

MACQUARIE UNIVERSITY INTERNATIONAL COLLEGE
ASSESSMENT-1
Introduction to Computer Programming (WCOM115)

ASSESSMENT DETAILS

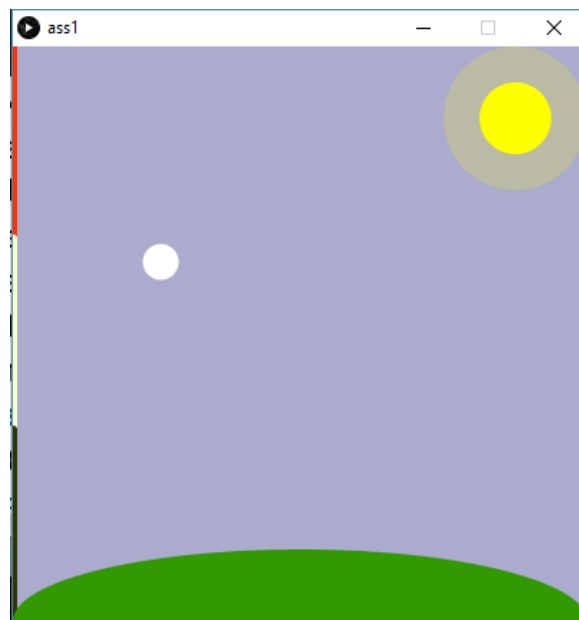
Unit Name:	Introduction to Computer Programming			Unit Code:	WCOM115
Assessment Task:	Assignment 1			Term & Year:	T1, 2018
Total # Pages:	4	Total Marks:	100	Weighting:	10%
Check point Due	Week 3, Monday (19/2/2018), 11.45 pm				
Final submission Due:	Week 3, Wednesday (21/2/2018) 23:45				

INSTRUCTIONS

Write a Processing program that meets the following requirements. Sample output on iLearn.

TASK A (40 marks)

1. Display a window of size 400 by 400 with a blueish background (like **sky** colour).
2. There is a part of an ellipse appears at the bottom of the windows as if it is a **grassy hill**. The colour of this ellipse is dark green (like grass colour).
3. In the sky, there is a yellow **sun** with diameter 50, the sun has a yellow glow with diameter 100.
4. At the height of 150 from the top edge of the window, there is **a moon** (white ellipse with diameter 25) the **moves** from the left edge of the window to the right edge, then appear again from the left (please see the video to see this movement).
5. There are **two vertical lines** (thickness = 5) drawn on the left and right edges of the window, only vertical half of the thickness of the lines can be seen at the beginning. Each line is divided into three equal parts coloured red, white and black.
6. There is a **shade transparent layer** (50) the covered the whole area between the tow-colored lines.



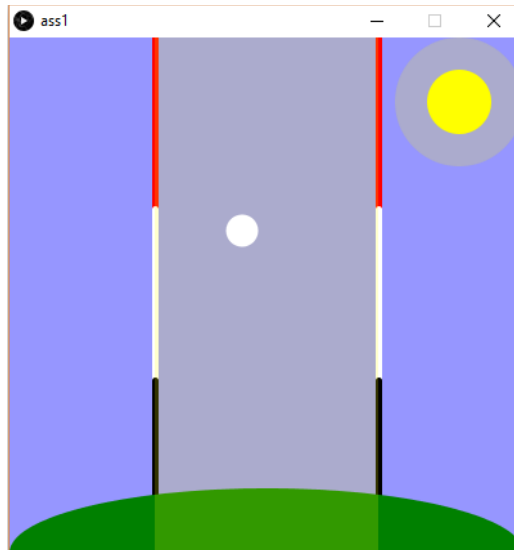
TASK B (25 marks)

7. When mouse wheel is rotated (in any direction) the moon will move vertically down a bit toward the grassy hill (while it is still moves horizontally). The more mouse wheel is rotated the more the moon falls till it disappears from the bottom edge of the window.

TASK C (20 marks)

8. When the mouse clicks anywhere in the left half of the window, the left coloured line (with three colours red, white and black) will be drawn vertically at the location of mouse click, while the right coloured line will be draw in width – x coordinate of mouse click.
9. The shade transparent area will be resized to fit the area between the two vertical lines
10. When the mouse clicks on the left coloured line and dragged, the left coloured lines with move wherever the mouse moves while being dragged, the right coloured line will move accordingly with width – left line position. The transparent area will be resized accordingly.

For example, of the mouse is clicked on point (50, 100), the left vertical coloured line will be draw on x-coordinate 50 pixel from the left, while the right line will be draw on x-coordinate $(400-50) = 350$



TASK D (15 marks)

11. After a mouse click or drag, the moon will keep moving horizontally ONLY between the two vertical lines (please watch the video for demonstration to this movement). Please keep in mind that conditionals and loops are not to be used in assignment-1.

Please Note: To get the mark of this task, please do not use conditionals or loops instead use arithmetic operators.

NATURE OF THE TASK

This is an individual task.

HURDLE ASSESSMENTS

This is NOT a hurdle assessment.

MATERIALS REQUIRED / SUGGESTED RESOURCES

Lectures week 1, Textbook chapters 1 to 4.

HOW TO PRESENT YOUR ASSIGNMENT

Write your assignment as a Processing source file with the name **ass1.pde**

SUBMISSION INSTRUCTIONS

Submit the source file ass1.pde on iLearn under Assignment 1 Submission.

LATE SUBMISSIONS

Late submissions are possible and will be penalised at 20% of assignment total mark per day up to 4 days (weekend inclusive).

If a student submits an assessment 5 or more days after the due date without grounds for special consideration (See [Disruptions to Studies Policy](#)) a record of submission will be made but the student will receive zero marks for the assessment task.

RETENTION OF RECORDS

Students are required to keep a copy of all items submitted or completed for the purpose of assessment or evaluation until the end of the grade appeal period.

INFORMATION ABOUT HOW AND WHEN FEEDBACK WILL BE PROVIDED

Marks and feedback will be provided via iLearn.

ACADEMIC HONESTY

Using the work or ideas of another person, whether intentionally or not, and presenting them as your own without clear acknowledgement of the source is called [Plagiarism](#).

Macquarie University promotes awareness of information ethics through its [Academic Honesty Policy](#). This means that:

- all academic work claimed as original must be the work of the person making the claim
- all academic collaborations of any kind must be acknowledged
- academic work must not be falsified in any way
- when the ideas of others are used, these ideas must be acknowledged appropriately.

All breaches of the [Academic Honesty Policy](#) are serious and [penalties](#) apply. Students should be aware that they may fail an assessment task, a unit or even be excluded from the University for breaching the Academic Honesty Policy.

EXPECTATIONS OF STUDENTS

Students are responsible for their learning and are expected to:

- actively engage with assessment tasks, including carefully reading the guidance provided, understanding criteria, spending sufficient time on the task and submitting work on time; Read, reflect and act on feedback provided;
- Actively engage in activities designed to develop assessment literacy, including taking the initiative where appropriate (e.g. seeking clarification or advice, negotiating learning contracts, developing grading criteria and rubrics);
- Provide constructive feedback on assessment processes and tasks through student feedback mechanisms (e.g. student surveys, suggestions for future offerings, student representation on committees);
- Ensure that their work is their own; and
- Be familiar with University policy and faculty procedures and act in accordance with those policy and procedures.

MARKING CRITERIA

You will be assessed according to the criteria provided below.

Marking Criteria	Mark
TASK 1	
Correct window size and background	5
There is a green part of an ellipse	5
There is a yellow ellipse as a sun	5
The sun has a yellow glow	10
There is a while ellipse with correct size and position that continuously moves horizontally	15
TASK 2	
With mouse wheel, the white ellipse moves steadily downward	10
No movement downward when there is no mouse wheel rotation.	10
The white ellipse keeping moving vertically while moving down	5
TASK 3	
When mouse is clicked, the left line is drawn at the x-coordinate of mouse click	5
When mouse is clicked, the right line is draw at the correct position	5
When mouse is dragged, the left line will follow mouse movement	5
When mouse is dragged, the right line will move according to specification.	5
TASK 4	
The whole white ellipse moves only between the two lines.	15

NOTE:

- Up to 20 marks penalty will be applied if coding style is not good. This includes:
 - Variable names
 - Commenting
 - Indentation
- 10 marks penalty will be applied if the file submitted does not have file name as (ass1.pde)