CS4303 2015/16 — Practical 3

Game Implementation

Tristan Henderson and Ian Miguel
cs4303.lec@cs.st-andrews.ac.uk

You should read the whole of this document, and review appropriate parts of the lecture notes and other documents provided before starting work on the practical.

This practical carries 50% of the coursework credit for this module (7.5 credits). The laboratory practicals later in the semester may build on this one. You may wish to do preparatory work before your session, on your own computer, or in the lab (but note that those on scheduled practical sessions have priority).

Overview

Implement a game in the Processing environment, based upon your design document (or a revision thereof) from Practical 2.

You should expect to have a draft of your code ready by Monday 30th November so that your test group can install your game on their tablets or workspaces. This will allow a week for testing and feedback from your fellow players/students. We will provide further instructions about the evaluation process in due course.

The formal submission for this practical is Monday 7th December. Note that this is **during the exam period**; however, as there are no exams for this module you are expected to spend your time working on this practical.

The components of your submission are as follows:

- The source code for your project. This should be well-presented and commented and in a form that can be compiled by the lecturers.
  - In addition, if the platform for your game is the tablet, the tablet you have been loaned for development should be submitted to the School Office **with your game installed**. Any personal data should be removed from the device before it is handed in.
- A revised design document that reflects the final submitted game.
- A player's manual for your game. This should be up to one side in length and explain how to play the game.
- A document of up to 1,500 words describing how you tested and evaluated your game, and how you incorporated the feedback from your testing into your final game. Week 12 is dedicated to evaluation. You have been divided into groups (see below) and you are expected to test everyone else's game in your groups. You can also recruit other students (and indeed members of staff if you can convince them) to help evaluate your games.
- A 750-word essay reflecting on the process of designing and implementing the game. This should explain any design decisions, any testing which took place to drive these design decisions, highlight

those aspects of the game of which you are most proud, and discuss what you would have done if you had more time.

When assessing your submissions, we will be looking for:

- gameplay elements: does the game have suitable players, rules, goals, opponents and a world?
- design: is there evidence that the game has a design?
- testing: have you tested your game with other people? Have you incorporated feedback from this testing?
- suitability: is the game appropriate for your chosen platform?
- networking, AI and physics: your game may not involve all of these, but if it does, the design and implementation should be appropriate and work well.
- security: can players cheat in your game? If so, how (referring to the taxonomy covered in lectures)? A good submission should attempt to deal with one or more mechanisms for cheating (and indeed, such attempts may include encouraging cheating rather than deterring it).
- code quality?
- report: a well-written report and manual is expected.

Mark descriptors

Generic mark descriptors can be found in the CS Student Handbook.

For this practical:

Mark Band	*Descriptor*
0	No material submitted
1-6	A submission that fails to complete any of the required sections listed above
7-10	A reasonable attempt at a game with elements, some evidence of design and testing
11-13	A competent attempt at all relevant sections
14-16	A good attempt that results in a playable and suitable game, fulfilling all of the relevant sections
17-20	An excellent game that is playable, well-designed well-tested, and has high-quality code and report (i.e., excels in all of the relevant sections)

Testing groups

Group 1
120011780 (lm225)
120002741 (rn30)
120013370 (pc55)
Group 2
120024309 (ss255)
130002062 (ejjb)
120014299 (va9)
Group 3
120013079 (jm269)
120011732 (fssg)
120008451 (ag215)
Group 4
120008200 (jr79)
120022239 (tg33)
120006063 (ajw28)
Group 5
120008077 (pjc8)
120013631 (amb32)
120012784 (rc65)
Group 5
110010046 (mm246)
120003040 (hrd2)
120008087 (cl94)

Handing in

Submissions should be made through MMS. Remember that late work will be penalised as per the standard lateness penalties. Note that reports **must** be submitted in PDF — any other forms of document will be rejected and resubmissions will have lateness penalties applied.

Due date: **2015-12-07 21:00:00**.

The University's Good Academic Practice policy (https://www.st-andrews.ac.uk/students/rules/academicpractice/) applies to this piece of coursework.