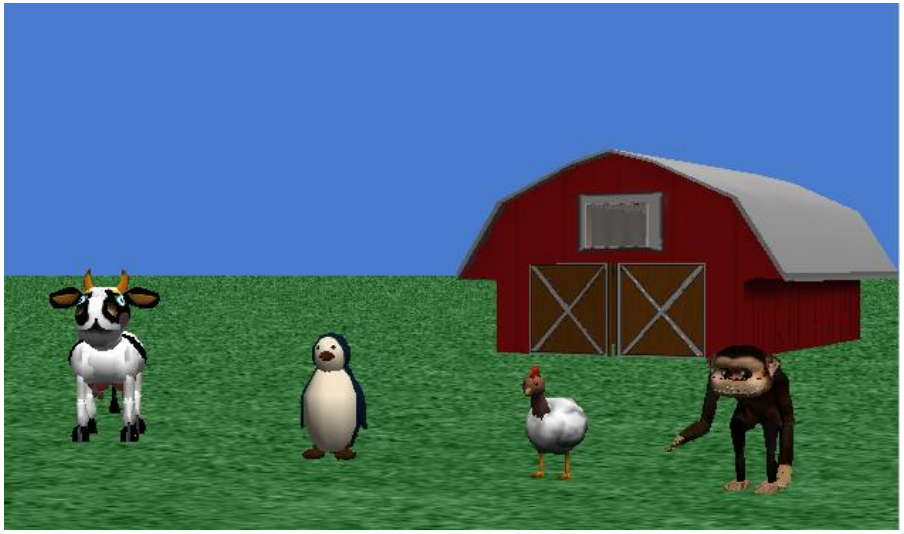
CompSci 18S
Problem Solving
Nov 12, 2007

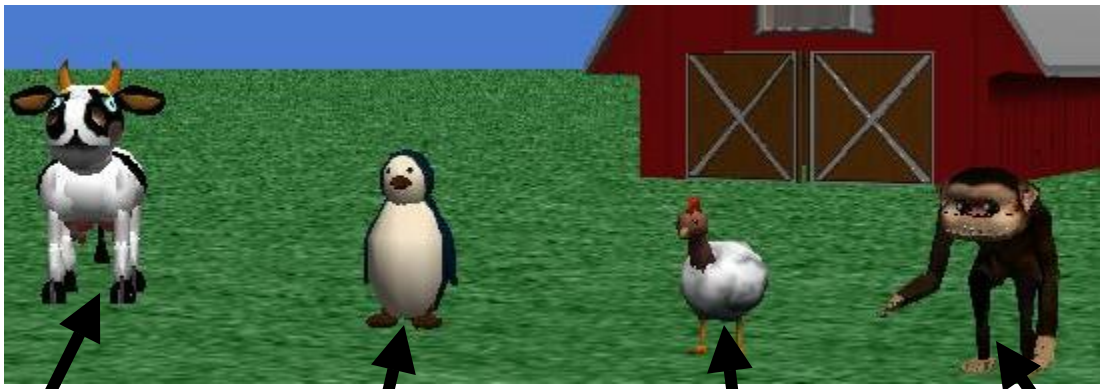
What we will do today



- Classwork – GateKeeper Problem
  - There are four players standing facing you
  - One of the players is the Gate Keeper - random
  - When the GateKeeper is on the far right, the game is over
  - To move players, click on a player, it swaps with the player furthest away
  - DEMO

Implementation

- Objects: Cow, Penguin, Chicken, Monkey



- tennisBall, tennisBall2, tennisBall3, tennisBall4
- The Balls mark the spot where a player should stand, the balls should not move

Setup

- Randomly set one of the players to be the GateKeeper
- Make sure the game is not over yet.

- Setup an event to show the answer – when you type S, you see who the gatekeeper is

Run the game

- When you click on an object,
  - Make sure it is a player
  - Swap it with the player furthest away
- Check to see if the game is over

Write swap in three parts

- WhichBallNearPlayer – given a player, determine which ball it is standing near (this has been written for you)
- WhichPlayerNearBall – given a ball, determine which player is standing by it
- Swap – given a player
  - Determine ball it is near
  - Determine ball it should move to
  - Determine the player that is near the ball it should move to