

Nama : Dimastian Aji Wibowo

NIM : 2311104058

JURNAL MODUL 14

Before

SayaTubeUser.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace modul6_2311104058
{
    class SayaTubeUser
    {
        private int id;
        private List<SayaTubeVideo> uploadedVideos;
        public string Username { get; private set; }

        public SayaTubeUser(string username)
        {
            if (string.IsNullOrEmpty(username)) throw new ArgumentException("Username tidak boleh null atau kosong");
            if (username.Length > 100) throw new ArgumentException("Username tidak boleh lebih dari 100 karakter");

            Random random = new Random();
            this.id = random.Next(10000, 99999);
            this.Username = username;
            this.uploadedVideos = new List<SayaTubeVideo>();
        }

        public void AddVideo(SayaTubeVideo video)
        {
            if (video == null) throw new ArgumentNullException("Video tidak boleh null");
            if (video.GetPlayCount() >= int.MaxValue) throw new ArgumentException("Play count video melebihi batas integer");
            uploadedVideos.Add(video);
        }

        public int GetTotalVideoPlayCount()
        {
            int totalPlayCount = 0;
            foreach (var video in uploadedVideos)
            {
                totalPlayCount += video.GetPlayCount();
            }
            return totalPlayCount;
        }

        public void PrintAllVideoPlaycount()
        {
            Console.WriteLine($"User: {Username}");
            int index = 1;
            foreach (var video in uploadedVideos)
            {
                if (index > 8) break;
                Console.WriteLine($"Video {index} judul: {video.GetTitle()}");
                index++;
            }
        }
    }
}
```

SayaTubeVideo.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
```

```

namespace modul6_2311104058
{
    class SayaTubeVideo
    {
        private int id;
        private string title;
        private int playCount;

        public SayaTubeVideo(string title)
        {
            if (string.IsNullOrEmpty(title)) throw new ArgumentException("Judul video tidak boleh null atau kosong");
            if (title.Length > 200) throw new ArgumentException("Judul video tidak boleh lebih dari 200 karakter");

            Random random = new Random();
            this.id = random.Next(10000, 99999);
            this.title = title;
            this.playCount = 0;
        }

        public void IncreasePlayCount(int count)
        {
            if (count < 0 || count > 25000000) throw new ArgumentException("Play count harus antara 0 dan 25.000.000");
            checked
            {
                try
                {
                    playCount += count;
                }
                catch (OverflowException)
                {
                    Console.WriteLine("Error: Play count melebihi batas maksimum integer!");
                }
            }
        }

        public void PrintVideoDetails()
        {
            Console.WriteLine($"Video ID: {id}");
            Console.WriteLine($"Title: {title}");
            Console.WriteLine($"Play Count: {playCount}");
        }

        public int GetPlayCount()
        {
            return playCount;
        }

        public string GetTitle()
        {
            return title;
        }
    }
}

```

Program.cs

```

using modul6_2311104058;

class Program
{
    static void Main()
    {
        try
        {
            Console.Write("Masukkan username: ");
            string username = Console.ReadLine();
            SayaTubeUser user = new SayaTubeUser(username);

            List<string> filmTitles = new List<string>();
            for (int i = 0; i < 10; i++)
            {
                Console.Write($"Masukkan judul film ke-{i + 1}: ");
                string filmTitle = Console.ReadLine();
                filmTitles.Add($"Review Film {filmTitle} oleh {username}");
            }

            foreach (string title in filmTitles)
            {
                SayaTubeVideo video = new SayaTubeVideo(title);
                user.AddVideo(video);
            }
        }
    }
}

```

```

    }

    user.PrintAllVideoPlaycount();
}
catch (Exception ex)
{
    Console.WriteLine($"Terjadi kesalahan: {ex.Message}");
}
}
}

```

After

SayaTubeUser.cs

```

using System;
using System.Collections.Generic;

namespace modul6_2311104058
{
    class SayaTubeUser
    {
        private int id;
        private List<SayaTubeVideo> uploadedVideos;

        public string Username { get; private set; }

        // Konstruktor dengan validasi username
        public SayaTubeUser(string username)
        {
            if (string.IsNullOrEmpty(username))
                throw new ArgumentException("Username tidak boleh null atau kosong");

            if (username.Length > 100)
                throw new ArgumentException("Username tidak boleh lebih dari 100 karakter");

            Random random = new Random();
            this.id = random.Next(10000, 99999);
            this.Username = username;
            this.uploadedVideos = new List<SayaTubeVideo>();
        }

        // Menambahkan video ke daftar video user
        public void AddVideo(SayaTubeVideo video)
        {
            if (video == null)
                throw new ArgumentNullException("Video tidak boleh null");

            if (video.GetPlayCount() >= int.MaxValue)
                throw new ArgumentException("Play count video melebihi batas integer");

            uploadedVideos.Add(video);
        }

        // Mengembalikan total play count dari semua video
        public int GetTotalVideoPlayCount()
        {
            int totalPlayCount = 0;

            foreach (var video in uploadedVideos)
            {
                totalPlayCount += video.GetPlayCount();
            }

            return totalPlayCount;
        }

        // Menampilkan maksimal 8 video milik user
        public void PrintAllVideoPlaycount()
        {
            Console.WriteLine($"User: {Username}");

            for (int i = 0; i < uploadedVideos.Count && i < 8; i++)
            {
                Console.WriteLine($"Video {i + 1} judul: {uploadedVideos[i].GetTitle()}");
            }
        }
    }
}

```

SayaTubeVideo.cs

```
using System;

namespace modul6_2311104058
{
    class SayaTubeVideo
    {
        private int id;
        private string title;
        private int playCount;

        // Konstruktor dengan validasi judul video
        public SayaTubeVideo(string title)
        {
            if (string.IsNullOrEmpty(title))
                throw new ArgumentException("Judul video tidak boleh null atau kosong");

            if (title.Length > 200)
                throw new ArgumentException("Judul video tidak boleh lebih dari 200 karakter");

            Random random = new Random();
            this.id = random.Next(10000, 99999);
            this.title = title;
            this.playCount = 0;
        }

        // Menambah jumlah play count video
        public void IncreasePlayCount(int count)
        {
            if (count < 0 || count > 25000000)
                throw new ArgumentException("Play count harus antara 0 dan 25.000.000");

            try
            {
                checked
                {
                    playCount += count;
                }
            }
            catch (OverflowException)
            {
                Console.WriteLine("Error: Play count melebihi batas maksimum integer!");
            }
        }

        // Menampilkan detail video
        public void PrintVideoDetails()
        {
            Console.WriteLine($"Video ID: {id}");
            Console.WriteLine($"Title: {title}");
            Console.WriteLine($"Play Count: {playCount}");
        }

        // Getter untuk play count
        public int GetPlayCount()
        {
            return playCount;
        }

        // Getter untuk judul
        public string GetTitle()
        {
            return title;
        }
    }
}
```

Program.cs

```
using modul6_2311104058;

class Program
{
    static void Main()
    {
        try
        {
            Console.Write("Masukkan username: ");
            string username = Console.ReadLine();
        }
    }
}
```

```
SayaTubeUser user = new SayaTubeUser(username);
List<string> filmTitles = new List<string>();

// Input 10 judul film dari pengguna
for (int i = 0; i < 10; i++)
{
    Console.Write($"Masukkan judul film ke-{i + 1}: ");
    string filmTitle = Console.ReadLine();
    filmTitles.Add($"Review Film {filmTitle} oleh {username}");
}

// Tambahkan semua video ke user
foreach (string title in filmTitles)
{
    SayaTubeVideo video = new SayaTubeVideo(title);
    user.AddVideo(video);
}

// Tampilkan daftar video
user.PrintAllVideoPlaycount();
}
catch (Exception ex)
{
    Console.WriteLine($"Terjadi kesalahan: {ex.Message}");
}
}
```