Title: Code Design and Data Structures

Assessment Details: (please refer to your Class Schedule for actual date)

Start Date: Week 5, 2015

Submission Date: First day of Week 8, 2015

Assessment Date/s: Second and third day of Week 8, 2015

Assessable units of competency

ICAPRG415A - Apply skills in Object-Oriented Design

General description

In this project you will be creating the technical design specifications for the classic arcade game Donkey Kong.

This project is made up of two parts:

Part 1:

You are to create UML diagrams that will outline the design specifications of Donkey Kong. This includes a basic class diagram (including basic relationships between classes, as well as specification of class members and methods), a sequence diagram that demonstrates the interaction of classes within your game for a particular sequence of gameplay, and an activity OR state diagram that demonstrates program flow or the states of an object.

Part 2:

In part 2 you are to work in a group of 2 or 3 to refine the technical design. Part 1 **must** be approved before you begin part 2. The class diagram must be more detailed at this stage – it needs to showcase class member access levels, generalisations, specialisations and principles of aggregation and composition. You will also need to update your other diagrams to match with the changed class diagram.

Knowledge and skills

Listed here is the knowledge and skills you'll be learning and on which you will be assessed.

- Derive high level design from a specification
- Refine an existing design.
- Document designs in the form of UML diagrams.

Evidence specifications

This is the specific evidence you must prepare for and present on assessment day to demonstrate you have competency in the above knowledge and skills. The evidence must conform to all the specific requirements listed below.

1. Basic UML diagrams (Individual)
2. Detailed class diagram (group)
3. Refined UML diagrams(individual)

Your roles and responsibilities as a candidate

- Understand and feel comfortable with the assessment process
- Know what evidence you must provide during your assessment
- Take an active part in the assessment process
- Be ready for the assessment at the nominated time

Assessment rubric

This table defines exactly what is required to be successfully deemed competent.

Evidence	Definition of Competent for Code Design and Data Structures
1. Basic UML diagrams (Individual)	Competence in the basic UML diagrams task is defined as • A class diagram that includes basic relationships between classes and specification of class members and methods • A sequence diagram • An activity or state diagram
2. Detailed class diagram (group)	Competence in the detailed class diagram task is defined as • Class member access levels specified • At least one generalisation • At least one specialisation • Aggregation and composition relationships displayed
3. Refined UML diagrams (individual)	Competence in the refined UML diagrams task is defined as • An updated sequence diagram to match up with the group class diagram • An updated activity or state diagram to match up with the group class diagram

Assessment instructions for candidate

METHOD OF ASSESSMENT

Assessment will be conducted by you personally presenting evidence that demonstrates your competence in a short interview with your assessor. The evidence you must prepare and present is described above in this assessment criteria document. Assessments will be conducted on a specific day recorded above in this assessment criteria document.

ASSESSMENT CONDITIONS

You will have approximately 10 mins to present your evidence that demonstrates your competence. It is your responsibility to be prepared. If you have forgotten something or made a small mistake you may correct it, however the assessor may choose to assess other candidates who are better prepared and return to you if time permits. Upon completion of the assessment you will be issued with feedback and a record of the assessment, which you will need to acknowledge that you have accepted the result. If you are absent on the nominated assessment day (without prior agreement or a sufficient documented excuse) you will be assessed as not yet competent.

GRADING

The assessment you are undertaking will be graded as either *competent* or not *yet competent*.

REASSESSMENT PROCESS

If you are assessed as being not yet competent you will receive clear, written and oral feedback on what you will need to do to achieve competence. You will have one (1) week to prepare your evidence for a reassessment. You will be given only one reassessment opportunity. If you are unsuccessful after your reassessment you will be required to attend an intervention meeting with your Head of School to discuss your progress.

REASONABLE ADJUSTMENTS

We recognise the need to make reasonable adjustments within our assessment and learning environments to meet your individual needs. If you need to speak confidentially to someone about your individual needs please contact your teacher.