1st c# lecture

First program we wrote:

```
using System;

namespace hello_world_2

{

  internal class Program

  {

    static void Main(string[] args)

    {

      Console.WriteLine("Hello World!");

      Console.WriteLine("dwayne johnson the rock");

      Console.WriteLine("please write your name");

      string name = Console.ReadLine();

      Console.WriteLine("welcome " + name + " congrats your programming survey");

    }

  }

}
```

second program with age

```
using System;

namespace hello_world_2
```

```
{
  internal class Program
  {
    static void Main(string[] args)
    {

      Console.WriteLine("please write your age");
      int age = Int32.Parse(Console.ReadLine());
      Console.WriteLine("you are " + age + " years old");
    }
  }
}
```

2nd c# lecture

```
      */
    }
  }
}
```

notes: we learned that double divide (//) allows us to put comments

when you wanna input integer you should put Int32.Parse(Console.Readline());

double divide is comment for one line, if you wanna give multi-line comment we use /* and */

like this:

```
/*
* comment1
*comment2
*/
```

C# is case sensitive which means uppercase or lowercase makes difference (different variables are for example name, Name, NAME, nAmE…)

```
using System;
namespace ConsoleApp2
{
  internal class Program
  {
    static void Main(string[] args)
    {
      Console.WriteLine("Type your name: ");
      string name = Console.ReadLine();
      Console.WriteLine("type your age: ");
      int age = Int32.Parse(Console.ReadLine());
      //printing two variables at once using plus operator
      Console.WriteLine("your name: " + name + " and your age: " + age);
    }
```

```
  }
}
using System;
namespace ConsoleApp2
{
  internal class Program
  {
    static void Main(string[] args)
    {
      Console.WriteLine("Hello World!");
      int age = Int32.Parse(Console.ReadLine());
      string name = Console.ReadLine();
      Console.WriteLine("your name " +name+ " and your age " + age);
      //another method to printout something using placeholder
      Console.WriteLine("your name: {0} and your age {1} and {2} ", name, age, name);
    }
  }
}
using System;
namespace ConsoleApp2
{
  internal class Program
```

```
 {
   static void Main(string[] args)
   {
     Console.WriteLine("Hello World!");
     int age = Int32.Parse(Console.ReadLine());
     string name = Console.ReadLine();
     //another method to printout something
     Console.WriteLine($"your name: {name} and your age is {age} ");
   }
 }
}
```

notes: these are 3 methods to printout something

ESCAPE CHARACTERS

notes: Console.WriteLine("Oguzhan\nSucuoglu"); will give output

oguzhan

sucuoglu

when you wanna ad double quotation marks

Console.WriteLine("oguzhan"sucuoglu");

'

"

\

\t

\v

\n

...

```
//variable declaration

string student_name;

//assignment a value to the variable

student_name = "oguzhan";

//both declaration and assignment

string student_name = "oguzhan";
```

IDENTIFIER

An identifier, in C#, is the user-defined name of a program element. It can be a namespace, class, method, variable or interface. Identifiers are symbols used to uniquely identify a program element in the code. They are also used to refer to types, constants, macros and parameters.

rules for naming identifier

must be unique

must start with a letter not a number or special characters

can't contain more characters than 512

cannot contain function words

CONSTANT

LITERALS

OPERATOR EVALUATION & PRECEDENCE

3rd c# lecture

I'll insert when I find it

4th c# lecture

\1) example

```
Console.WriteLine("Please type a degree between 0 and 360.");

double degree = Double.Parse(Console.ReadLine());

double radyan = degree * Math.PI / 180;

double gradyan = degree * 200 / 180;

Console.WriteLine("Radyan = " + radyan);
```

\2) example

```
Console.WriteLine("Please type the height of the triangle.");

double height = Double.Parse(Console.ReadLine());

Console.WriteLine("Please type the length of base of the triangle.");

double baseoftriangle = Double.Parse(Console.ReadLine());

double area = height * baseoftriangle / 2;

Console.WriteLine("Area of the triangle = " + area);
```

\3) example

```
// finding area of circle slice angle and radius (area = angle/360 * pi * r^2)

Console.WriteLine("Please enter the angle of the slice.");

double angle = Double.Parse(Console.ReadLine());
```

```
Console.WriteLine("Please enter the radius of the slice.");
double radius = Double.Parse(Console.ReadLine());
double areoftheslice = radius * radius * angle * Math.PI / 360;
Console.WriteLine("Area of your slice = " + areoftheslice);
```

\4) example

```
Console.WriteLine("please type a number.");
int number = Int32.Parse(Console.ReadLine());
if (number > 0)
{
  Console.WriteLine("number is positive.");
else if(number < 0)
{
  Console.WriteLine("number is negative.");
}
else
{
  Console.WriteLine("number is zero.");
```

we don't use ; end of the if condition

\5) example

```
Console.WriteLine("please type a number.");
int number = Int32.Parse(Console.ReadLine());
if (number % 2 == 0)
```

```
{
  Console.WriteLine("the number is even.");
}
else
{
  Console.WriteLine("the number is odd.");
}
```

6)

```
Console.WriteLine("please type a number.");
double number = Double.Parse(Console.ReadLine());
if (number <= 4)
{
  double fx = -2 * number + 8;
  Console.WriteLine("result is = " + fx);
}
else
{
  double fx = number/2 -2;
  Console.WriteLine("result is = " + fx);
}
```

\7) example

```
Console.WriteLine("please type 2 numbers first x and then y.");
```

```
int horizontal = Int32.Parse(Console.ReadLine());
int vertical = Int32.Parse(Console.ReadLine());
if (horizontal > 0 && vertical > 0)
{
  Console.WriteLine("first region");
}
else if (vertical > 0 && horizontal < 0)
{
  Console.WriteLine("second region");
}
else if (horizontal < 0 && vertical < 0)
{
  Console.WriteLine("third region");
}
else if (vertical < 0 && horizontal > 0)
{
  Console.WriteLine("fourth region");
}
```

if there is only one statement after condition we don't have to use curly braces.

\8) example

```
int a = 4;
int b = 10;
```

```
int c = 20;

if (a >= 5)

{

  b = 30;

  c = 40;

}

Console.WriteLine("b = " + b);

Console.WriteLine("c = " + c);
```