# C# Programming Reference Sheet

Built In Data Types & Literals

Integers

Byte sbyte int unit long lượng short ushort

Floating Point Numbers

Decimal double float

Strings and Character

Char string

Boolean

Bool

Working with Strings

Assignment (giving a string a value)

String strA =”Hello .”

Concatenation (joining strings)

String strB = strA +”World !”

Comparison

strA == strB ,or string.Compare(strA , strB)

Construction from other types:

otherType.ToString()

Programs and Modules

Creating a program

Namespace program

Class mainclass { }

Using a class from a library

#inclue SwinGameApi ;

Custom Types

Classes

Public class Message (string message)

Enumerations

Ẹnum Day {sat , sun ,mon , tues)

Structs

Public struct Point2d {

Int\_x ,\_y

Public Point2d (int x, int y) {...

Arrays

Declaration

String [ ] Message = new String [5]

Access

Message [0]

Loop with index i

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

.... Message [i] ...

For each loop

For each (string str in message ) (...

Other Things

Reading from Terminal

Console.ReadLine ();

Writing to Terminal

Console.WriteLine (“Hello ,World !”)

Comments

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Declaring Methods

Declare a method with parameters:

public void Say hello (string name)

Declare a method that returns data:

public int Multiply (int a , int b)

Pass by reference:

Public void Square (ref int a ); void Square (out int a) . ref is two-way ,out is out-only.

Simple Programming Statements

Constant declaration

public const double PI =3.141;

Variable declaration

Public int radius;

Assignment

Radius = Pi /5;

Method call

Console.WriteLine(“Hello!”);

Sequence of statements - grouped

{ }

Structured Programming Statements

If statement

If (a== b) { }

Case statement

Switch (caseSwitch) {case 1:black }

While loop

While (n < 6 ) { }

Repeat loop

Do { } ,while (n<5)

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 method:

Return