

## Assignment (50%) - Programming Concepts

### Overview of assignment

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- This is your assignment.
- You are asked to write a working animation.

### Specification

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This is the specification of your second summative assignment i.e. the grade for this assignment will go towards your final module mark. This specification will describe:

- What is expected from your code
- The marking scheme for the assignment.
- Submission details including submission date.

### Assignment Advice

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- Read the specification carefully.
- Start working on the assignment early.
- When you think you are ready to submit check the following:
  - Ensure you have **ALL** covered all the elements mentioned in the marking scheme
  - Ensure specifically that your indentation is consistent.
  - Write **COMMENTS** to explain what any methods do and how any particularly tricky code works and what it does.
  - Ensure that your name, student number and description of what your code does is written in the **READ ME** tab.
  - Ensure that you have named the submission (zip) file according to the prescribed naming convention.

### Specification

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In this assignment, you are asked to write code to produce a working animation of your choice in Processing (Java).

The aim of the assignment is for you to demonstrate your understanding of structures seen so far, so you are asked to include the following:

- The usual Processing class containing the draw(), setup(), etc.
- Use of If statements.
- The use of loops (for, while, AND do while).
- Use of methods (including different return types, different parameter lists etc.).
- Use of primitive arrays.
- User input.

The complexity of the entire code is important, i.e. the more complex the code, the more marks you will achieve (See marking scheme).

### ***Marking Scheme***

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There are two components to your overall mark:

- Structure of code
- Complexity of code

### ***Structure of Code (100 Marks)***

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- Good working animation i.e. inclusion of the usual Processing class containing the draw(), setup(), etc (10 marks)
- Comments, indentation, naming, structure of code, readme tab etc (5 marks)
- Complexity of code (10 marks)
- Use of user defined methods (different return types, parameter lists etc) (20 marks)
- User input (5 marks)
- Use of If statements (20 marks)
- Use of loops (20 marks)
- Data structure (arrays):
  - Use of a data structure to store information i.e. a primitive array (12 marks).

### ***Handup of submission***

#### **Date**

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The submission is due by Friday 18th December by 17:20 SHARP (if you are finished it earlier upload it and concentrate on your other exams!!).

#### **Where**

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Uploading the file on Slack directly sending it to the lecturer.

#### **File naming convention**

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Your file should be contained in a sketchbook named according to the rule: first name + second name, e.g. Caio Fonseca sketchbook would be called CaioFonseca. You should then compress (zip) the folder that contains this sketchbook (CaioFonseca) and this is the file that you should submit.

#### **readme tab**

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You should include a readme tab in the sketchbook that you use to write the following information in the following format:

/\* Name : Student Number: Programme Name:

Description of the animation achieved:

Known bugs/problems:

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