Final mark	awarded:
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Faculty of Computing, Engineering and Science

Assessment Cover Sheet and Feedback Form - Resit 2017-18

Module Code:	Module Title:		Module Lecturer:		
CS4S765	Game Engine Optimisation		Gaius Mulley		
Assessment Title:			Assessment No.		
Extending chisel (August)			2		
No. of pages submitted in total including this page:			Word Count of submission		
Completed by student			(if applicable): Completed by student		
Date Set: Submission Date:		Submission Date:	Return Date:		
21-Jun-2018 00:00:00		L-Aug-2018 23:59:00	29-Aug-2018 23:59:00		

Part A: Record of Submission (to be completed by Student)

Extenuating Circumstances

If there are any exceptional circumstances that may have affected your ability to undertake or submit this assignment, make sure you contact the Advice Centre on your campus prior to your submission deadline.

Fit to sit policy:

The University operates a fit to sit policy whereby you, in submitting or presenting yourself for an assessment, are declaring that you are fit to sit the assessment. You cannot subsequently claim that your performance in this assessment was affected by extenuating factors.

Plagiarism and Unfair Practice Declaration:

By submitting this assessment, you declare that it is your own work and that the sources of information and material you have used (including the internet) have been fully identified and properly acknowledged as required¹. Additionally, the work presented has not been submitted for any other assessment. You also understand that the Faculty reserves the right to investigate allegations of plagiarism or unfair practice which, if proven, could result in a fail in this assessment and may affect your progress.

Intellectual Property and Retention of Student Work:

You understand that the University will retain a copy of any assessments submitted electronically for evidence and quality assurance purposes; requests for the removal of assessments will only be considered if the work contains information that is either politically and/or commercially sensitive (as determined by the University) and where requests are made by the relevant module leader or dissertation supervisor.

Details of Submission:

Note that all work handed in after the submission date and within 5 working days will be capped at 40%². No marks will be awarded if the assessment is submitted after the late submission date unless extenuating circumstances are applied for and accepted (Advice Centre to be consulted).

	Student Number(s):
You are required to acknowledge that you	(-)
have read the above statements by writing	
your student number(s) in the box:	

¹ University Academic Misconduct Regulations

²Information on exclusions to this rule is available from the Advice Centre at each Campus

IT IS YOUR RESPONSIBILITY TO KEEP RECORDS OF ALL WORK SUBMITTED

Part B: Marking and Assessment (to be completed by Module Lecturer)

This assignment will be marked out of 100%

This assignment contributes to 50% of the total module marks.

This assignment is bonded

Learning Outcomes to be assessed (as specified in the validated module descriptor https://icis.southwales.ac.uk/):

1) Demonstrate the ability to analyse and critically evaluate techniques used to optimise game engines2) Demonstrate the ability to analyse, create and evaluate game engine code

Feedback/feed-forwardAreas where you	ward (linked to assessment criteria): have done well:			
Feedback from th	is assessment to help you to improve futu	re assessments:		
Other comments				
Mark:	Marker's Signature:	Date:		
Work on this module has been marked, double marked/moderated in line with USW procedures.				
Provisional mark or	nly: subject to change and/or confirmation Board	by the Assessment		

	Part C: Reflections on Assessment (to be completed by student – optional)				
Use of previous feedback	(:				
In this assessment, I have previous work:	taken/took note of the following points in feedback on				
Please indicate which of submitted work	the following you feel/felt applies/applied to your				
	ot. I could have developed some of the				
	playing my understanding and learning, with				
 A very good attempt 	. The work demonstrates my clear				
scholarly work with	e learning supported by relevant literature and good analysis and evaluation.				
	t, with clear application of literature and onstrating significant analysis and evaluation.				
What I found most difficult about this assessment:					
The areas where I would value/would have valued feedback:					

	Fail	Narrow Fail	3rd Class / Pass		Upper 2nd	1st Class /
\r	.,	5 \ 7 \ 1	0	Class / Pass	Class / Merit	Distinction
Visportal	Very poor	 Poor Visportal 		• Good	Very good	Excellent
implementation	Visportal	implementa	Visportal	Visportal	Visportal	Visportal
40%	implementa	tion.	implementa		implementa	
	tion. Work	Visportal	tion. The	tion. The	tion. The	tion. The
	barely	implementa	visportal	visportal	visportal	visportal
	started	tion is	implementa	implementa	implementa	
		fundamenta	tion works	tion works	tion works	tion works
		lly flawed	but is an	and is	and is	and is
			inelegant	elegantly	elegantly	elegantly
			implementa	implemente	implemente	
			tion	d. No	d. Minimal	d.
				performanc	performanc	Excellent
				e (fps)	e (fps)	performanc
				analysis	analysis	e analysis
				was given	was given	was given
Introduction of	 Very poor 	 Poor 	 Satisfactory 	 Good 	 Very good 	 Excellent
sound to chisel	Introduction	Introduction	Introduction	Introduction	Introduction	Introduction
30%	of sound to	of sound to	of sound to	of sound to	of sound to	of sound to
	chisel.	chisel.	chisel. The	chisel. The	chisel.	chisel.
	Work	Sound	sound	sound	Sensible	Excellent
	barely	introduction	introduction	introduction	design but	design and
	started	in chisel	would work	works but	there	also
		fundamenta	but would	borrows	maybe	excellent
		lly flawed	be very	little from	some	implementa
			limited	the lighting	inelegant or	tion
				idea	lacking	
					implementa	
					tion	
Detailed	 Very poor 	 Poor Detailed 	 Satisfactory 	 Good Detailed 	 Very good 	 Excellent
description of	Detailed	description	Detailed	description	Detailed	Detailed
lights	description	of lights.	description	of lights.	description	description
30%	of lights.	Poor	of lights.	No major	of lights. A	of lights.
	Work	understandi	The design	errors in	good	An
	barely	ng of how	of lights is	the design	design	excellent
	started	lighting is	mostly	document.	which	design
		handled in	accurate -	But there	contains no	document
		chisel	but there	maybe	major	produced
			maybe	elements	errors or	which
			some minor	missing	omissions.	covers all
			errors		Detail could	
					be	contains
					improved	deep detail

Assessment Task:

The aim of this coursework is to extend the chisel free software package which allows doom3 maps to be built from the command line.

Chisel changes

Your extensions to this package should primarily be directed towards the two tools txt2pen.py and pen2map.py.
Your task is to:

(i) provide a detailed description of how lights are introduced by the user in a txt map and how these lights

end up in the map file (which is read by doom3). You should look at how txt2pen and pen2map handle lights.

You should also discuss how the user can change lighting from a txt map source file.

- (ii) using your knowledge of (i) how would you change chisel to incorporate sounds. You should provide detail and code if possible.
- (iii) implementing open doors between rooms (using visportals). Make this change switchable from the command line.

The chisel software can be obtained using git:

git clone https://github.com/gaiusm/chisel

Your submission must be a report of up to 2000 words. You should include screenshots and all the code which you change or write.