C sharp Book for Beginners:-

1. Sample Program

//Namespace Declaration

using System;

class Program;

{

public static void Main()

{

//write to console

Console.WriteLine("Welcome to Pragim Technologies!");

}

}

Using namespace declaration

The namespace declaration, using system, indicates that you are using the system namespace.

A namespace is used to organize your code and is collection of classes, interfaces, structs, enums and delegates. Main method is the entry point into your applications

Eg:-

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_1\_SampleProgram

{

class Program

{

static void Main1()

{

Console.WriteLine("Welcome to C# classes training part2!");

Console.ReadLine();

}

static void Main()

{

Console.WriteLine("Welcome to C# Training Classed");

Main1();

Console.ReadLine();

}

}

}

2. Reading and writing to console

using system;

calss Program

{

static void Main()

{

//Prompt the user for his name

console.WriteLine("Please enter your name");

//Read the name from console

string UserName=Console.Readline();

//concatenate name with hello world and print

Console.WriteLine("Hello"+UserName);

//peaceholder syntax to print name with hello world

//conole.WriteLine("Hello{0}",UserName);

}

}

Note:-C sharp is case sensitive

Eg:-

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_2\_WriteLineandReadline

{

class Program

{

static void Main()

{

Console.WriteLine("Please enter your FirstName");

string FirstName = Console.ReadLine();

Console.WriteLine("Please enter your LastName");

string LastName = Console.ReadLine();

Console.WriteLine("Hello {0},{1}", FirstName,LastName);

//Console.WriteLine("Hello" + UserName);

Console.ReadLine();

}

}

}

3. Built-in type in C#

#Bolean type==>Only true or false

#Integral Type==> sbyte,byte,short,unshort,int,uint,long,ulong,char

#Floating Type==> float and double

#Decimal Type

#String Type

For Eg:-

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_3Built\_in\_Types

{

class Program

{

static void Main()

{

bool b = true;

int i = 0;

Console.WriteLine("Min={0}", int.MinValue);

Console.WriteLine("Max={0}", int.MaxValue);

double d= 123.222334455;

Console.WriteLine(d);

Console.ReadLine();

}

}

}

4. String

string Name ="\"Ganesh\"";

string Name = "One\nTwo\nThree";

Q)What is Verbatim Literal?

Ans==>verbatim literal,is a string with an @ symbol perfix, as it @"Helo"

verbatim literals make escape sequences translate as normal printable

characters to enhance readbility

for eg:- without verbatim literal:-"c:\\Ganeh\\DotNet\\Training\\Csharp"

With verbatim literal:-@"c:\\Ganeh\\DotNet\\Training\\Csharp"

Eg:-

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_4\_StringDataType

{

class Program

{

static void Main()

{

string Name = @"c:\\Ganeh\\DotNet\\Training\\Csharp";

Console.WriteLine(Name);

Console.ReadLine();

}

}

}

5. Common operator in c #

#Assignement Operator like =

# Arithmatic Operators like +,-\*,/,%

# Comparison Operators like ==,!=,>,>=,<,<=

# Conditional Operator like &&, ||

# Ternary Operator like ?:

# Null Coalescing Operator ??

Eg:-

sing System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_5\_CommonOPerator\_In\_C\_Sharp

{

class Program

{

static void Main(string[] args)

{

//Assignment Operator

int i = 10;

bool b = true;

//Aerithmatic Operator

int numerator = 10;

int Denominator = 2;

int result = numerator / Denominator;

Console.WriteLine("Result={0}", result);

//Comparison Operator

int Number = 10;

if (Number==10)

{

}

if (Number!=10)

{

}

//Conditional Operator

int N1 = 10;

int N2 = 20;

// if (N1==10 && N2==20)//both the condition should be satisfy

if (N1 == 10 || N2 == 30) //one condition should be satisfy

{

Console.WriteLine("Hello");

Console.ReadLine();

}

//Ternary Operator

/\*int num = 15;

bool IsNumber10;

if (num==10)

{

IsNumber10 = true;

}

else

{

IsNumber10 = false;

}

Console.WriteLine("Number==10 is {0}", IsNumber10);

Console.ReadLine();

\*/

int num = 15;

bool isNumber10 = Number == 10 ? true : false;

Console.WriteLine("Number==10 is {0}", isNumber10);

Console.ReadLine();

}

}

}

6.Nullable Type in C sharp

In C sharp typsses are divided into 2 broad categories

#Value types==>int, float, double,structs,enum etc

#References Types==> interface,class,delegates,arrays etc

#By default values types are non vullable to make them nullable use?

int i=0(i is non nullable, so i can not be set to null, i=null will generate compile error)

int?j=(j is nullable int,so j=null is legal)

Nullable types bridge the differences between c # types and Database types

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Nullable\_Types\_of\_C\_sharp

{

class Program

{

static void Main(string[] args)

{

/\*

bool? areyouMajor = null;

if (areyouMajor==true)

{

Console.WriteLine("User is Major");

Console.ReadLine();

}

else if(areyouMajor==false)

{

Console.WriteLine("User is not Major");

Console.ReadLine();

}

else

{

Console.WriteLine("User did not answer the question");

Console.ReadLine();

}\*/

int? ticketonsales = 5;

int availabletickets=ticketonsales??0;//null colleciong operator

/\* if (ticketonsales==null)

{

availabletickets = 0;

}

else

{

availabletickets =(int) ticketonsales;

}

\* \*/

Console.WriteLine("AvailableTickets={0}", availabletickets);

Console.ReadLine();

}

}

}

/\*Data type conversion in C sharp.There are two types of conversion i.e #implicit and Explicit

#Implicit conversion:-

Implicit conversion done by the compiler

1.When there is no loss of information if the conversion is done

2. If there is no pollibility of Throwing the exception during the conversion

Example:-Converting an int to float will not loose any data and no exception will be thrown hence

an implicit conversion can be done

Where as when converting a float to an int , weloose the fractional part

so conversion is required.For explicitconversion we can use cast operator or the convert

class in c sharp

\*/

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_7\_DataTypeConversion

{

class Program

{

static void Main(string[] args)

{

//not possible

/\*float f = 100.25;

int i = f;

Console.WriteLine(i);

Console.ReadLine();

\*/

//possible to do

/\* int i = 100;

float f = i;

Console.WriteLine(f);

Console.ReadLine();

\*/

/\* float f = 123.60F;

int i = Convert.ToInt32(f);

Console.WriteLine(i);

Console.ReadLine();

\*/

string strNumber = "100TG";

int Result=0;

bool IsConversionIsSucesseful= int.TryParse(strNumber,out Result);

// int i = int.Parse(strNumber);

if (IsConversionIsSucesseful)

{

Console.WriteLine(Result);

Console.ReadLine();

}

else

{

Console.WriteLine("Enter valid NUmber");

Console.ReadLine();

}

}

}

}