M256 Computer Programming
Platforms Exercise

Setup: From the O: drive, copy the entire folder *"Platforms"* into your Canvas folder. This folder includes the file *Platforms.html* which you will edit, as well as various picture files that you will use.

This file includes a stripped-down version of the bird game, where the bird knows how to jump and that's it. (The bird does not fire pebbles, and the bird does not know how to move.)

Task #1: `platformClass`

The skeleton of `platformClass` has been provided for you. First, complete this class by filling in code at the indicated places (constructor code + draw method). Next, instantiate two platform objects and name them `pf1` and `pf2` (use the image file *platform.png*). Make sure you can see these platforms on the screen.

Right now, the bird does not interact at all with the platforms (yet), so the platforms will basically just be part of the background. We will be adding that functionality next.

Task #2: Bird Movement

Add two methods to `birdClass` for horizontal movement of the bird: `moveRight()` and `moveLeft()`. Add appropriate code in the `gameUpdate()` function so that the bird moves when we press the left & right arrow keys. So now the bird can move left and right (while jumping too), but still does not interact with the platforms in any way.

Task #3: Landing on the platform

Add code in the `update()` method of `birdClass` to detect the bird falling onto a platform, so that it can land on the platform. *Hint: ask yourself the following two questions before you start coding:*

1. How would you detect the bird falling *down* onto the platform (as opposed to the bird jumping up into the platform)? Think: Doodle Jump. If the bird is falling down onto the platform, then we want the bird to land on the platform; if the bird is jumping up into the platform, we want to allow the bird to jump through the platform.
2. Once you do detect the bird falling down onto the platform, how would you make the bird "stop falling" so that it'll land on the platform?

This is a *very* tough task, and you're not expected to come up with the full solution on your own! The purpose is to wrap your head around the task before we go over it together as a class.