C# Programming Reference Sheet

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)

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();

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}

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);

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 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)

Programs and Modules

Creating a program
Class MainClass{
public static void Main()
{}
}

Using a class from a library
Using Mylibrary;

Other Things

Reading from Terminal
Console.Readline()

Writing to Terminal
Console.writeline()

Comments
//comment stuff