# C# Programming Reference Sheet

Working with Strings

Assignment (giving a string a value)

String Brand = “Apple”

Concatenation (joining strings)

String Brand = “Apple” + “iPhone”

Comparison

String.Compare(brand1, brand2)

Construction from other types:

String text = number.ToString()

Built In Data Types & Literals

Integers

Int, Short Long

(e.g. 1, 2, 123)

Floating Point Numbers

Float, Double

(e.g. 3.1415, 420.69)

Strings and Characters

String, Char

(e.g. “Hello World”)

Boolean

Bool

(e.g. True, False

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

Custom Types

Classes

Public class x{}

Enumerations

Enum week{Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday}

Structs

Struct Employee{

Public int EmployeeID;

Public string FirstName;

Public string LastName;

}

Declaring Methods

Declare a method with parameters:

Public void Print(String Name){

//Perform Code Snippet

}

Declare a method that returns data:

Public int addition(variable One, variable Two){

Return result = One + Two

}

Pass by reference:

Public void change(int[] arr){

Arr[0] = 420; //Change Array

}

Static void Main(){

Int[]arr={1,2,3};

Change(arr);

}

Structured Programming Statements

If statement

If(name = George){

Console.WriteLine(“Great Name!”)

}

Else{

Console.WriteLine(“What a bad name”)

}

Case statement

Switch(example){

Case1: //First Code Snippet

Break;

Case2: //Second Code Snippet

Break

Default: //Default Code Snippet

Break;

}

While loop

While (x <= 5){

//Perform Code Snippet

}

Repeat loop

Do{

//Perform Code Snippet

} while(conditions);

For loop

For(x=0; x<count; x++){

//Perform Code Snippet

}

Simple Programming Statements

Constant declaration

Public Const float PI = 3.1415

Variable declaration

Public Int I = 7;

Assignment

PI = 3.1415

Method call

Console.WriteLine(“Brand”)

Sequence of statements - grouped

If…Else…

Other Things

Reading from Terminal

Console.Read

Writing to Terminal

Console.Write

Comments

// Single Line

/\* \*/ Multiple Lines

Arrays

Declaration

Int num[] = new int[1]

Access

Num[1], num[2]

Loop with index i

While (I <= 5) {

//Perform Code Snippet

}

For each loop

For each (condition) {

//Perform Code Snippet

}

Programs and Modules

Creating a program

Using System;

Namespace HelloWorld {

Class Hello {

Static void Main() {

Console.WriteLine(“Hello”);

}

}

}

Using a class from a library

Using System;