

# Game Project

## Extensions

1. Added sounds  
I used class object to add sounds to my game. Its makes it very easy to play sounds using the OOP methods.
2. Added platforms  
I randomly created platforms that the character can jump on. I made sure it can only be two levels of platform.  
 $Y = 100$  or  $Y = 200$   
Y is the distance of the platform from the Ground (ground\_y)
3. Added enemies  
My enemies are also randomly generated

## About

The main goal of randomness in the code is the give the user a unique experience and design on every game start. The trees, clouds, mountains, canyons, collectibles, enemies and platforms are all random. Both their colors and positions. Platform and enemies colors are fixed to not confuse the user on what is what.

As a bonus, the game screen is full width. The length of the game can be increased by increasing `ENDING_POINT`. Note: The longer the game the more the objects and more memory consumption.

## Difficulties

The problem I found most is correctly calculating the distance between the character and the collectible or any object. Since my collectible can be placed above the character and it will need to jump to pick it. I had to find a way to accurately calculate the distance between both.

## Skills length

1. Graphics
2. Vectors
3. Color types (RGB, etc.)
4. Object Oriented Programming