Assignment 2 – 20%

The following CA brief has reduced requirements due the closure of the college. You will still meet all the learning outcomes with these requirements.

# Requirements

## Application Basic Requirements

* Your application will implement:
  + Inheritance - at least one superclass and two sub-classes.
  + An abstract class and abstract methods.
  + An Interface (eg Printable)- an interface with at least two classes that implement this interface.
  + A one-to-many relationship.
  + Exception handling when appropriate.
* Create and Read to database for one sub-class
* Read by Id for the one-many - read manager and all that manager’s staff by managerID
* Comment your code thoroughly to prove your understanding of the code

**Comments in code are now very important as you will not be able to demo your code to me, you need to prove your understanding of the code.**

## Advanced Requirements (for B+ or A Grade)

Advanced projects will have the following:

* Create in Database for the one to many relationship
  + eg. Create new manager then create staff and link them to that manager. - Create Manager, get the new manager ID returned from the database (RETURN GENERATED KEY) and keep adding staff with that manager Id until the user has added enough staff.
  + **I will provide code and a step by step notes for this early next week.**

For very high grade consider some of the following:

* Your application will implement more functionality for the inheritance and one-many relationship. (CRUD)
* You will demonstrate an expert understanding of one-many relationships in your report and code comments.
* You will demonstrate an expert understanding of inheritance in your report and code comments.
* You will research, implement and document your understanding of polymorphism.

## Report Requirement

**The report will now be very short,** it only requires A class diagram and an implementation checklist

Note : you of course can include more if you are aiming for a very high grade, eg. research and write about object oriented concepts.

#### Design

1. **A class diagram** representing you’re the object oriented concepts you have learned

* Inheritance
* Abstract classes
* Abstract methods
* Interface
* One-to-Many

#### Implementation

1. **A checklist**

* of all functionality that is working
* of all partially working functionality, along with any known bugs
* all attempted functionality that does not work. -note keep this in your code and comment it out if it causes problems

# Submission

You MUST submit a zip file onto blackboard. Name the file with **your own name and student number**. The file will include:

1. Your program code as a NetBeans project folder
2. Your report as a word document or PDF
3. The .sql file

This ZIP file MUST be submitted to Blackboard.

### Submission Deadline

**Submission Date – Friday 3rd April 2020 – End of day.**

**Please contact me if you cannot submit on this date.**