

Assignment 4, Due Thurs 6 April 2006, 11.30am. Worth 40% of CA.

Topic. Team Project: Constructing a 2D Game.

This assignment is a team project and involves Brackeen's 2D platform game. Each team is required to make some simple alterations to the basic game engine and to design their own levels (minimum two).

Teams.

1. Browne, Joseph; Burke, Lee; Collins, Ronan; Greene, Bernard; Hogan, Raymond.
2. Conneely, Daryl; Griffin, Joe; Kearney, Damien; Kearney, Ryan; Lynch, Mark; Riozzi, Giancarlo.
3. Kilbride, Emma; McArt, Patrick; McLaughlin, Peter; McGeehan, Mark; Toner, Daniel; Murray, Diarmuid.
4. Quinn, Kieran; O'Donnell, Hugh; O'Donnell, Shane; McClintock, Jason; Scott, Andrew; Sharkey, Joseph; Stewart, Dariaus.

Phases and Deliverables.

Proposal Each team will be required to produce a **written** proposal by 9th March 2006. In addition, a member of the each team will give a brief presentation on the proposal; all members of the team should be present. The proposal must give clarity on what is to be attempted. If proposals are unclear or not properly justified and explained, I reserve the right to ask for a resubmission one week later. Venue Room 1408. Timetable: Team 1, 11.35am; Team 2, 11.45am; Team 3, 11.55am, Team 4, 12.05am. Bring a paper copy of the proposal to the presentation.

The proposal is worth 15% of this CA item.

Game Software, Documentation (website) and Presentation, Demonstration and Work Logs Due Thurs 6 April 2006, 11.30am.

1. This part is worth 85% of this CA item.
2. The game should be executable as a JAR file.
3. The source software, images, audio, etc. should be in the same folder structure as Brackeen's chapter 5.
4. The website should be viewable by a normal browser. Please consult with me before depending on any special server-side or client-side software.
5. The team work logs, containing individual work logs, should be contained in a bound document with a list of team members and signed off by every team member. Marks will be allocated to students according to these logs and to my attendance sheets and my logs of progress. The normal situation will be that I will award X % (e.g. 75 %) for a team's project, then each student will get receive 75 %. However, for example, if I determine that a student has participated only half of the time or in only half of the progress, that student will be awarded 37.5 %.
6. Individual work logs should be completed for each practical or other work session; I need to be able to inspect these from week to week. These should be in diary form in a simple text or Word document:

Date. xth march 2006. Time spent: 95 minutes.

Work contributed to project: ...

Specification.

- Technical Specification**
1. Brackeen's basic 2D platform engine (chapter 5) must be used.
 2. The modifications should include at least:
 - (a) Two or more levels;
 - (b) Modified levels including tiles, sprites and background;
 - (c) New sounds;
 - (d) Added Sprite (or Creature or Player or Tile) behaviour; I will give a short lecture on the Sprite - Creature - Player classes and how to add, for example, a *health* state and associated behaviour.
 - (e) The website should contain a UML representation of the interrelationships of the classes involved. I can give some help on UML. We do not require detailed UML diagrams of individual classes, except where modifications have been made to the interface of a class, or where a new class has been developed.
 3. 20% of the marks for the final deliverable will be allocated to special innovation, inventiveness, and ability to solve problems and *knowing how to get help in solving problems*. In other words, a well done game that meets just the minimum specifications and has a complete website would gain about 65% (out of 85%).
 4. The game should be the work of the team; at least one team member should be responsible for each notable innovation; if there is an innovation which a team cannot properly explain, this will detract severely from the overall mark.

- Team Organisation**
1. Team leader. Each team should elect a team leader. That team leader should provide me with an email address by which he/she can be contacted regarding the conduct of the project. It is expected that team leaders will be able to convey messages from me to members of their team.
 2. Webmaster;
 3. Technical leader may be different from team leader;
 4. Artistic director;
 5. Producer.

Lectures and Practicals Between now and April 7, practicals will be devoted entirely to this project. Tuesday and Thursday lectures will proceed as normal and will be used to revise stuff that has caused difficulty; on some occasions, for example Thurs. 2nd March, I'll give a lecture on the construction of Brackeen's game and how modifications could be made. Thurs. 9th March lecture will be devoted to proposal presentations; each team will present to me with other teams absent.

- Some Project Management Hints**
- Evaluate and analyse risks as early as possible; i.e. list in order what you think most difficult tasks and why; resolve the most difficult first; for example, if you do not have the requisite web skills, resolve that, maybe discuss with me; likewise if nobody on the team knows UML;
 - Plan to secure the major payback before you engage in the fancy stuff (i.e. make sure you get the 65%);
 - I will deduct marks from projects that do nothing at first and then engage in a big panic at the end; my willingness to assist you, or get assistance for you, will be high at the start, but will diminish to zero by the last week;
 - Be careful about spending time on things for which there are no marks; likewise do not go overboard on one single aspect of the game — you cannot get more than 100% for any aspect / component.
 - Backups. Backups are ultimately the responsibility of the team — not of LyIT Computer Services. In other words, if you lose a project on the last day and have nothing to demonstrate, you will get low marks and no sympathy.