

Haza Zaidan Zidna Fann

2311104056

SISE0702

Tpmodul6

https://github.com/hazazaidan/KPL_Haza_Zaidan_Zidna_Fann_2311104056_SISE0702/tree/main

MENAMBAHKAN KODE AWAL SAYATUBEVIDEO

```
1 using System;
2
3 public class SayaTubeVideo
4 {
5     private int id;
6     private string title;
7     private int playCount;
8
9     public SayaTubeVideo(string title)
10    {
11        Random random = new Random();
12        this.id = random.Next(10000, 99999);
13        this.title = title;
14        this.playCount = 0;
15    }
16
17    public void IncreasePlayCount(int count)
18    {
19        playCount += count;
20    }
21
22    public void PrintVideoDetails()
23    {
24        Console.WriteLine($"ID: {id}");
25        Console.WriteLine($"Title: {title}");
26        Console.WriteLine($"Play Count: {playCount}");
27    }
28 }
29
30 class Program
31 {
32     static void Main()
33     {
34         SayaTubeVideo video = new SayaTubeVideo("Tutorial Design By Contract - [Haza Zaidan Zidna Fann]");
35         video.PrintVideoDetails();
36     }
37 }
38
```

Microsoft Visual Studio Debu × + ▾

ID: 62422
Title: Tutorial Design By Contract - Haza Zaidan Zidna Fann
Play Count: 0

Kelas SayaTubeVideo

- Variabel privat:

- id → Menyimpan ID unik video (random antara 10000 - 99999).
- title → Menyimpan judul video.
- playCount → Menyimpan jumlah pemutaran video.
- **Konstruktor SayaTubeVideo(string title):**
 - Menginisialisasi id dengan angka acak.
 - Menetapkan title berdasarkan parameter input.
 - Mengatur playCount ke **0** saat pertama kali dibuat.
- **Method IncreasePlayCount(int count):**
 - Menambah nilai playCount berdasarkan parameter count.
- **Method PrintVideoDetails():**
 - Menampilkan informasi **ID, Title, dan Play Count** ke **console**.

2. Kelas Program (Fungsi Main())

- Membuat **objek SayaTubeVideo** dengan judul "Tutorial Design By Contract - [Haza Zaidan Zidna Fann]".
- Memanggil **PrintVideoDetails()** untuk mencetak informasi video ke layar.

```

1 using System;
2 using System.Diagnostics;
3
4 public class SayaTubeVideo
5 {
6     private int id;
7     private string title;
8     private int playCount;
9
10    public SayaTubeVideo(string title)
11    {
12        Debug.Assert(!string.IsNullOrEmpty(title) && title.Length <= 100, "Judul video tidak boleh kosong dan maksimal 100 karakter.");
13
14        Random random = new Random();
15        this.id = random.Next(10000, 99999);
16        this.title = title;
17        this.playCount = 0;
18    }
19
20    public void IncreasePlayCount(int count)
21    {
22        if (count <= 0 || count > 100000000)
23        {
24            throw new ArgumentException("Input play count harus antara 1 hingga 10.000.000.");
25        }
26
27        try
28        {
29            checked
30            {
31                playCount += count;
32            }
33        }
34        catch (OverflowException)
35        {
36            Console.WriteLine("ERROR: Play count melebihi batas integer.");
37        }
38    }
39
40    public void PrintVideoDetails()
41    {
42        Console.WriteLine($"ID: {id}");
43        Console.WriteLine($"Title: {title}");
44        Console.WriteLine($"Play Count: {playCount}");
45    }
46 }
47
48 class Program
49 {
50     static void Main()
51     {
52         SayaTubeVideo video = new SayaTubeVideo("Tutorial Design By Contract - Haza Zaidan Zidna Fann");
53
54         try
55         {
56             for (int i = 0; i < 100; i++)
57             {
58                 video.IncreasePlayCount(1000000);
59             }
60         }
61         catch (ArgumentException ex)
62         {
63             Console.WriteLine($"ERROR: {ex.Message}");
64         }
65
66         video.PrintVideoDetails();
67     }
68 }

```

```

ID: 92364
Title: Tutorial Design By Contract - Haza Zaidan Zidna Fann
Play Count: 100000000

C:\Users\haza\source\repos\TPmodul6_2311104056\TPmodul6_2311104056\bin\Debug\net8.0\TPmodul6_2311104056.exe (process 235
20) exited with code 0 (0x0).
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the conso
le when debugging stops.
Press any key to close this window . . .|

```

Kelas SayaTubeVideo

Variabel privat:

- id → Menyimpan ID unik video (acak antara 10000 - 99999).
- title → Menyimpan judul video.
- playCount → Menyimpan jumlah pemutaran video.

Konstruktor SayaTubeVideo(string title)

- **Debug.Assert** memastikan judul tidak kosong dan maksimal **100 karakter**.
- **ID video** dibuat acak.
- **Play count** diinisialisasi ke **0**.

Method IncreasePlayCount(int count)

- **Validasi input:**
 - Harus antara **1 hingga 10.000.000**, jika tidak, akan dilempar **ArgumentException**.
- **Cek overflow integer:**
 - **Blok checked** memastikan playCount tidak melebihi batas int.
 - Jika terjadi **OverflowException**, akan ditampilkan pesan error.

Method PrintVideoDetails()

- Menampilkan **ID, judul, dan play count** ke console.
-

2. Kelas Program (Fungsi Main())

- Membuat objek **SayaTubeVideo** dengan judul tertentu.
- **Loop sebanyak 10 kali**, menambah playCount sebanyak **10.000.000** per iterasi.
 - **Try-catch** menangani error dari **ArgumentException**.
- **Menampilkan detail video** setelah update playCount.