# C# Programming Reference Sheet

Working with Strings

Assignment (giving a string a value)

A= “stuff”

Concatenation (joining strings)

String A = “stuff” +”form”;

Comparison

“stuff” == “stuff”

Construction from other types:

A= A.ToString();

Declaring Methods

Declare a method with parameters:

Public string message(text) {do something}

Declare a method that returns data:

Public string message(text) {return text}

Pass by reference:

Int a = 10;

Multiplication (ref a);

Console.WriteLine (a);

Built In Data Types & Literals

Integers

Int, long (eg 4,10)

Floating Point Numbers

Float, Double (eg 3, 6.5)

Strings and Characters

String, Char (eg ‘Qwerty’, ‘D’)

Boolean

Boolean (eg true false)

Programs and Modules

Creating a program

Class MainClass{

public static void Main()

{}

}

Using a class from a library

Using Mylibrary;

Custom Types

Classes

Public class stuff {}

Enumerations

Enum Genre {rock, classical, deathmetal, rap}

Structs

struct Student {public string name; public int age;}

Arrays

Declaration

Int []days;

Access

Day[0] = 1

Loop with index i

For (i=0;i<10,i++){day[i]=i+1}

For each loop

Foreach( int albumID in albumsID)

Other Things

Reading from Terminal

Console.Readline()

Writing to Terminal

Console.writeline()

Comments

//comment stuff

Simple Programming Statements

Constant declaration

Private const int num1= 34;

Variable declaration

Int num1 = 0;

Assignment

A = 420

Method call <Access Specifier> <return type> <method name> (Parameter List) {method body}

Sequence of statements – grouped

{ }

Structured Programming Statements

If statement

If (true) then { } else

Case statement

Switch (a) {case1: do something for case 1; break; case2: do something for case2; break;}

While loop

While (i<10) do {something; i++}

Repeat loop

Do {x+1;x++} while {x<10};

For loop for (i=0; i<10;i++) {do something}

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 method:

Return;