Pass Task 4 – Reference Sheet

Related Learning Outcomes

ULO1 – Explain the OO Principles

None.

ULO2 – Use OO Language and Library

This exercise demonstrated the understanding of using the c# syntax for all different features such as data types, working with strings, simple programming statements, structure programming statements, Declaring Methods, Boolean operators, custom types, arrays, programs and modules and other things such as commenting.

ULO3 – Design, Develop and Test using an IDE

None.

ULO4 – Communicate using UML Diagrams

None.

ULO5 – Describe Elements of Good OO Design

The exercise demonstrated correct use of C# coding conventions.

Screenshots

C# Programming Reference Sheet

Built In Data Types & Literals

Integers
```
Int, short, long (eg: 5, 10)
```
Floating Point Numbers
```
Float, double (eg: 3.1, 2.5)
```
Strings and Characters
```
String, char (eg:"qwerty", "a")
```
Boolean
```
Bool (eg: True, False)
```

Working with Strings

Assignment (giving a string a value)
```
Name = "joe";
```
Concatenation (joining strings)
```
Name = Name + " Joe";
```
Comparison
```
If(Name == "joe Joe") {}
```
Construction from other types:
```
Name = IntValue.ToString();
```

Simple Programming Statements

Constant declaration
```
Const int X;
```
Variable declaration
```
Public int i;
```
Assignment
```
i = 0;
```
Method call
```
Console.WriteLine("asdfgh");
```
Sequence of statements - grouped
```
{ ///////code }
```

Structured Programming Statements

If statement
```
If(Name == "joe Joe") {}
```
Case statement
```
Switch (intValue)
{case 1: Console.WriteLine("1"); break;}
```
While loop
```
While(I < 9000) {}
```
Repeat loop
```
Do{ ///code } While(i < 9000)
```
For loop
```
For(int i = 0; i < 5; i++) {}
```

Declaring Methods

Declare a method with parameters:
```
Public void CallNo(int number){}
```
Declare a method that returns data:
```
Public int CallNo (){return number;}
```
Pass by reference:
```
Int I;
CallNo(ref I);
Static void CallNo(ref int 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 function/procedure:
```
Return value; Return;
```