**Athlone Institute of Technology**

**Faculty of Engineering & Informatics**

**Semester 1 Assignment 2021**



**Software Development for Cloud 2.1**

The purpose of this assignment is to write a python application that Links a Gui to a List of Objects (See Example)

1. **There are 2 deliverables:**

* **Code for completed application**
* **Screencast video that briefly describes the code and then shows the features of the application as its executed**

1. **You must also submit a copy of a signed Plagiarism Form**
2. This assessment is worth 30% of the overall module mark
3. **The remaining 20% for CA will be a time limited coding exam (I will supply a sample paper in advance).**
4. I have included in moodle a sample application and a video demonstrating this application
5. You cannot use/resubmit any previous assignments. This assignment must be something new and of your own work.

**Task: Design & Build a Python application that links a GUI to a list of objects. You must submit a screencast video demonstrating the functionality of your application in action.**

**Notes:**

* There is no limit to what you can do but it **must involve developing an application that links a GUI to a list of Objects**
* **I have completed an application based on Student attendance, you should do a different application**
* Use the coding available on Moodle as a starting point, however your assignment must be original and there are no limits to what you can do.
* There is an example in Moodle that can be found in the section “**Sample Application***”*
* The are two deliverables, each with a separate Marking scheme:
  + Python Code (**70%** of total assignment mark)
  + A 5-minute screencast which will serve as a demonstration of the application **(30%)**

**Submission Date: Wednesday 17th of November 2021 @ 23:00**

**Submission Files:** Code, screencast and plagiarism form in 3 separate locations**.**

**ScreenCast Guidelines:**

* The screencast must be a **(3- 5 minutes)**
* The links to screencast-o-matic and tutorials are available on Moodle
* Screencast to be structured as follows:

1. Introduction: **Brief** description of what your application is about
2. A walkthrough (demonstration) of your application working with examples of its functionality
3. On screen briefly show and describe important aspects of the actual code including Key classes and some code snippets of key parts of code

**Submissions Links & files to be uploaded on Moodle:**

* **ScreenCast -** Submitted to the **Screencast** submission link
* **ZippedCoding –** Submit a **zipped copy of your code**
* scanned/photo copy of the **plagiarism form**

**Appendix Sample Application**

Graphical user interface, application, table

Description automatically generated

**class Student:  
  
 def \_\_init\_\_(self, name, ID, International):  
 self.\_\_name = name  
 self.\_\_ID = ID  
 self.\_\_present = 0  
 self.\_\_absent = 0  
 self.\_\_excused = 0  
 self.\_\_International = International  
  
  
 def getName(self):  
 return self.\_\_name  
  
 def getID(self):  
 return self.\_\_ID  
  
 def getPresent(self):  
 return self.\_\_present**

**def getAbsent(self):  
 return self.\_\_absent  
  
 def getExcused(self):  
 return self.\_\_excused  
  
 def getInternational(self):  
 return self.\_\_International  
  
 def getPercentAttendance(self):  
 if (self.\_\_present + self.\_\_absent + self.\_\_excused)==0:  
 return 0  
 else:  
 return int(100\*(self.\_\_present / (self.\_\_present+self.\_\_absent+self.\_\_excused)))  
  
 def markPresent(self):  
 self.\_\_present+= 1  
  
 def markAbsent(self):  
 self.\_\_absent+= 1  
  
 def markExcused(self, daysExcused):  
 self.\_\_excused+= daysExcused**