School of Science, Computing and Engineering Technologies

Object Oriented Programming

Distinction Task 6.3: D Level Custom Program Initial Plan

Overview

At this stage you should have enough understanding of programming to start thinking about creating your own custom program.

Purpose:	Plan out the overall structure for your custom program — this forms the start of your Custom Program for Distinction
Task:	Create a plan with high level overview to discuss with your tutor
Time:	This task should be completed before you start your custom program.

Note: If you are not currently up to date you should skip this task and return to it once you are up to date with the Pass and Credit Tasks. Do not allow Distinction Tasks to delay you in keeping up with the unit's Pass and Credit Tasks.

Submission Details

All students have access to the Adobe Acrobat tools. Please print your solution to PDF and combine it with the screenshots taken for this task.

- A basic overview of your program (see template)
- A picture of your class diagram (photo or scan)
- A picture of one or more sequence diagrams

Instructions

In this task you will provide a plan and overview of the structure of a custom program (something you would be interested in creating). Specifically it should:

1. Demonstrate the use of abstraction — create your own classes that model the domain.
2. Demonstrate the use of inheritance and polymorphism
3. Demonstrate the use of UML class diagrams to explain how your solution works.

Note: If you are aiming for a HD, you need to complete the HD custom program design *as well*. This plan describes the basics of your program, and the HD plan describes how it will meet the extra requirements of a HD level custom program.

Here are some steps to get you started:

1. Download the Design Report template.
2. Provide a summary of your program — What does it do? What are some of the key features etc.
3. Describe the main roles: enumerations, classes & interfaces.
4. Describe the main responsibilities for the classes and interfaces. Get some detail down now for your tutor to check, but there is no need to spend ages on this task. Have enough that you can start to see how the program will continue to develop as you proceed.
5. Show your plans to your tutor, lecturer, help desk staffers, and/or friends to get some feedback.

Note: Your program should be different from the Pass and Credit task programs and from the lecture demonstration programs. You want to demonstrate that you have learnt from these tasks and can apply what you have learnt to some other program design.

If you are aiming for a High Distinction, review the related High Distinction Project document for details on how you can ensure this program meets the HD requirements.