



C# Basics

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LECTURE 3

Some Important Points

Point 1:

In console applications, we can not directly insert int, float and char values by using Console.Read() function. So, for using this we have to convert it from the string type to the respective data type.

Point 2:

For halting your console application always try to use:

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

Point 3:

We will initialize float and double variables as:

```
float f=5.6F;
```

```
Double d=6.7D; Double d=6.7;
```

Another Way of Displaying Variables
Values in `Console.WriteLine()`;

Running Demo

C# Type Conversion

Type conversion is converting one type of data to another type. It is also known as Type Casting. In C#, type casting has two forms:

Implicit Type Conversion:

These conversions are performed by C# in a type-safe manner. For example, are conversions from smaller to larger integral types and conversions from derived classes to base classes.

Explicit Type Conversion:

These conversions are done explicitly by users using the pre-defined functions. Explicit conversions require a cast operator.

Explicit Type Conversion (Example)

```
static void Main(string[] args)
{
    double d = 5673.74;
    int i;
    // cast double to int.
    i = (int)d;
    Console.WriteLine(i);
    Console.ReadKey();
}
```

C# Type Conversion Methods

ToBoolean

Converts a type to a Boolean value, where possible.

ToByte

Converts a type to a byte.

ToChar

Converts a type to a single Unicode character, where possible.

ToDateTime

Converts a type (integer or string type) to date-time structures.

ToDecimal

Converts a floating point or integer type to a decimal type.

C# Type Conversion Methods

ToDouble

Converts a type to a double type.

ToInt16

Converts a type to a 16-bit integer.

ToInt32

Converts a type to a 32-bit integer.

ToInt64

Converts a type to a 64-bit integer.

ToSbyte

Converts a type to a signed byte type.

C# Type Conversion Methods

ToSingle

Converts a type to a small floating point number.

ToString

Converts a type to a string.

ToType

Converts a type to a specified type.

ToUInt16

Converts a type to an unsigned int type.

ToUInt32

Converts a type to an unsigned long type.

ToUInt64

Converts a type to an unsigned big integer.

ToString() Function

```
static void Main(string[] args)
{
    int i = 75;
    float f = 53.005f;
    double d = 2345.7652;
    bool b = true;
    Console.WriteLine(i.ToString());
    Console.WriteLine(f.ToString());
    Console.WriteLine(d.ToString());
    Console.WriteLine(b.ToString());
    Console.ReadKey();
}
```

How to get input of int and char values in Console Applications

Running Demo