PROFESSIONAL

GEOLOGIST

WhiteHat Jr
Live Online Coding for Kids

INSTRUCTIONS:

Goal of the Project:

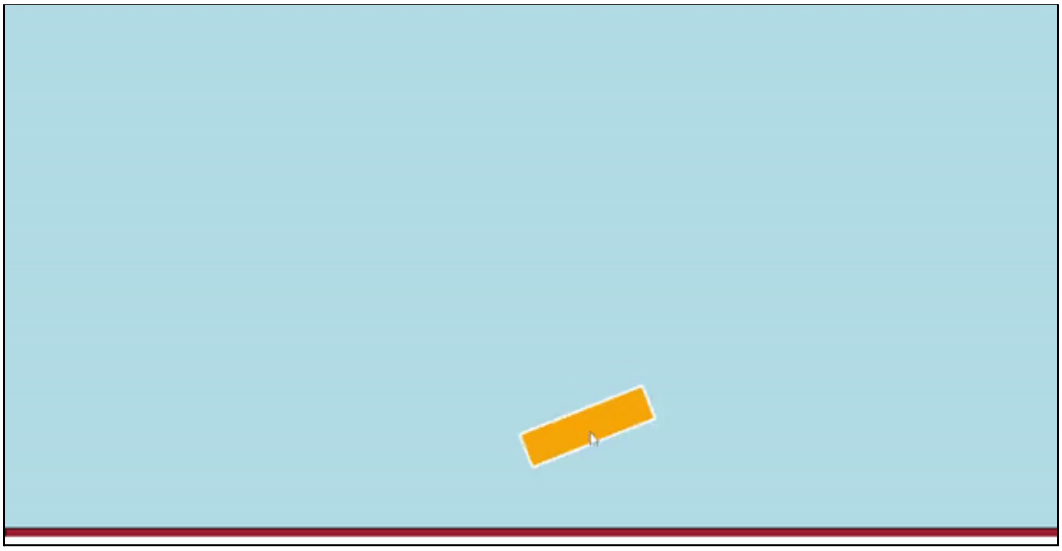
In Class 24, you learned how to create various bodies and assign different properties to them.

In this project, you will apply what you have learned in the class to create a virtual game to help a geologist identify different bodies with their mass, friction etc.

Story:

Franky is a geologist and he always tries to search for different bodies. And now he wants a virtual game in which using a hammer he can identify different bodies with their mass, friction, etc. Here you have to create hammer, stone, and rubber bodies.

See a video of this in action here.



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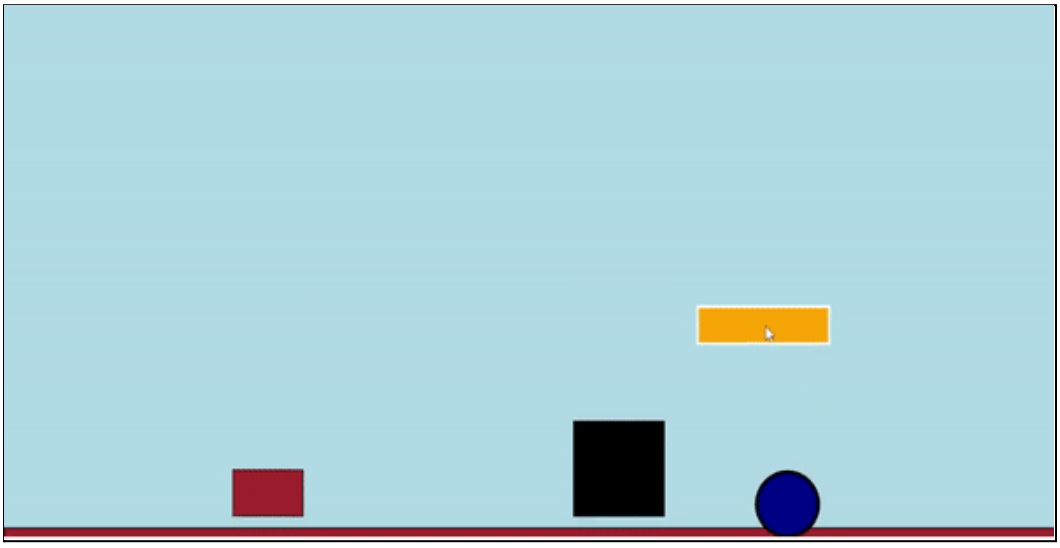

***This is just for your reference. We expect you to apply your own creativity in the project.**

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 24.**
4. **Import** this folder **into the VS Code**.
5. Start editing your code in **sketch.js**.

Specific Tasks to complete the Project:

1. The blueprint for the **Rubber class** has been given to you.
    - Make sure you set the low **density and** high **friction** as shown below.

```
var options={
    restitution:0.3,
    friction:5,
    density:1
}
```

    - Use the ellipse method to draw the circle for the rubber body. ***Check hints***

2. Create the blueprint for the **Stone class**.
    - Make sure to assign a high density to the stone .

```
var options = {
    'restitution':0.8,
    'friction':0.9,
    'density':12
}
```

    - Create a rectangular Matter.js Body for the stone.

3. Create a blueprint for the **Iron class**.
    - Make sure to assign a very high density to the iron object.

```
var options = {
    'restitution':0.8,
    'friction':3,
    'density':30
```

    - The iron object can also be a rectangular body.
4. Create objects of the **Iron** class, **Stone** class and **Rubber** class and display them in sketch.js.

5. 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 Project:

1. The rubber body will have a circular body.
    - Remember, in p5.js use the ellipse method to create the circle. See this link.

```
ellipse(0,0,this.r, this.r);
```

    - Circles in p5.js and circles in matter.js behave a little differently. p5.js expects the third parameter to be a radius, but matter.js will expect a diameter. Make sure you do this correctly.

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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