**LO1:  Understand programming languages.**

1.1 Explain the principles and concepts of programming languages.

# Introduction

Guidance:   
 one page for each maybe two for oop

Not including diagrams

   
As a minimum, your report should include:

## Procedural Programming

* Procedural languages: (Pascal, C, Fortran)
* Statements, blocks, procedures, functions
* Libraries
* Parameter passing
* Debugging code   
   include watches, logging, intellisense

## Object Orientated Programming

* Object Oriented languages: (Visual C#, C++, .NET, Java, Python etc.)
* Classes, Objects
* Abstraction
* Encapsulation
* Inheritance
* Polymorphism
* Design patterns
* IDEs

## Event Driven Programming

* Event Driven languages (Visual Basic, Visual C++ and Java etc.)
* Event types
* Triggers
* Controls and tools
* Use of loops
* Event listeners and handlers
* Links to Visual Languages – objects/properties/menus

Programming languages: e.g. Visual Basic, Visual C++ and Java

Task 1

Write a sentence or two about the key points you have learned about

* + Procedural programming
    - Sequence of command executed in order
    - Uses procedures for code re-use and ease of comprehension
    - Focuses on the over all task, normally a single task
    - Allows for global variables (which is kinda bad) and not for data protection/encapsulation
    - Program starts, does its thing and then ends
  + Event driven programming
    - Uses a loop to respond to events raised by systems or users i.e. flow of control determined by events not a linear progression
    - Can stall the loop with long running events
    - Order of event processing is not controlled by programmer
    - Triggers -> event listener (if active) -> event handler (if defined)
    - Uses procedures for code re-use and ease of comprehension
    - Programs do not ‘end’ but continue process the event loop until exited