

UNIVERSITY OF GLAMORGAN
Assessment Cover Sheet and Feedback Form
2013/14

Module Code: CS4S703	Module Title: Advanced Data Structures and Algorithms	Lecturer: Gaius Mulley
Assignment no: 1	No of pages:	Maximum word count: 3000

Assignment Title: Fractions
 Tasks outlined on page 2

SECTION A: RECORD OF SUBMISSION

Record of Submission and Plagiarism Declaration

I declare that this assignment is my own work and that the sources of information and material I have used (including the internet) have been fully identified and properly acknowledged as required in the referencing guidelines provided.

Fit to Sit Policy

The University operates a Fit to Sit policy whereby all students, in submitting or presenting themselves for any assessment, are declaring that they are fit to sit the assessment. Students cannot subsequently claim that their performance in that assessment was affected by extenuating circumstances.

You are required to acknowledge that you have read the above statement by writing your student **enrolment number here:**

Details of Submission

Note that all work handed in after the submission date and within 5 working days will be capped at 40%. No marks will be awarded if the assignment is submitted after the late submission date unless mitigating circumstances are applied for and accepted.

- IT IS YOUR RESPONSIBILITY TO KEEP A RECORD OF ALL WORK SUBMITTED.
- An electronic copy of your work **must** be submitted via Blackboard.
- However your submitted electronic copy of your coursework **must** be in the **pdf** format as **all** other document formats **will** be ignored by the lecturer. One method to generate a **pdf** version is to open up a MS Word document in OpenOffice and export as **pdf**.

Mitigating Circumstances: if there are any exceptional circumstances which may have affected your ability to undertake or submit this assignment, make sure you contact the Faculty Advice Shop on 01443 482540 (G221).

Assessment Title: Fractions

There are three components to this coursework, the first is to add as many symbolic rule reductions as you feel necessary to the symbolic fraction class discussed in lectures. The starting code can be found on github (<https://github.com/gaiusm/examples>). There is some test code found under the directory matrices which will use your symbolic fractional data type to perform some rotation transformations. If your code has enough symbolic reduction rules then the test code should print a final matrix containing fractional constants values only.

The second task is to implement a garbage collection class based on mark and sweep as explained during lectures.

There will be extensive help given during tutorial/laboratory times throughout the duration of the coursework. However the tutorial help will be concentrated on the first task, you are expected to work independently of the lecturer to solve parts two and three. Although there will be a detailed discussion on part two during the lecture series.

Lastly you should analyse and appraise this technique. You should explain your code and any relevant data structures. Your report excluding code and commentary must not exceed 3000 words.

Section B: Marking & Assessment

The assignment will be marked out of 100%

The assignment contributes to 50% of the total module marks

This assignment is non bonded

It is estimated that you should spend approximately

50 hours on this

coursework

Date Set: 05 11 2013

Submission Date: 07 01 2014

Feedback Date: 04 02 2014

Learning Outcomes	
<p>This assignment addresses the following learning outcomes of the module:</p> <p>demonstrate a critical understanding of the concepts associated with applying and implementing a variety of data structure algorithms to create data structures and appraise their role of in producing software solutions to non-trivial programming problems</p>	
Hours of Work	Number of Hours
1. Number of hours of work that this assignment should take:	50
2. Please indicate the number of hours actually taken:	
Marking Scheme	Marks Available Marks Awarded
Fraction code implementation	30
Garbage collection implementation	30
Analysis of technique	40

ASSESSMENT CRITERIA

Performance Level	Criteria
Fail (<40%)	A fail grade will be awarded for an answer which contains major errors and shows little understanding of the issues involved
Pass (40%-49%)	A pass grade will be awarded for an answer which addresses the majority of points with few errors or omissions.
Pass (50%-59%)	An average grade will be awarded for answers which contain no major errors or omissions.
Merit (60%-69%)	A higher mark can be achieved if the work contains no major errors and also contains an analytical answer.
Distinction (70%+)	A high grade will be awarded for work which includes the earlier criteria and contains a high quality analysis of issues from a range of source materials and makes some original contribution on the subject.

Section C: Markers Feedback

Lecturer's comments:

Areas to concentrate on next time:

Report structure

Research

Content

Team work

Referencing

Presentation

Lecturer's signature:

Date:

Mark awarded:

All marks are subject to confirmation by the Board of Examiners

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FACULTY OF ADVANCED TECHNOLOGY**

2017

INTERNAL MARKING MODERATION FORM

COURSEWORK DETAILS

Module Code: CS4S703
Algorithms

Module Title: Advanced Data Structures and

Coursework Title: Fractions

Date of Issue: 05 11 2013

Submission Date: 07 01 2014

Module Leader/Lecturer: Gaius Mulley/ Gaius Mulley

Percentage contribution to final mark: 50%

MODERATORS COMMENTS

Checklist: Conformity with standard frontsheet (Yes)
Student instructions including outline marks per section (Yes)
Appropriate marking schemes (Yes)
Level/Academic standard of work (Yes)
Module outcomes are being assessed (Yes)
Appropriate time to complete (Yes)

General Comments:

Coursework looks to be challenging and of an appropriate standard.

Internal Moderator: Janusz Kulon

Signature of Moderator:

Date: 04 11 2013

Response and Action to Moderators Comments:

Thank you

Signature of examiner: Gaius Mulley

Date: 04 11 2013

Final Signature of Internal Moderator:

Date: 04 11 2013

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2017

EXTERNAL EXAMINER COURSEWORK MODERATION FORM

COURSEWORK DETAILS

Module Code: CS4S703
Algorithms

Module Title: Advanced Data Structures and

Coursework Title: Fractions

Date of Issue: 05 11 2013

Submission Date: 07 01 2014

Module Leader/Lecturer: Gaius Mulley/ Gaius Mulley

Percentage contribution to final mark: 50%

EXTERNAL EXAMINER'S COMMENTS

Signature of External Examiner:

Date:

Response by Examiner to External Examiners Comments:

Signature of Examiner:

Date:

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2017

INTERNAL MARKING MODERATION FORM

Module Code: CS4S703
and Algorithms

Module Title: Advanced Data Structures

Module Leader: Gaius Mulley

Assessment: Coursework 1 (50%)

MODERATORS COMMENTS

Sampling undertaken: Yes

Scripts sampled: 3

Scripts in total: 14

General Comments: Fine

Checklist: Scripts marked to outline marks per section (Yes)
Level of marking appropriate (Yes)

Moderator: Janusz Kulon

Signature of Moderator:

Date: 04 02 2014

Response and Action to Moderators Comments:

ok, thank you

Signature of Module Leader:

Date: 04 02 2014

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2017

EXTERNAL MARKING MODERATION FORM

EXTERNAL EXAMINER'S COMMENTS

Examiner:

Signature of Examiner:

Date: