

Project 4

Due Oct 5, 2019 by 11:59pm **Points** 100 **Submitting** a text entry box or a file upload
File Types txt **Available** after Sep 25, 2019 at 8pm

This project applies linear physics in a fun game.

The game will consist of the following:

- . 1 player character (starting at the bottom)
- . multiple flat platforms scattered on the screen
- . 5 collectible items, and
- . 7 adversary floating objects.

The objective of the game is for the player character to collect all the collectible items and reach the top of the screen by jumping from one platform to another while avoiding the floating adversaries. The left and right arrows allow the player character to move left/right, while the up arrow makes the character jump. Whenever the player touches a collectible item, the item will be collected and disappear.

Each of the platforms is at least 100 pixels wide.

When the down arrow is pressed, the player character will drop a ball. When the ball lands on a floating adversary, the adversary will die. However, if an adversary touches the ball from the side, the ball will disappear. When the ball falls on to the bottom border, it will bounce but not rise as high as the position it was initially dropped. Eventually the ball will settle on the bottom of the screen.

The player character can drop at most 10 balls in total during the game.

There are 7 floating adversaries, that start anywhere on the screen. They wander around initially. But when they see the player character, they will move toward the player character. When any adversary catches the player, game over.

The above description is the minimal requirements. You may add additional specs to make it even more interesting. Be creative!

Please upload the code of your program as a text file (*.txt) to canvas.

Grading: Grading of this exercise will be based on the following:

Artistic and creative effort: 10%

Documentation: 10%

Completeness: 80%

If your program has syntax errors - the grade will be 0. This will be true for all future projects.

Each hour late will cost 2 points; each day late will cost 40 points.

You may discuss among yourselves for this exercise. However, everyone must write his/her own program. You are allowed to exchange ideas, but NO PROGRAM SEGMENTS, PROCEDURES, FUNCTIONS MAY BE EXCHANGED OR COPIED from any source.