# ­­C# Programming Reference Sheet

Built In Data Types & Literals

Integers

Int, short, long (1,4,8,16)

Floating Point Numbers

Float, double, decimal (1.4,2.55,8.43)

Strings and Characters

String, char (“Hello” ‘World’)

Boolean – (True, False)

Working with Strings

Assignment (giving a string a value)

Name = “John”;

Concatenation (joining strings)

Name + “ Smith”

Comparison

If (name == “John Smith”)

Construction from other types:

Num = num.ToString();

Programs and Modules

Creating a program

Class Main{

Public static void Main(){}

}

Using a class from a library

Using system;

Custom Types

Classes

Public class Message {}

Enumerations

Enum Colour {blue, green, red}

Structs

Struct employee

{public string name; public string id;}

Arrays

Declaration

Int[] ages = new int[10];

Access

Ages[5] = 20;

Loop with index i

For(x=0;x>10;x++)

For each loop

Foreach (int I in age)

Other Things

Reading from Terminal

Console.ReadLine();

Writing to Terminal

Console.WriteLine();

Console.Write();

Comments

//

/\* …..\*/

Declaring Methods

Declare a method with parameters:

Static int Add (int a, int b)

Declare a method that returns data:

Static int Add (int a, int b) {return a + b;}

Pass by reference:

Num = 1

squareReference (ref num);

Simple Programming Statements

Constant declaration – const double Pi = 3.145

Variable declaration – type, name; int age

Assignment – variable = name; age = 20;

Method call – Console.WriteLine($“{age}”);

Sequence of statements - grouped

Class program {}

Structured Programming Statements

If statement

If (){}

Case statement

Switch (day) {case 1: break; case 2: break;}

While loop – while () {}

Repeat loop – do {} while ();

For loop – for (int f = 0; f < 10; f++) {}

Boolean Operators and Other Statements

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

= < > != <= >=

Boolean: And, Or and Not

&& || !(true)

Skip an iteration of a loop

Continue;

End a loop early

Break;

End a method:

Exit;