TITLE	CREATIVE COMPUTING		COURSE CODE	DCR2284
ASSIGNMENT-2	GROUP WORK (4 MEMBERS)		ASSIGNMENT WEIGHTING	20% OF COURSEWORK
DATE	WEEK-7		HAND-IN DATE	WEEK-12
			DEMO TIME	WEEK -12

Instructions:

This is a practical assignment. It is worth 20% of the marks for this course.

This assignment is designed to assess the learning objectives of the module; that a student should be able to:

Upon completion of the course, the student is able to:

CO2. Explain the importance origins of geometry to develop motion, images and sound.

CO3. Build the processing application to construct shapes, objects.

CO4. Write a coordinate transformations motion using processing.

Software on a CD -ROM (a ZIP disc will not be accepted), Or Submit through OL together with a ~~PRINTED copy of your report~~**, should be submitted via the School office, with an assessment cover form, by 3pm on Thursday, WEEK-14.**

WORK MAY BE HANDED IN EARLY, BUT NOT LATE!

This is a group assignment and students are reminded that the University College regulations for copying, collusion and plagiarism will apply.

BRIEF:
You are required to build a "virtual pet" which:

a) "Lives" on the hard drive and operates when selected by the user. Once the pet application is running, the pet should be able to elicit interactions and not simply respond to the user (e.g. it should be able to demonstrate that it is hungry or bored and ask to be fed or played with). In fact the pet could have considerable autonomy to act while the user is otherwise engaged on another desktop window, rather than just sitting waiting.

b) Can be interacted with (by the user) in ways which are intuitive and "natural", although the pet need not necessarily resemble an existing real creature. This will involve the creature interacting with on-screen objects manipulated by the user. The application should simulate or model real-world actions in a convincing/ engaging way. This particularly refers to the modelling of the way things move and behave rather than the way they look.

c) Can interact with at least one other creature (the same sort of creature as itself, or a different one) when the human user is not "playing" with it. This could be as part of a herd/tribe/swarm.

d) Will change its behaviour over time by learning and remembering, by adapting to the user and his/her typical actions or via the use of "evolution". Part of this change should include a visible (or audible) physical change, so that the user is aware of developments taking place. A creature might for example "grow" by increasing in size, changing shape or proportions (as with babies to adults) or by increasing in number (such as a swarm which acts together or follows each other)

TASK 1:

Develop a version of your virtual pet using *Processing*. This version must include the use of direct manipulation of objects and methods or 3rd Party API.

Note: You will be provide with a skeletal poke man with full source code for you to proceed with. However, you are not allowed to submit the exact code as your assignment question or copy the code as submission.

TASK 2:

Write a short report, not longer than 7 A4 pages, explaining what aspects of Classes were essential in developing this application and how they have been exploited in your design. Describe any ideas that you might have included but did not have time or did not know how to do. Finally, describe how your application might differ if it had been developed using animated software's instead.

TASK 3:

Every member in a group has to write a ***reflective report*** with at least one-page of A4-Sheet. Which includes, what you have learnt while solving the assignment, what data structure, classes, functions, transformation helps you to create the output, what was your contribution towards the assignment tasks.

Indicative Marking Guide

The following are indications of how marks are allocated:

Software:
Level of difficulty	(15 marks)
Pet behaviour	(10 marks)
Interactiveness	(10 marks)
Build quality	(15 marks)
Suitability	(5 marks)

Technical Report:
Class/data structure usage	(10marks)
Chosen Software Methodology	(10 marks)
Potential of animated software	(10 marks)
Report quality	(5 marks)

Demonstration: (10 marks)

    OVERALL MARK: **(100 marks)**
    WEIGHTED MARK: **(20 marks)**