

Software Development: Object Oriented Programming

(H171 35)

C# Language Fundamentals

**Exercise 1**

Write a short program creating and initializing each of the following types of variables: int, float, double, char, and then outputting the values to the console.

*Outcomes*:

You should be able to understand the operation of WriteLine and what the following statement would display :-

System.Console.WriteLine("After assignment, myInt: {0} and myOtherInt: {1}", myInt, myOtherInt);

Investigate the use of enumerations (P.52)

*Resources*:

Chapter 3 – C# Language Fundamentals

**Exercise 2**

Write a program that assigns the value 25 to variable x, and 5 to variable y. Output the sum, difference, product, quotient, and modulus of x and y

What will be the output of the following method?

static void Main( )

{

int varA = 5;

int varB = ++varA;

int varC = varB++;

Console.WriteLine( "A: {0}, B: {1}, C: {2}", varA, varB, varC );

}

Write a program that demonstrates the difference between the prefix and postfix operators

*Outcomes*:

Familiarisation of C# operators

*Resources:*

Chapter 4 – Operators

**Exercise 3**

Create a method that counts from 1-10 using each of the while, do...while, and for statements

Create a program that evaluates whether a given input is odd or even; a multiple of 10, or too large (over 100) by using four levels of if statement. Then expand the program to do the same work with a switch statement

Create a program that initializes a variable i at 0 and counts up, and initializes a second variable j at 25 and counts down. Use a for loop to increment i and decrement j simultaneously. When i is greater than j, end the loop and print out the message “Crossed over!”

*Outcomes*:

Familiarisation with C# selection and iteration

*Resources:*

Chapter 5 - Branching