## NAME

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## Assumptions

- 0. You need to control events by mouse. You can check tests in the maven build after the mvn clean package. We have also implemented multithreading as an attempt for the bonus. Design patterns singleton and factory.
- \*\*\* The user cannot initiate any actions while the button is paused. \*\*\*
- 1. To extend the stick, the user should click on the StickImage. the area of dealing with the mouse event is restricted to avoid unintentional touches.
- 2. to invert and retrieve cherries, the player has to click on the Red pane that appears when the player is translating. We could have made the pane transparent and made it extended over the entire pane to exactly emulate the game, but we felt that this had more affordance to it.
- 3. It takes 5 cherries to revive the character.
- 4. If the length of the stick is not within the desirable range, the player will eventually fall. The player cannot invert down and collect cherries during this particular instance.
- 5. The user should click the StickImage to extend the stick \*\* only once \*\* during a particular instance.

## Maven Guide

- open Terminal
- mvn compile plugin
- browse the directory containing the pom.xml for "target". Right-click on the jar file to run it.

## Design Patterns

- Singleton For the StickHero character. The constructor is private so that it cannot be accessed and we use getInstance to work on it.
- Factory We are implementing the pillars as rectangles of finite possible widths to maintain consistency.

The selection from these possible widths is done in a random manner using Engin.RandomWidth()

We then use the "RectangleObstaclesFactory" to get the desired rectangles and we implement them as pillars.