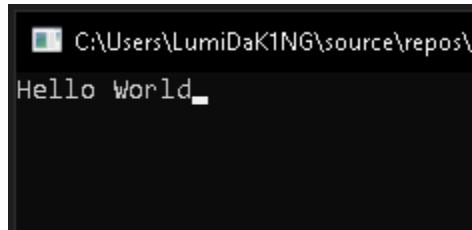


# Guru99

## - C# Hello World

```
using System;

namespace ex1
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Hello World");
            Console.ReadKey();
        }
    }
}
```

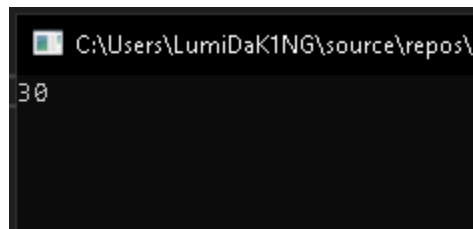


- C# Data Types

```
using System;

namespace ex2
{
    class Program
    {
        static void Main(string[] args)
        {
            Int32 num = 30;
            Console.Write(num);

            Console.ReadKey();
        }
    }
}
```

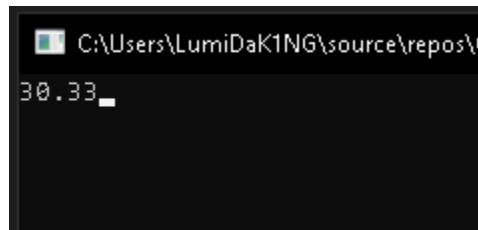


- C# Data Types

```
using System;

namespace ex3
{
    class Program
    {
        static void Main(string[] args)
        {
            double num = 30.33;
            Console.Write(num);

            Console.ReadKey();
        }
    }
}
```



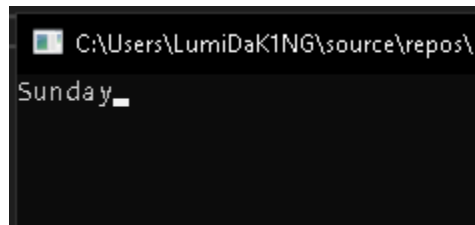
- C# Enum

```
using System;

namespace ex4
{
    class Program
    {
        enum Days { Monday, Tuesday, Wednesday, Thursday, Friday, Saturday,
Sunday };

        static void Main(string[] args)
        {
            Console.Write(Days.Sunday);

            Console.ReadKey();
        }
    }
}
```

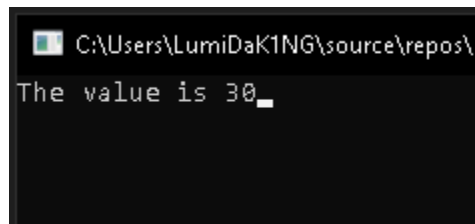


- C# Variables operator

```
using System;

namespace ex5
{
    class Program
    {
        static void Main(string[] args)
        {
            String message = "The value is ";
            Int32 val = 30;

            Console.Write(message + val);
            Console.ReadKey();
        }
    }
}
```

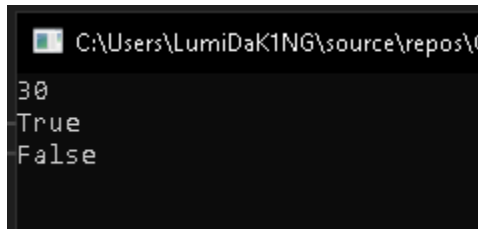


- C# Variables operator

```
using System;

namespace ex6
{
    class Program
    {
        static void Main(string[] args)
        {
            Int32 val1 = 10, val2 = 20;
            bool status = true;

            Console.WriteLine(val1 + val2);
            Console.WriteLine(val1 < val2);
            Console.WriteLine(!(status));
            Console.ReadKey();
        }
    }
}
```



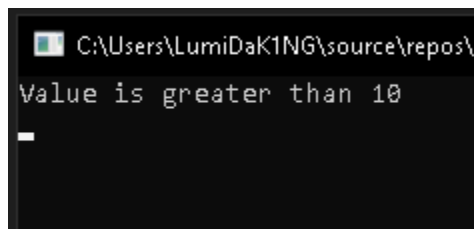
A screenshot of a Windows command prompt window. The title bar shows the file path "C:\Users\LumiDaK1NG\source\repos\...". The console output displays three lines: "30", "True", and "False", which correspond to the results of the operations performed in the C# code above.

- C# Conditional Statements

```
using System;

namespace ex7
{
    class Program
    {
        static void Main(string[] args)
        {
            Int32 value = 11;

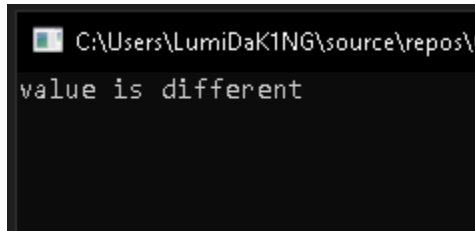
            if (value < 10)
            {
                Console.WriteLine("Value is less than 10");
            }
            else
            {
                Console.WriteLine("Value is greater than 10");
            }
            Console.ReadKey();
        }
    }
}
```



- C# Conditional Statements

```
using System;

namespace ex8
{
    class Program
    {
        static void Main(string[] args)
        {
            Int32 value = 11;
            switch (value)
            {
                case 1:
                    Console.WriteLine("Value is 1");
                    break;
                case 2:
                    Console.WriteLine("Value is 2");
                    break;
                default:
                    Console.WriteLine("value is different");
                    break;
            }
        }
    }
}
```





- C# Conditional Statements

```
using System;

namespace ex9
{
    class Program
    {
        static void Main(string[] args)
        {
            Int32 value = 5, i = 0;

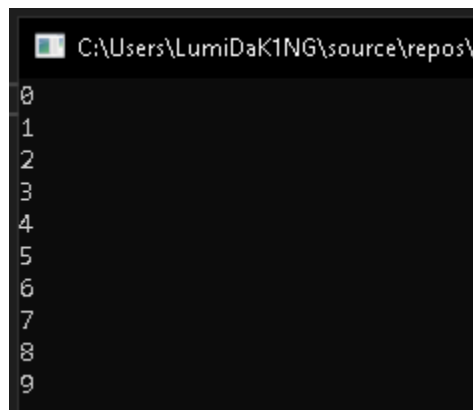
            while (i < value)
            {
                Console.WriteLine(i);
                i = i + 1;
            }
            Console.ReadKey();
        }
    }
}
```



- C# Conditional Statements

```
using System;

namespace ex10
{
    class Program
    {
        static void Main(string[] args)
        {
            for (Int32 i = 0; i < 10; i++)
            {
                Console.WriteLine(i);
            }
            Console.ReadKey();
        }
    }
}
```



- C# Arrays

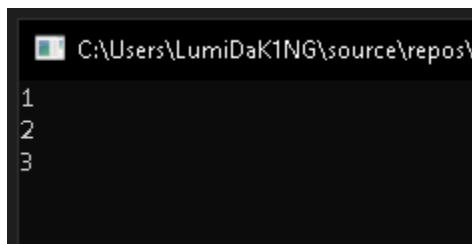
```
using System;

namespace ex11
{
    class Program
    {
        static void Main(string[] args)
        {
            Int32[] vlera;
            vlera = new Int32[3];

            vlera[0] = 1;
            vlera[1] = 2;
            vlera[2] = 3;

            Console.WriteLine(vlera[0]);
            Console.WriteLine(vlera[1]);
            Console.WriteLine(vlera[2]);

            Console.ReadKey();
        }
    }
}
```



- C# Class and Object

```
using System;

namespace ex12
{
    class Tutorial
    {
        int TutorialID;
        string TutorialName;

        public void SetTutorial(int pID, string pName)
        {
            TutorialID = pID;
            TutorialName = pName;
        }
        public String GetTutorial()
        {
            return TutorialName;
        }
    }
}
```

```
using System;

namespace ex14
{
    class Program
    {
        static void Main(string[] args)
        {
            Tutorial pTutor = new Tutorial();
            pTutor.SetTutorial(1, ".NET");
            Console.WriteLine(pTutor.GetTutorial());
            Console.ReadKey();
        }
    }
}
```

- C# Access Modifiers and Constructor

```
using System;

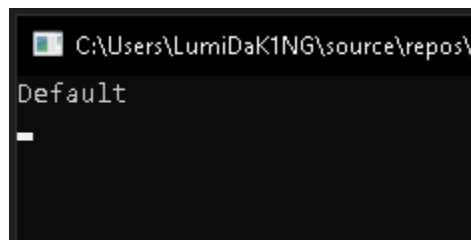
namespace example15
{
    class Tutorial
    {
        public int TutorialID;
        public string TutorialName;

        public Tutorial()
        {
            TutorialID = 0;
            TutorialName = "Default";
        }
        public void SetTutorial(int pID, string pName)
        {
            TutorialID = pID;
            TutorialName = pName;
        }
        public String GetTutorial()
        {
            return TutorialName;
        }

        static void Main(string[] args)
        {
            Tutorial pTutor = new Tutorial();

            Console.WriteLine(pTutor.GetTutorial());

            Console.ReadKey();
        }
    }
}
```



- C# Inheritance and Polymorphism

```
using System;

namespace ex16
{
    class Tutorial
    {
        protected int TutorialID;
        protected string TutorialName;

        public void SetTutorial(int pID, string pName)
        {
            TutorialID = pID;
            TutorialName = pName;
        }

        public String GetTutorial()
        {
            return TutorialName;
        }
    }
    public class ExampleTutorial : Tutorial
    {
        public void RenameTutorial(String pNewName)
        {
            TutorialName = pNewName;
        }

        static void Main(string[] args)
        {
            ExampleTutorial pTutor = new ExampleTutorial();

            pTutor.RenameTutorial(".Net by Example");

            Console.WriteLine(pTutor.GetTutorial());

            Console.ReadKey();
        }
    }
}
```

- C# Inheritance and Polymorphism

```
using System;

namespace ex17
{
    class Tutorial
    {
        public int TutorialID;
        public string TutorialName;

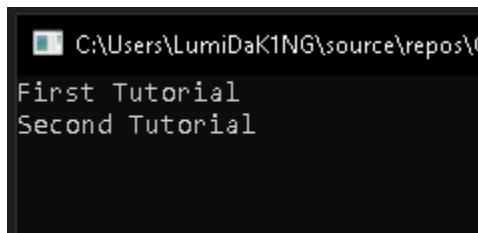
        public void SetTutorial(int pID, string pName)
        {
            TutorialID = pID;
            TutorialName = pName;
        }
        public void SetTutorial(string pName)
        {
            TutorialName = pName;
        }
        public String GetTutorial()
        {
            return TutorialName;
        }
    }

    static void Main(string[] args)
    {
        Tutorial pTutor = new Tutorial();

        pTutor.SetTutorial(1, "First Tutorial");
        Console.WriteLine(pTutor.GetTutorial());

        pTutor.SetTutorial("Second Tutorial");
        Console.WriteLine(pTutor.GetTutorial());

        Console.ReadKey();
    }
}
```



- C# Abstract classes

```
using System;

namespace ex18
{
    abstract class Tutorial
    {
        public virtual void Set()
        {

        }
    }
    class ExampleTutorial : Tutorial
    {
        protected int TutorialID;
        protected string TutorialName;

        public void SetTutorial(int pID, string pName)
        {
            TutorialID = pID;
            TutorialName = pName;
        }

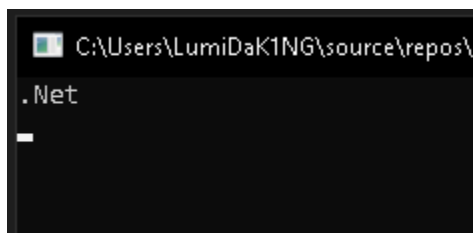
        public String GetTutorial()
        {
            return TutorialName;
        }

        static void Main(string[] args)
        {
            ExampleTutorial pTutor = new ExampleTutorial();

            pTutor.SetTutorial(1, ".Net");

            Console.WriteLine(pTutor.GetTutorial());

            Console.ReadKey();
        }
    }
}
```





- C# Interface

```
using System;

namespace ex19
{
    interface ExampleInterface
    {
        void SetTutorial(int pID, string pName);
        String GetTutorial();
    }

    class ExampleTutorial : ExampleInterface
    {
        protected int TutorialID;
        protected string TutorialName;

        public void SetTutorial(int pID, string pName)
        {
            TutorialID = pID;
            TutorialName = pName;
        }

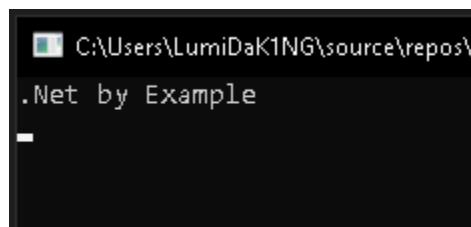
        public String GetTutorial()
        {
            return TutorialName;
        }

        static void Main(string[] args)
        {
            ExampleTutorial pTutor = new ExampleTutorial();

            pTutor.SetTutorial(1, ".Net by Example");

            Console.WriteLine(pTutor.GetTutorial());

            Console.ReadKey();
        }
    }
}
```

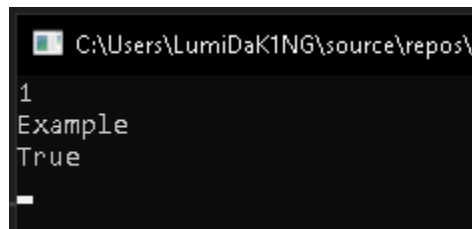


- C# ArrayList

```
using System;
using System.Collections;

namespace ex20
{
    class Program
    {
        static void Main(string[] args)
        {
            ArrayList a1 = new ArrayList();
            a1.Add(1);
            a1.Add("Example");
            a1.Add(true);

            Console.WriteLine(a1[0]);
            Console.WriteLine(a1[1]);
            Console.WriteLine(a1[2]);
            Console.ReadKey();
        }
    }
}
```

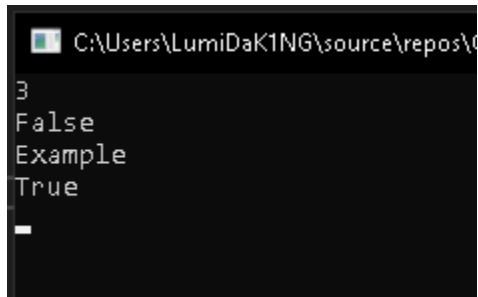


- C# ArrayList

```
using System;
using System.Collections;

namespace ex21
{
    class Program
    {
        static void Main(string[] args)
        {
            ArrayList a1 = new ArrayList();
            a1.Add(1);
            a1.Add("Example");
            a1.Add(true);

            Console.WriteLine(a1.Count);
            Console.WriteLine(a1.Contains(2));
            Console.WriteLine(a1[1]);
            a1.RemoveAt(1);
            Console.WriteLine(a1[1]);
            Console.ReadKey();
        }
    }
}
```



A screenshot of a Windows command prompt window. The title bar shows the file path "C:\Users\LumiDaK1NG\source\repos\0". The console output displays the results of the program: the number 3, the word False, the word Example, and the word True, each on a new line. A cursor is visible on the line following "True".

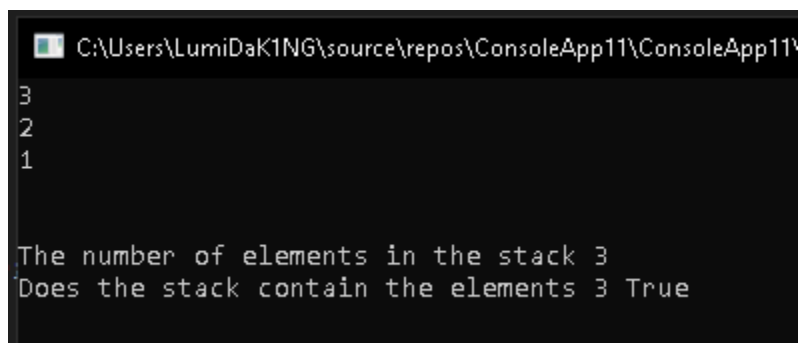
```
C:\Users\LumiDaK1NG\source\repos\0
3
False
Example
True
_
```

- C# Stack

```
using System;
using System.Collections;

namespace ex22
{
    class Program
    {
        static void Main(string[] args)
        {
            Stack st = new Stack();
            st.Push(1);
            st.Push(2);
            st.Push(3);

            foreach (Object obj in st)
            {
                Console.WriteLine(obj);
            }
            Console.WriteLine(); Console.WriteLine();
            Console.WriteLine("The number of elements in the stack " +
st.Count);
            Console.WriteLine("Does the stack contain the elements 3 " +
st.Contains(3));
            Console.ReadKey();
        }
    }
}
```



The screenshot shows a Windows command prompt window with the title "C:\Users\LumiDaK1NG\source\repos\ConsoleApp11\ConsoleApp11\". The output of the program is as follows:

```
3
2
1

The number of elements in the stack 3
Does the stack contain the elements 3 True
```

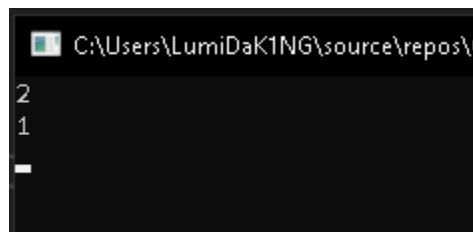
- C# Stack

```
using System;
using System.Collections;

namespace ex23
{
    class Program
    {
        static void Main(string[] args)
        {
            Stack st = new Stack();
            st.Push(1);
            st.Push(2);
            st.Push(3);

            st.Pop();

            foreach (Object obj in st)
            {
                Console.WriteLine(obj);
            }
            Console.ReadKey();
        }
    }
}
```

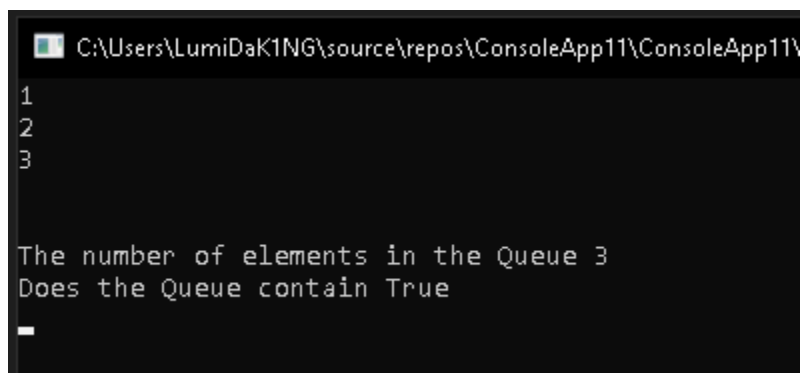


- C# Queue

```
using System;
using System.Collections;

namespace ex24
{
    class Program
    {
        static void Main(string[] args)
        {
            Queue qt = new Queue();
            qt.Enqueue(1);
            qt.Enqueue(2);
            qt.Enqueue(3);

            foreach (Object obj in qt)
            {
                Console.WriteLine(obj);
            }
            Console.WriteLine(); Console.WriteLine();
            Console.WriteLine("The number of elements in the Queue " +
qt.Count);
            Console.WriteLine("Does the Queue contain " + qt.Contains(3));
            Console.ReadKey();
        }
    }
}
```



The screenshot shows a Windows command prompt window with the title bar "C:\Users\LumiDaK1NG\source\repos\ConsoleApp11\ConsoleApp11\". The output of the program is as follows:

```
1
2
3

The number of elements in the Queue 3
Does the Queue contain True
_
```

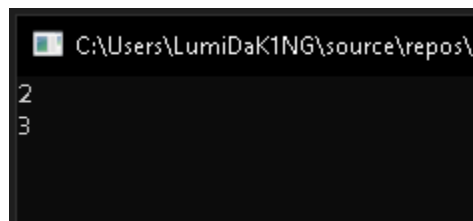
- C# Queue

```
using System;
using System.Collections;

namespace e25
{
    class Program
    {
        static void Main(string[] args)
        {
            Queue qt = new Queue();
            qt.Enqueue(1);
            qt.Enqueue(2);
            qt.Enqueue(3);

            qt.Dequeue();

            foreach (Object obj in qt)
            {
                Console.WriteLine(obj);
            }
            Console.ReadKey();
        }
    }
}
```



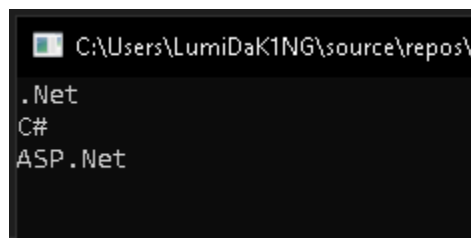
- C# Hashtable

```
using System;
using System.Collections;

namespace ex26
{
    class Program
    {
        static void Main(string[] args)
        {
            Hashtable ht = new Hashtable();
            ht.Add("001", ".Net");
            ht.Add("002", "C#");
            ht.Add("003", "ASP.Net");

            ICollection keys = ht.Keys;

            foreach (String k in keys)
            {
                Console.WriteLine(ht[k]);
            }
            Console.ReadKey();
        }
    }
}
```



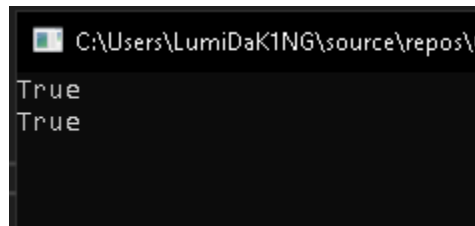


- C# Hashtable

```
using System;
using System.Collections;

namespace ex27
{
    class Program
    {
        static void Main(string[] args)
        {
            Hashtable ht = new Hashtable();
            ht.Add("001", ".Net");
            ht.Add("002", "C#");
            ht.Add("003", "ASP.Net");

            Console.WriteLine(ht.ContainsKey("001"));
            Console.WriteLine(ht.ContainsValue("C#"));
            Console.ReadKey();
        }
    }
}
```



- C# File Operations

```
using System;

namespace ex28
{
    class Tutorial
    {
        static void Main(string[] args)
        {
            String path = @"D:\Example.txt";

            if (File.Exists(path))
            {
                Console.WriteLine("File Exists");
            }
            Console.ReadKey();
        }
    }
}
```

- C# File Operations

```
using System;

namespace ex29
{
    class Tutorial
    {
        static void Main(string[] args)
        {
            String path = @"D:\Example.txt";

            String[] lines;
            lines = File.ReadAllLines(path);

            Console.WriteLine(lines[0]);
            Console.WriteLine(lines[1]);

            Console.ReadKey();
        }
    }
}
```

- C# File Operations

```
using System;

namespace ex30
{
    class Tutorial
    {
        static void Main(string[] args)
        {
            String path = @"D:\Example.txt";

            String lines;
            lines = File.ReadAllText(path);
            Console.WriteLine(lines);

            Console.ReadKey();
        }
    }
}
```

- C# File Operations

```
using System;

namespace ex31
{
    class Tutorial
    {
        static void Main(string[] args)
        {
            String path = @"D:\Example.txt";

            File.Delete(path);

            Console.ReadKey();
        }
    }
}
```

- C# Serialization

```
using System;
using System.IO;

namespace ex32
{
    class Tutorial
    {
        static void Main(string[] args)
        {
            String path = @"D:\Example.txt";

            using (StreamReader sr = File.OpenText(path))
            {
                String s = "";

                while ((s = sr.ReadLine()) != null)
                {
                    Console.WriteLine(s);
                }
            }
            Console.ReadKey();
        }
    }
}
```

- C# Serialization

```
using System;
using System.IO;

namespace example33
{
    class Tutorial
    {
        static void Main(string[] args)
        {
            String path = @"D:\Example.txt";

            using (StreamWriter sr = File.AppendText(path))
            {
                sr.WriteLine("Example - ASP.Net");
                sr.Close();

                Console.WriteLine(File.ReadAllText(path));
            }
            Console.ReadKey();
        }
    }
}
```