# C# Programming Reference Sheet

Built In Data Types & Literals

Integers

int

Floating Point Numbers

float, double

Strings and Characters

string, char

Boolean

bool

Working with Strings

Assignment (giving a string a value)

string str = “hello”

Concatenation (joining strings)

str = “hello” + “world”;

Comparison

String.Compare(string1,string2, true)

Construction from other types:

int.ToString;

Convert.ToString(i);

Programs and Modules

Creating a program

class MainClass

Using a class from a library

ClassName a = new ClassName();

Custom Types

Classes

class ClassName

Enumerations

enum Enumeration

Structs

struct StructName

Arrays

Declaration

int[] a;

Access

a[0]

Loop with index i

for (int i = 0; i < a.length; i++)

{…}

For each loop

A[i]

Other Things

Reading from Terminal

Console.ReadLine, Console.Read

Writing to Terminal

Console.WriteLine, Console.Write

Comments

///<comment>

///write comment here

///</comment>

Declaring Methods

Declare a method with parameters:

void Method(string int)

Declare a method that returns data:

int Method()

Pass by reference:

string Method(ref int a)

Simple Programming Statements

Constant declaration

const float PI = 3.14;

Variable declaration

int integer;

Assignment

Integer = 10;

Method call

Class.Method;

Sequence of statements - grouped

{…}

Structured Programming Statements

If statement If (i < a){…}else{…}

Case statement

switch (i)

case 1: a = 0;

break;

case 2: a = 1;

break;

default: a = 2;

While loop While (a > 3){…}

Repeat loop do {…} while (I <>0)

For loop for (i = 0; I<10; 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;