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JURNAL MODUL 6 KONSTRUKSI PERANGKAT LUNAK

✓ SayaTubeVideo.cs

```
1  using System;
2  using System.Collections.Generic;
3
4  namespace modul6_2311104071
5  {
6      class SayaTubeUser
7      {
8          private int id;
9          private string username;
10         private List<SayaTubeVideo> uploadedVideos;
11
12         public SayaTubeUser(string username)
13         {
14             if (string.IsNullOrEmpty(username) || username.Length > 100)
15                 throw new ArgumentException("Username tidak boleh kosong dan maksimal 100 karakter.");
16
17             Random random = new Random();
18             this.id = random.Next(10000, 99999);
19             this.username = username;
20             this.uploadedVideos = new List<SayaTubeVideo>();
21         }
22
23         public void AddVideo(SayaTubeVideo video)
24         {
25             if (video == null)
26                 throw new ArgumentNullException("Video tidak boleh null.");
27
28             uploadedVideos.Add(video);
29         }
30
31         public int GetTotalVideoPlayCount()
32         {
33             int total = 0;
34             foreach (var video in uploadedVideos)
35             {
36                 total += video.GetPlayCount();
37             }
38             return total;
39         }
40
41         public void PrintAllVideoPlaycount()
42         {
43             Console.WriteLine($"User: {username}");
44             Console.WriteLine("Daftar Video:");
45
46             for (int i = 0; i < Math.Min(uploadedVideos.Count, 8); i++)
47             {
48                 Console.WriteLine($"[{i + 1}] {uploadedVideos[i].GetTitle()} - Play Count: {uploadedVideos[i].GetPlayCount()}");
49             }
50         }
51     }
52 }
53
```

✓ SayaTubeUser.cs

```
1 using System;
2 using System.Collections.Generic;
3
4 namespace modul6_2311104071
5 {
6     class SayaTubeUser
7     {
8         private int id;
9         private string username;
10        private List<SayaTubeVideo> uploadedVideos;
11
12        public SayaTubeUser(string username)
13        {
14            if (string.IsNullOrEmpty(username) || username.Length > 100)
15                throw new ArgumentException("Username tidak boleh kosong dan maksimal 100 karakter.");
16
17            Random random = new Random();
18            this.id = random.Next(10000, 99999);
19            this.username = username;
20            this.uploadedVideos = new List<SayaTubeVideo>();
21        }
22
23        public void AddVideo(SayaTubeVideo video)
24        {
25            if (video == null)
26                throw new ArgumentNullException("Video tidak boleh null.");
27
28            uploadedVideos.Add(video);
29        }
30
31        public int GetTotalVideoPlayCount()
32        {
33            int total = 0;
34            foreach (var video in uploadedVideos)
35            {
36                total += video.GetPlayCount();
37            }
38            return total;
39        }
40
41        public void PrintAllVideoPlaycount()
42        {
43            Console.WriteLine($"User: {username}");
44            Console.WriteLine("Daftar Video:");
45
46            for (int i = 0; i < Math.Min(uploadedVideos.Count, 8); i++)
47            {
48                Console.WriteLine($"[{i + 1}] {uploadedVideos[i].GetTitle()} - Play Count: {uploadedVideos[i].GetPlayCount()}");
49            }
50        }
51    }
52 }
53
```

✓ Program.cs

```
1  using System;
2  using System.Collections.Generic;
3
4  namespace modul6_2311104071
5  {
6      class Program
7      {
8          static void Main(string[] args)
9          {
10              SayaTubeUser user = new SayaTubeUser("Ammar Dzaki Nandana ");
11
12              List<string> videoTitles = new List<string>
13              {
14                  "The Dark Knight",
15                  "Inception",
16                  "Interstellar",
17                  "Avengers: Endgame",
18                  "The Matrix",
19                  "Spider-Man: No Way Home",
20                  "Parasite",
21                  "Joker",
22                  "Tenet",
23                  "The Shawshank Redemption"
24              };
25
26              List<SayaTubeVideo> videos = new List<SayaTubeVideo>();
27              foreach (var title in videoTitles)
28              {
29                  videos.Add(new SayaTubeVideo(title));
30              }
31
32              for (int i = 0; i < 10; i++)
33              {
34                  user.AddVideo(videos[i]);
35              }
36
37              int[] playCounts = { 4100000, 7000000, 4600000, 6200000, 5300000, 3700000, 4800000, 8300000 };
38              for (int i = 0; i < playCounts.Length; i++)
39              {
40                  videos[i].IncreasePlayCount(playCounts[i]);
41              }
42
43              user.PrintAllVideoPlaycount();
44
45              Console.WriteLine("\nTesting IncreasePlayCount...");
46              SayaTubeVideo testVideo = new SayaTubeVideo("Test Video");
47              testVideo.IncreasePlayCount(11500000);
48              testVideo.PrintVideoDetails();
49
50              Console.WriteLine("\nTesting Overflow...");
51              try
52              {
53                  testVideo.IncreasePlayCount(26000000);
54              }
55              catch (Exception ex)
56              {
57                  Console.WriteLine($"Exception caught: {ex.Message}");
58              }
59
60              Console.ReadKey();
61          }
62      }
63  }
64
```