

**Electronic Assignment Cover sheet**

**Please fill out and attach as the first page of Assignment.**

**Student (s) Number as per your student card:**

Peter Coker 1725266

**Course Title:** Higher Diploma in Science in Computing (Software Development) - Part-time

**Module Code**: B8IT117

**Lecturer Name:** Claire Caulfield

**Module/Subject Title:** Information Systems Development & Management

**Assignment Title:** Object Oriented Programming

**No. of Words:** 344

# Technical Merit

Aside from building a new management software package for Dublin Business School with a console application meeting the requirements specified within the scope. There were the following additional functionality and services added to the new management software package.

There were additional attributes added to both Student and Teacher Class out of which Enums were used. To ensure that each Student and a Teacher profile is unique, a method was created to identify whether a Student or Teacher profile was unique. For each Student and Teacher Class, IComparable (interface) was used to allow each of the Student and Teacher instances to be compared. Two Generic Collections List<T> were created from each Student and Teacher Class using ICollection (interface). The programme allowed for services such as viewing options and to manipulate the data in the programme.

In the case for Students. These features included being able to view all Students in the programme, filter the viewing options between postgrad or undergrad Students, filter the viewing options between current or graduate Students, filter the viewing options between postgrad/undergrad current Students or postgrad/undergrad graduate Students, view a sorted list of Students by their Student ID, view the total number of Students in the programme. Find a Student profile, delete a Student profile, clear all Students in the programme, switch to using the Teacher’s application and end the programme.

In the case for Teachers. These features included being able to view all Teachers in the programme, filter the viewing options between current and past Employees of DBS, view a sorted list of Teachers by their Employee ID, view the total number of Teachers in the programme. Find a Teacher profile, delete a Teacher profile, clear the list of Teachers in the programme, switch to using the Student application and end the programme.

If and else statements were used instead of try and catch statements for exception handling as plans were carefully thought out to ensure the users enter the right inputs as appose to using try and catch statements not planning out what might go wrong in the code.