Paint-Splat!

Assignment Due: Week 7, 13th November

Overview

In this project, the multi-player game's goal is to get the most paint splats on a shared paint board within a designated time period. There should a central Paint Board, onto which multiple, mobile players throw paint. After an agreed period of time, the game stops, and the player with the most paint "hits" wins!

Points to consider:

- The paint board moves around the space randomly, and should take up no more than 25% of the visible screen;
    - Movement may increase in speed as time passes, or
    - You may define multiple levels with different speeds
- Each player is assigned a different colour of paint;
- Throwing paint at the paint board should involve using the "arrow" keys (or some other designated key strokes) to move the cursor around the space before a "throw" key stroke;
- After the first throw, a player may not throw again until there is confirmation (visual on the thrower's screen) that the throw was a "hit" or "miss". If the throw was a "hit", then a small coloured circle should appear on the paint board, visible to other players;
- There should be no overlapping of circles on the board

This project is to construct a multiplayer and distributed version of the Paint-Splat! game **suitable for play by mobile players**.

The Assignment

Technical:
Design and build a mobile multiplayer version of Paint-Splat!. Players play concurrently on a single Paint Board. You are free to devise any system architecture. Games should continue even in the presence of only a single player. You may use any appropriate middleware. You should make provision for the game to be downloadable and easily installed by potential players so that a new game can be initiated on the fly between players who have only just met each other.

Process*:*
Given the online nature of group work this year, this assignment is designed to allow students investigate and try out ways to write code collaboratively, including means to support:

- pair programming (i.e., two people working on the same code at the same time), and

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- group participation (i.e., multiple pairs in the same team working at the same time, with capabilities to communicate with the whole team to discuss design/coding options, at any time during your coding session.

Please investigate collaborative programming tools, such as CodeAnywhere (IDE designed for agile) or others.

You should add your coding schedule for this project to the Google Drive, in a folder called:
"CS7CS3 Project1 Schedules"

Please name your file:

"Group<n>-project 1 schedule", where n is the number of your group.

Deliverables:

- Working, demonstrable code, and a document containing the design of the system. You should use UML diagrams (or other graphical modelling languages) where appropriate to capture the design. You will be asked to demonstrate to either the lecturer or demonstrators
- Description of the process you followed for working together, including descriptions of how the collaborative software you used worked for your team.

Completing the Assessment

Students should attempt the assessment in groups. Any problems should be reported to the course lecturer/demonstrators as soon as possible.

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