

INSTRUCTIONS:

Goal of the Project:

In class 10, we have learned how to indent code and use the console to display the live position of an object. Using visible properties of ground, we made the ground invisible.

In this project, you will apply what you have learnt in the class to achieve the following goals.

Main Goal	Create a vertically moving background and an animated boy sprite.
Additional Goal 1	Create two left and right invisible boundaries and the boy should collide with the left and right invisible boundaries . Also, make the boy move left and right using a mouse.
Additional Goal 2	Repeat the background based on the height of the background and make the boy collide with the bottom edge.

Story:

Lucifer visited his best friend's home. He loved the Running Surfers game which his friend was playing on his mobile. When he came back home, he tried to play that game on his mobile but his mobile was not supporting that Running Surfers game. So he decided to build a computer game similar to the actual subway surfers game.

Can you help Lucifer design the game?

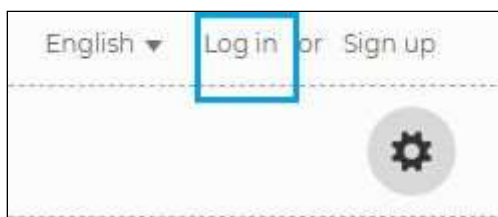
See a video of this in action [video](#).



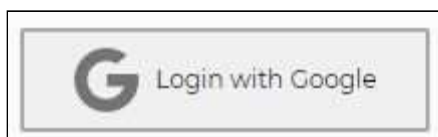
***This is just for your reference. We expect you to apply your own creativity in the project.**

Getting Started:

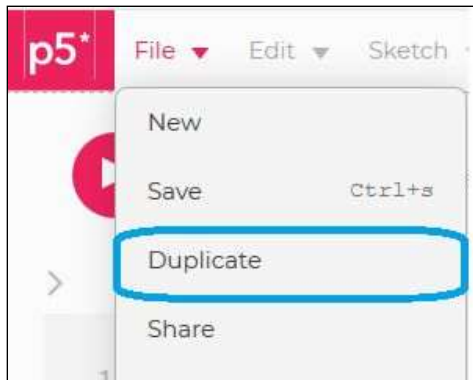
1. Click on the following link: [Project Template](#).
2. Click on **Log in** to login to P5.js editor.



3. Click on **Login with Google** and use your gmail id to login into P5.js editor.



4. Click on “**Duplicate**” under the **File menu**.



- This will create a copy of the sample project in your account.

5. Rename the project to **Project 10**.



6. Click on “**Save**” under the **File menu** to save your project **OR** press **Command+s** on **Mac** and **CTRL+s** on **Windows** systems to save your project.



7. Start writing code in sketch.js file.

8. Download the images from [here](#) and add it to your project.

Specific Tasks to complete the Main Goal:

1. Set the background to show a track.
 - Make it a moving background by giving velocity Y to the background.
2. Create a boy sprite.
 - Set running animation for the boy.

Hints for the Main Goal:

1. To move the background scene, use the following code:

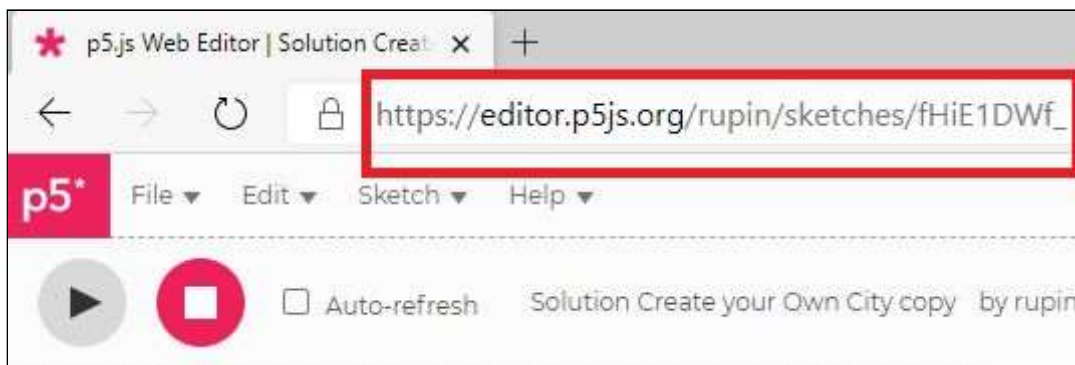
```
// Moving background  
path=createSprite(200,200);  
path.addImage(pathImg);  
path.velocityY = 4;  
path.scale=1.2;
```

Submitting the Project:

1. Click on “**Save**” under the **File menu** to save your project or press **Command+s** on **Mac** and **CTRL+s** on **Windows** systems.



2. Copy the link of your browser's address bar and paste it in the Student Dashboard Projects panel against the correct class number.



Additional Goal 1:

You have to write the code to move the boy left and right.



Specific Tasks to Achieve Additional Goal 1:

1. Create a left and a right boundary sprites and set it's visible property as false.
2. Make the boy move left and right with the mouse using MouseX in draw().
3. Write code to collide the boy with the left and right invisible boundaries.

*Refer to the images given above for reference.

***SAVE** all the changes made to the project and **SUBMIT** the shareable link in the Student Dashboard Projects panel against the correct class number.

Additional Goal 2:

Just to give the game a complete design you have to repeat the background.



Specific Tasks to Achieve Additional Goal 2:

1. Create an edgeSprite and make the boy collide with the bottom edge.
2. You might have found a bug in the code that after moving with velocity your background is getting black without the track.
3. So, for resolving that issue you have to add an if condition based on height of background, to repeat the background.

```
//code to reset the background
if(path.y > 400 ){
    path.y = height/2;
}
```

3. Click on "**Run**" once to check if it is working.

*Refer to the images given above for reference.

***SAVE** all the changes made to the project and **SUBMIT** the shareable link in the Student Dashboard Projects panel against the correct class number.

REMEMBER... Try your best, that's more important than being correct.

After submitting your project your teacher will send you feedback on your work.

_____ **xxx** _____ **xxx** _____ **xxx** _____ **xxx** _____ **xxx** _____