CSE 102 SUMMER HOMEWORK

This homework is not mandatory.

Game Rules

In this homework, you will implement a game like BBTAN. You can try the original game or watch gameplay videos from the links provided below

Targets: Targets can be rectangle or triangle shaped blocks as shown in Figure 2.

Figure 2: Targets.

- Each target has a health that decreases at every hit.
- If the health of a target is zero, then the target should be destroyed.
- Targets slide down at every turn.
- All targets have a finite and reasonable health. Their health should be decrease at every hit.
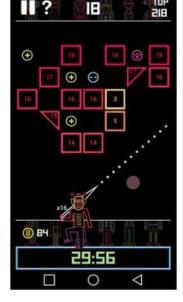- New targets should be spawn at each turn on the top of the screen.

Figure 1 BBTAN for Android

Special Targets:

Add 1 extra ball for the next turn

Decrease the health of the targets in the same row by 1

Decrease one health of the targets in the same column by 1

Randomly change the direction of the ball that hits this target (with appropriate angles).

Balls:

- Number of balls that will be thrown in a turn starts from one and it increases each turn by one.
- Balls should be reflected by targets and walls except floor.
- Balls move at constant speed.
- Reflection angle should be equal to incident angle.
- Balls are thrown from the bottom of the screen and they will disappear by going down from the bottom of the screen.
- Balls are thrown from where the first ball of the last throw touched the ground.

Game:

- Each turn ends when there is no ball on the screen.
- If any target except special targets hits the bottom of the screen, game ends.
- Angle of a throw can be specified by either of input devices (keyboard or mouse) or both of them.

Useful links:

- BBTAN: https://play.google.com/store/apps/details?id=com.crater.bbtan
- Allegro library: https://www.allegro.cc/
- Gameplay 1: https://www.youtube.com/watch?v=x870fYyCK6s
- Gameplay 2: https://www.youtube.com/watch?v=5-J_Le_aoxc

Notes

- You are free to add any additional features. You may get extra grades for these features.
- You can change the game rules while preserving the basic game mechanics.
- It should compile and run both under Linux and Windows
- This homework is due the first week of Fall 16 semester.
- This homework will be graded as CSE241 HW00.