Announcements

SUMMARY
In this assignment you will write a program to design stage lighting.

DEADLINE
This assignment is due on Wednesday, May 30 at 11:00 pm.

SPECIFICATION
You will create two classes to simulate a stage backdrop with colored lighting fixtures. The program will allow a user to see the beams from the light fixtures and the color-mixing that occurs. Create a package called `stagedesigner` with the following two public classes:

**Light**
- **Constructors:**
  - `public Light(int x, int y, double direction, double angle, Color color)`
  - *x* ... the `x` coordinate of the light (origin of the beam)
  - *y* ... the `y` coordinate of the light (origin of the beam)
  - *direction* ... the direction of the beam in radians
  - *angle* ... the width of the beam in radians
  - *color* ... the color of the beam
- **Methods:**
  - `public Color getColor()`
  - `Return the color of the light fixture`
  - `public boolean inBeam(int px, int py)`
  - `Return true if the coordinates (px, py) are in the beam, false otherwise.`

Assignment 3

- **ChordNode**
  - **Extend** `Node` to create `ChordNode`
  - **Inheritance**
  - **NoteLinkedList** can then support both single notes and chords
  - **Object Type Compatibility**
  - Which methods does `ChordNode` need to override?
  - Which version of each `Node` method is called during recursion?
  - **Polymorphism**