setiawan

NIM: 2311104053

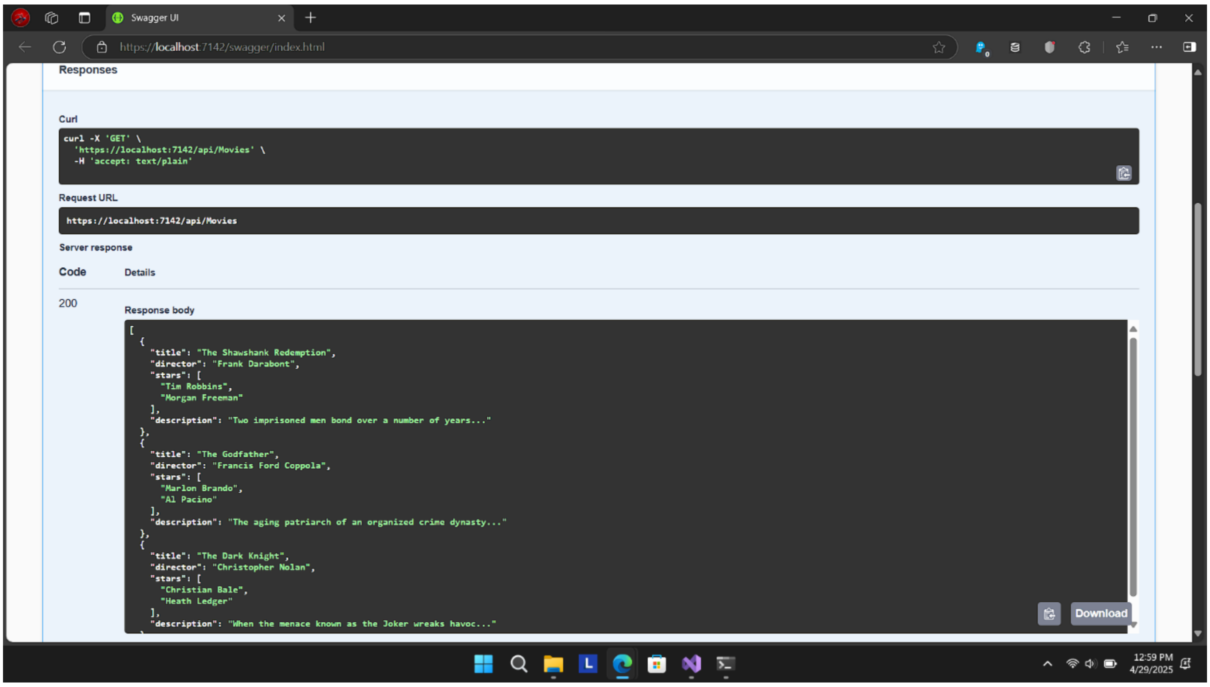
Kelas: SE07-02

JURNAL MODUL 9

Link github: https://github.com/Meph1sto14/KPL_Marvel_Sanjaya_Setiawan_2311104053_SE07-02/tree/cac931ac57a86f96c8b66056baf77009fd228b38/09_API_Design_dan_Construction_Using_Swagger/JURNAL/modul9_2311104053

Hasil run:

A. Menampilkan “GET /api/Movies”:



Curl

```
curl -X 'GET' \
  'https://localhost:7142/api/Movies' \
  -H 'accept: text/plain'
```

Request URL

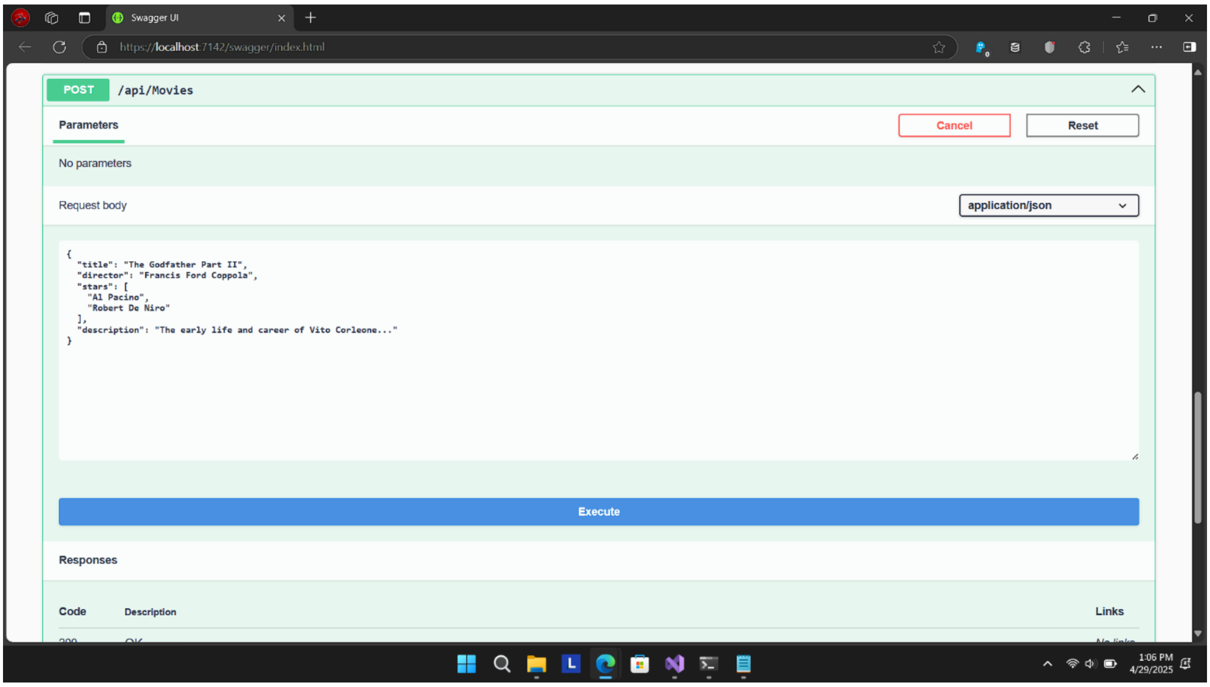
```
https://localhost:7142/api/Movies
```

Server response

Code	Details
200	Response body

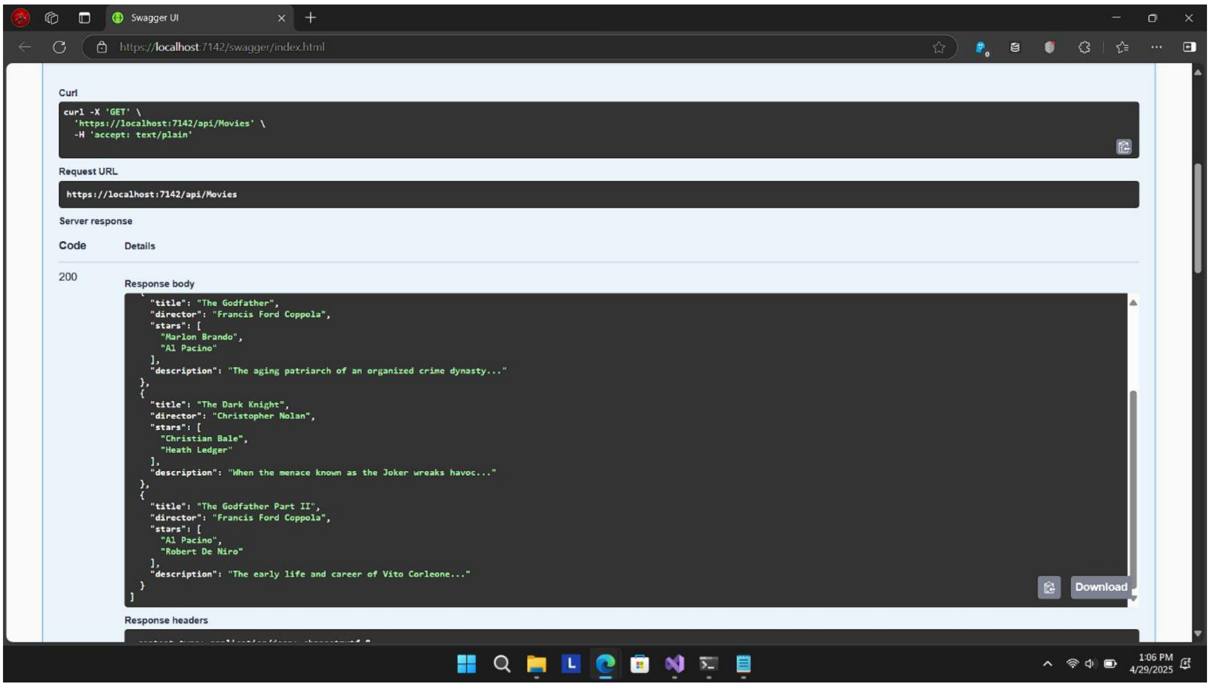
```
[
  {
    "title": "The Shawshank Redemption",
    "director": "Frank Darabont",
    "stars": [
      "Tim Robbins",
      "Morgan Freeman"
    ],
    "description": "Two imprisoned men bond over a number of years..."
  },
  {
    "title": "The Godfather",
    "director": "Francis Ford Coppola",
    "stars": [
      "Marlon Brando",
      "Al Pacino"
    ],
    "description": "The aging patriarch of an organized crime dynasty..."
  },
  {
    "title": "The Dark Knight",
    "director": "Christopher Nolan",
    "stars": [
      "Christian Bale",
      "Heath Ledger"
    ],
    "description": "When the menace known as the Joker wreaks havoc..."
```

B. Menambahkan Movie baru pada bagian “POST /api/Movies”:



```
{
  "title": "The Godfather Part II",
  "director": "Francis Ford Coppola",
  "stars": [
    "Al Pacino",
    "Robert De Niro"
  ],
  "description": "The early life and career of Vito Corleone..."
}
```

C. Mengecek list array untuk memastikan Movie yang baru telah ditambahkan:

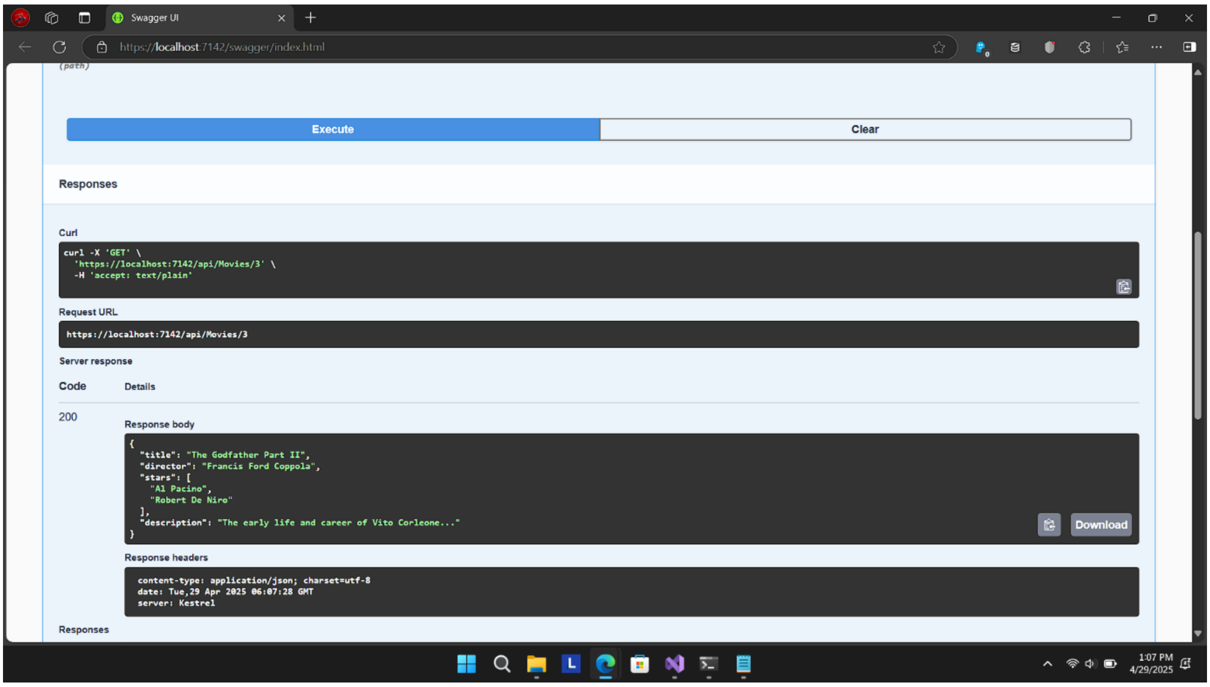


```
curl -X 'GET' \
  'https://localhost:7142/api/Movies' \
  -H 'accept: text/plain'
```

```
https://localhost:7142/api/Movies
```

```
    "title": "The Godfather",
    "director": "Francis Ford Coppola",
    "stars": [
      "Marlon Brando",
      "Al Pacino"
    ],
    "description": "The aging patriarch of an organized crime dynasty..."
  },
  {
    "title": "The Dark Knight",
    "director": "Christopher Nolan",
    "stars": [
      "Christian Bale",
      "Heath Ledger"
    ],
    "description": "When the menace known as the Joker wreaks havoc..."
  },
  {
    "title": "The Godfather Part II",
    "director": "Francis Ford Coppola",
    "stars": [
      "Al Pacino",
      "Robert De Niro"
    ],
    "description": "The early life and career of Vito Corleone..."
  }
]
```

D. Mencoba menginput dan menampilkan Movie dengan indeks 3, “GET /api/Movies/3”:



Responses

Curl

```
curl -X 'GET' \
  'https://localhost:7142/api/Movies/3' \
  -H 'accept: text/plain'
```

Request URL

```
https://localhost:7142/api/Movies/3
```

Server response

Code Details

200

Response body

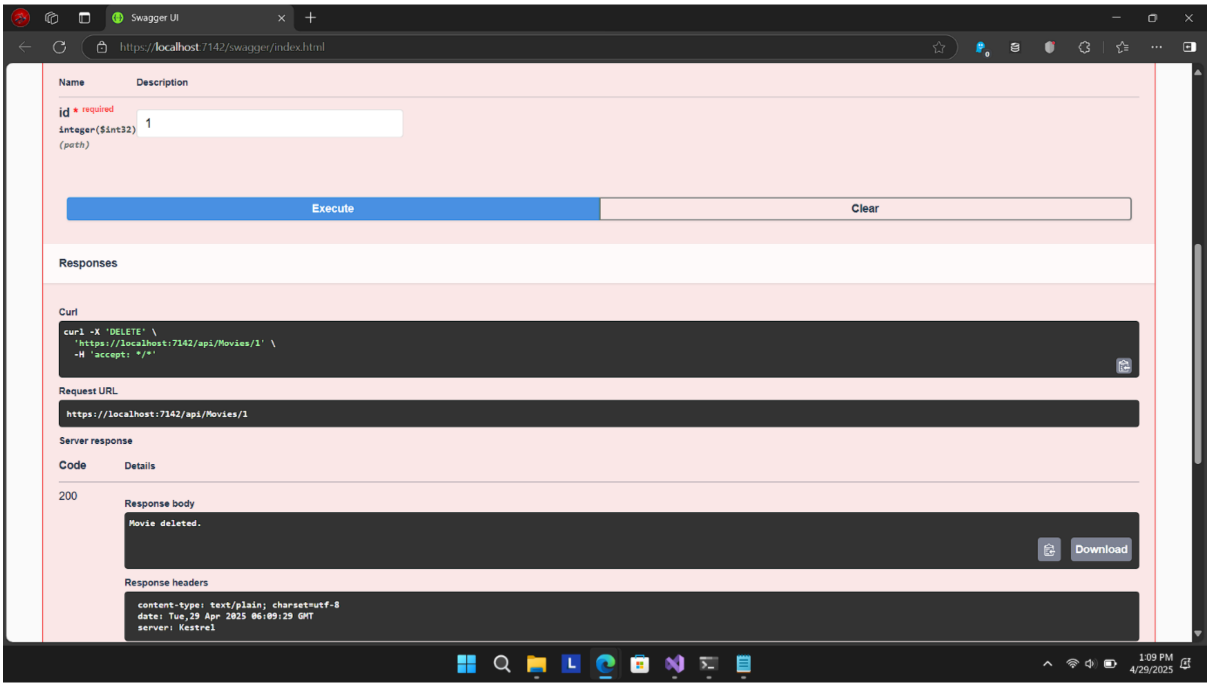
```
{
  "title": "The Godfather Part II",
  "director": "Francis Ford Coppola",
  "stars": [
    "Al Pacino",
    "Robert De Niro"
  ],
  "description": "The early life and career of Vito Corleone..."
}
```

Response headers

```
 content-type: application/json; charset=utf-8
 date: Tue,29 Apr 2025 06:07:28 GMT
 server: Kestrel
```

Responses

E. Menghapus objek Movie dengan index ke-1 dengan “DELETE /api/Movies/1”:



Name Description

id * required
integer($int32)
(path)
1

Responses

Curl

```
curl -X 'DELETE' \
  'https://localhost:7142/api/Movies/1' \
  -H 'accept: */*'
```

Request URL

```
https://localhost:7142/api/Movies/1
```

Server response

Code Details

200

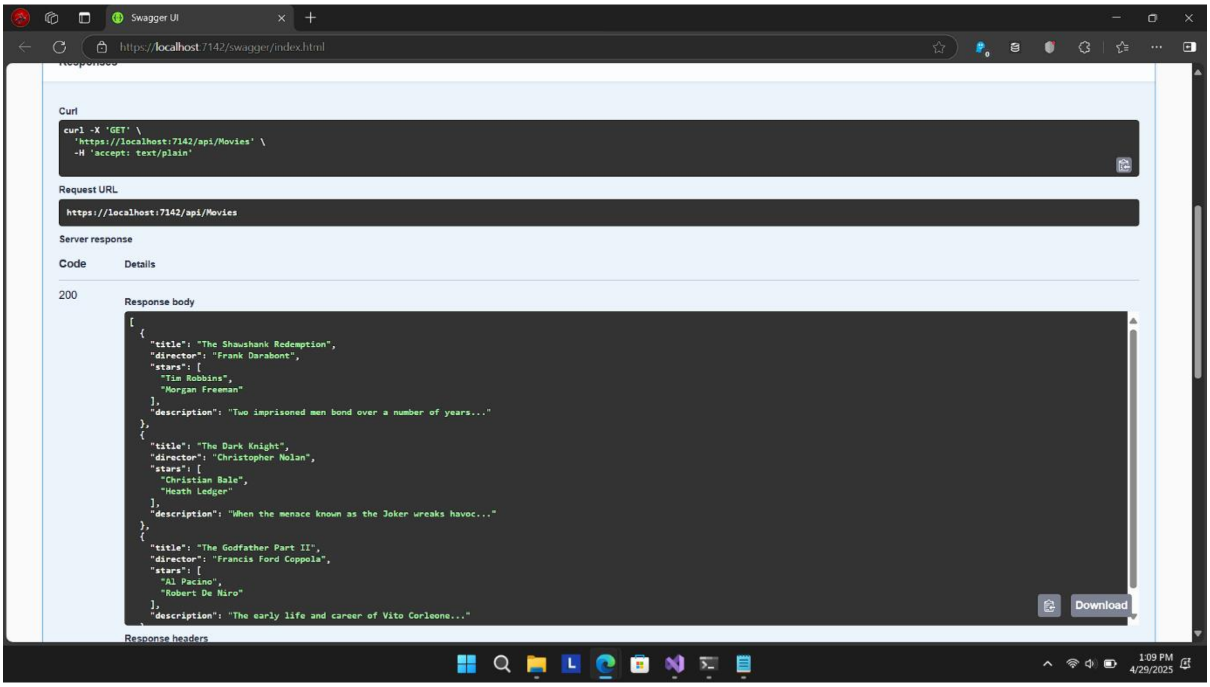
Response body

```
Movie deleted.
```

Response headers

```
 content-type: text/plain; charset=utf-8
 date: Tue,29 Apr 2025 06:09:29 GMT
 server: Kestrel
```

F. Mengecek list/array dari semua Movie dengan “GET /api/Movies”, film dengan ranking kedua “Godfather” sudah tidak ada di list:



Curl

```
curl -X 'GET' \
  'https://localhost:7142/api/Movies' \
  -H 'accept: text/plain'
```

Request URL

```
https://localhost:7142/api/Movies
```

Server response

Code Details

200 Response body

```
[
  {
    "title": "The Shawshank Redemption",
    "director": "Frank Darabont",
    "stars": [
      "Tim Robbins",
      "Morgan Freeman"
    ],
    "description": "Two imprisoned men bond over a number of years..."
  },
  {
    "title": "The Dark Knight",
    "director": "Christopher Nolan",
    "stars": [
      "Christian Bale",
      "Heath Ledger"
    ],
    "description": "When the menace known as the Joker wreaks havoc..."
  },
  {
    "title": "The Godfather Part II",
    "director": "Francis Ford Coppola",
    "stars": [
      "Al Pacino",
      "Robert De Niro"
    ],
    "description": "The early life and career of Vito Corleone..."
```

Response headers

MoviesController.cs

```
using Microsoft.AspNetCore.Mvc;
using modul9_2311104053.Models;

namespace modul9_2311104053.Controllers
{
    [ApiController]
    [Route("api/[controller]")]
    public class MoviesController : ControllerBase
    {
        private static List<Movie> movies = new List<Movie>
        {
            new Movie
            {
                Title = "The Shawshank Redemption",
                Director = "Frank Darabont",
                Stars = new List<string> { "Tim Robbins", "Morgan Freeman" },
                Description = "Two imprisoned men bond over a number of years..."
            },
            new Movie
            {
                Title = "The Godfather",
                Director = "Francis Ford Coppola",
                Stars = new List<string> { "Marlon Brando", "Al Pacino" },
                Description = "The aging patriarch of an organized crime dynasty..."
            },
            new Movie
            {
                Title = "The Dark Knight",
                Director = "Christopher Nolan",
                Stars = new List<string> { "Christian Bale", "Heath Ledger" },
                Description = "When the menace known as the Joker wreaks havoc..."
            }
        };

        [HttpGet]
        public ActionResult<IEnumerable<Movie>> GetAllMovies()
        {
            return Ok(movies);
        }

        [HttpGet("{id}")]
        public ActionResult<Movie> GetMovieById(int id)
        {
            if (id < 0 || id >= movies.Count)
                return NotFound("Movie not found.");
            return Ok(movies[id]);
        }

        [HttpPost]
        public ActionResult AddMovie([FromBody] Movie newMovie)
        {
            movies.Add(newMovie);
            return Ok("Movie added.");
        }

        [HttpDelete("{id}")]
        public ActionResult DeleteMovie(int id)
        {
            if (id < 0 || id >= movies.Count)
                return NotFound("Movie not found.");
            movies.RemoveAt(id);
            return Ok("Movie deleted.");
        }
    }
}

```

Movie.cs

```
namespace modul9_2311104053.Models
{
    public class Movie
    {
        public string Title { get; set; }
        public string Director { get; set; }
        public List<string> Stars { get; set; }
        public string Description { get; set; }

        public Movie() { }
    }
}

```

Penjelasan codingan:

1. MoviesController.cs
    - REST API berbasis ASP.NET Core untuk mengelola data film.
    - Kelas Movie menyimpan data film (Title, Director, Stars, Description).
    - Diinisialisasi awal dengan 3 film: The Shawshank Redemption, The Godfather, dan The Dark Knight.
    - List statis movies menyimpan data awal film sebelum API menerima input tambahan.

2. Endpoint API:
    - GET /api/movies → Mengembalikan daftar seluruh film.
    - GET /api/movies/{id} → Mengambil data film berdasarkan indeks dalam daftar.
    - POST /api/movies → Menambahkan film baru ke daftar.
    - DELETE /api/movies/{id} → Menghapus film berdasarkan indeks.

3. Movie.cs
    - Model Movie digunakan untuk merepresentasikan data film dengan properti Title, Director, Stars, dan Description.