Simulation in Games and Medicine:
Session 04:
Pong 1

Contents

Preparation

Please read the source code of the "`Pong`" game and understand the game logic.

Task

Please extend the game.

- Update the scene:
    - As the playground has a fixed size, the scene should not be resizable. Change this property in the project settings.
    - To add some additional stuff to the game, increase the scene height to 500.
    - Add a panel to the scene to cover the extended space.
    - Add four labels to count the points of the players, two on the left side of the new panel and two on the right side.
    - On each side, use one label to show static text like "`Points of Player A:`", and use the other one to display the points during runtime.
    - Add one label in the middle of the panel to show the final result.
    - Add one button to the panel to restart the game.

- Update the script:
  - Adjust the game so that the paddles can only move in the old area.
  - Update the corresponding label points when the ball hits one end of the playing area.
  - The ball starts randomly toward left or right whenever it is reset.
  - The game ends when one player wins 3 points. In this case, the ball stays at the middle position, and the label in the middle should display which player wins the game.
  - When the restart button is pressed, all objects in the scene are reset to the initial status.