# 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)

Name = “Fred”;

Concatenation (joining strings)

Name = name + “ Smith”;

Comparison

If name == “Fred Smith”{}

Construction from other types:

Name = “R” + Convert.ToChar(2) + “D” + Convert.ToChar(2);

Programs and Modules

Creating a program

Static void Main()

{

…

Console.ReadKey();

}

Using a class from a library

Using SwinGame;

Custom Types

Classes

Public class Customer {}

Enumerations

Enum Day {Sat, Sun, Mon, …};

Structs

Public struct Book

{

Public decimal price;

Public string title;

}

Arrays

Declaration

Int[] array = new int[5];

Access

Console.Write(array[3]);

Loop with index i

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

For each loop

Foreach (int i in numbers)

{}

Other Things

Reading from Terminal

Console.ReadLine();

Console.Read();

Writing to Terminal

Console.WriteLine();

Console.Write();

Comments

//asdajkwdwkjd

Declaring Methods

Declare a method with parameters:

Public void Method1 (parameter){}

Declare a method that returns data:

Public int Method2 () {return value;}

Pass by reference:

Method1 (parameterX);

Simple Programming Statements

Constant declaration

Const int x = 0;

Variable declaration

Int x = 0;

Assignment

X = 5;

Method call

PlusMinus(1,5);

Sequence of statements - grouped

Var studentQuery1 = From student in students group student by student.Last[0];

Structured Programming Statements

If statement

If (condition) {}

Case statement

Switch (caseSwitch) {case 1: … break;}

While loop

While (condition) {}

Repeat loop

Do {} while(condition)

For loop

For (conditions) {}

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;