INSTRUCTIONS:

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Goal of the Project:

In class 21, you learned how to extend the feature of collisions and created your own library which allows you to try collisions with more than one object.

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

Main Goal	● Create 4 collision surfaces and a moving box. ● Color of the box should get changed as per the collision surface color.
Additional Goal 1	● Add condition to stop box and play sound at particular surfaces.

Story:

John and Jacky are two brothers who are planning to create a game. They are creating a game in which the box will start moving with a specific velocity and its color gets changed according to its colliding surfaces' color.
See a video of this in [action](#).
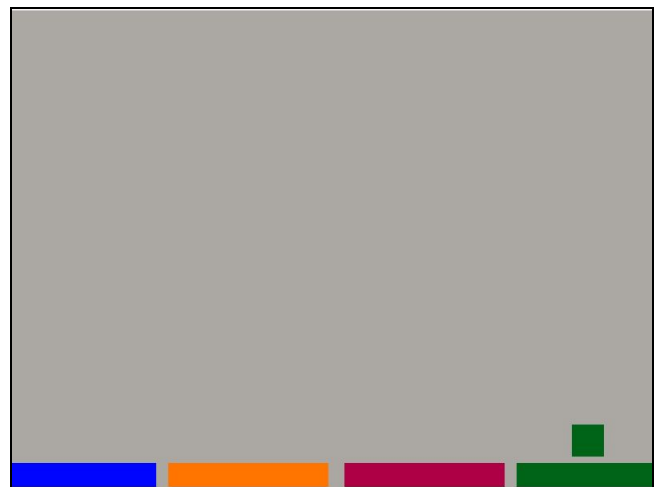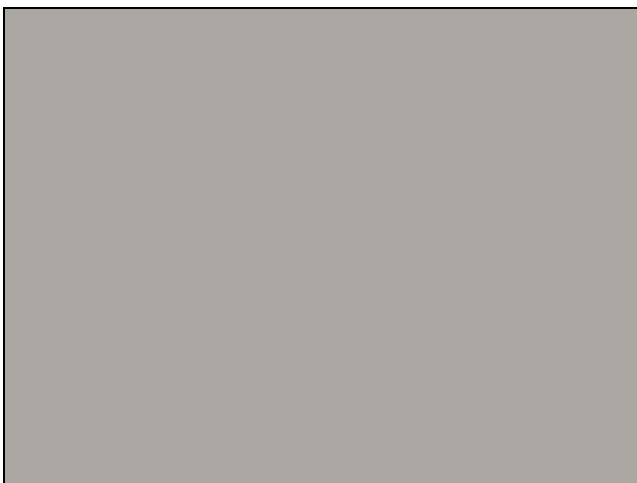
*This is just for your reference. We expect you to apply your own creativity in the project.

Getting Started:

1. Use the template on github, available for download on this link.
2. **Unzip** this folder.
3. Rename the unzipped folder as **Project 21.**
4. **Import** this folder **into VS Code**.
5. Start editing your code in **sketch.js**.

Specific Tasks to Achieve the Main Goal:

1. Create four surfaces at the bottom of the canvas using different colors.
2. Make the box sprite, which is **white** in color. Also, give some velocity to it.
3. Assign a **Random value** to the **x position of the box sprite.**
   - Range of x positions for the box is from 20 to 750.

```
createSprite(random(20,750)
```

4. Create edge sprites to stop the box from moving out from the canvas.
5. Write conditions to check if the box is touching any specific colored surface. After touching the surface, change the color of the box according to the surface it touches.
6. Make sure the project works before you submit it.

*Refer to the images given above for reference.

Submitting the Project:

1. **Upload** your completed project to your own github account.
2. Enable **Github** pages for the repository.
3. Copy and paste the link to the github pages in the Student Dashboard against the correct class number.
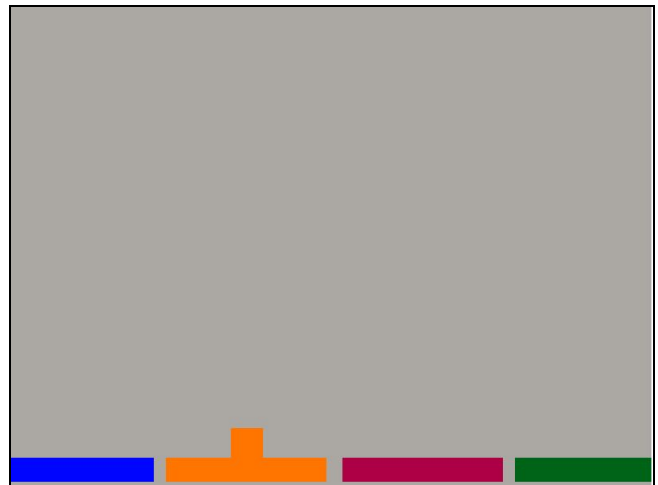
Hints for the Main Goal:

1. To check if box is touching any specific surface and make it bounce you can use code given below:

```
if(surface1.isTouching(box) && box.bounceOff(surface1)){
    //change color here
}
```

Additional Goal 1:

Now you have to add some music and stop box at a particular collision surface.

Specific Tasks to Achieve Additional Goal 1:

1. You can play some music when the box touches any specific color surface. **(Refer video)**
2. Set velocity of the box to **zero and stop music** when it touches any specific colored surface (like in the image when the box touches orange color it stops there.)
3. To make the game more interesting you can add sound when the box touches any specific surface.
4. Make sure the project works before you submit it.

Hints for Additional goal 1:

1. You can use the code given below to stop the box:

```
if(block2.isTouching(ball)){
    ball.shapeColor = rgb(255,128,0);
    ball.velocityX = 0;
    music.stop();
}
```

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

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

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