# C# Programming Reference Sheet

Built In Data Types & Literals

Integers

Int, short, long (eg: 5, 10)

Floating Point Numbers

Float, double (eg: 3.1, 2.5)

Strings and Characters

String, char (eg:”qwerty”, “a”)

Boolean

Bool (eg: True, False)

Working with Strings

Assignment (giving a string a value)

Name = “joe”;

Concatenation (joining strings)

Name = Name + “ Joe”;

Comparison

If(Name == “joe Joe”) {}

Construction from other types:

Name = IntValue.ToString();

Programs and Modules

Creating a program

Namespace programName

{ class MainClass{}}

Using a class from a library

Using System

Using SwinGame;

Custom Types

Classes

Public class Customer{}

Enumerations

Public enum day{Monday,Tuesday}

Structs

Public struct studentID

{

Public string name;

Public int ID;

}

Arrays

Declaration

Int[] I;

Int[] I = new Int[3];

Access

I[0] = 5;

Loop with index i

For(int i = 0; i < 5; i++) {Number[i]++}

For each loop

Foreach(int I in Iarray) {}

Other Things

Reading from Terminal

Console.ReadLine();

Writing to Terminal

Console.WriteLine(“Hello World!”);

Comments

// single line

/\* multiple line \*/

Declaring Methods

Declare a method with parameters:

Public void CallNo(int number){}

Declare a method that returns data:

Public int CallNo (){return number;}

Pass by reference:

Int I;

CallNo(ref I);

Static void CallNo(ref int a)

Simple Programming Statements

Constant declaration

Const int X;

Variable declaration

Public int i;

Assignment

i = 0;

Method call

Console.WriteLine(“asdfgh”);

Sequence of statements - grouped

{ ///////code }

Structured Programming Statements

If statement

If(Name == “joe Joe”) {}

Case statement

Switch(intValue)

{case 1: Console.WriteLine(“1”); break;}

While loop

While(I < 9000) {}

Repeat loop

Do{ ///code } While(i < 9000)

For loop

For(int i = 0; i < 5; i++) {}

Boolean Operators and Other Statements

Comparison: equal, less, larger, not equal, less eq

== = < > != <=

Boolean: And, Or and Not

&& || !

Skip an iteration of a loop

Continue;

End a loop early

Break;

End a function/procedure:

Return value; Return;