PROFESSIONAL

TOWER SIEGE – 2

WhiteHat Jr
Live Online Coding for Kids

INSTRUCTIONS:

Goal of the Project:

In Class 30, you have learned to use the vanishing effect for a pig and use keyboard events to attach the bird back to the sling in the Angry Birds game.

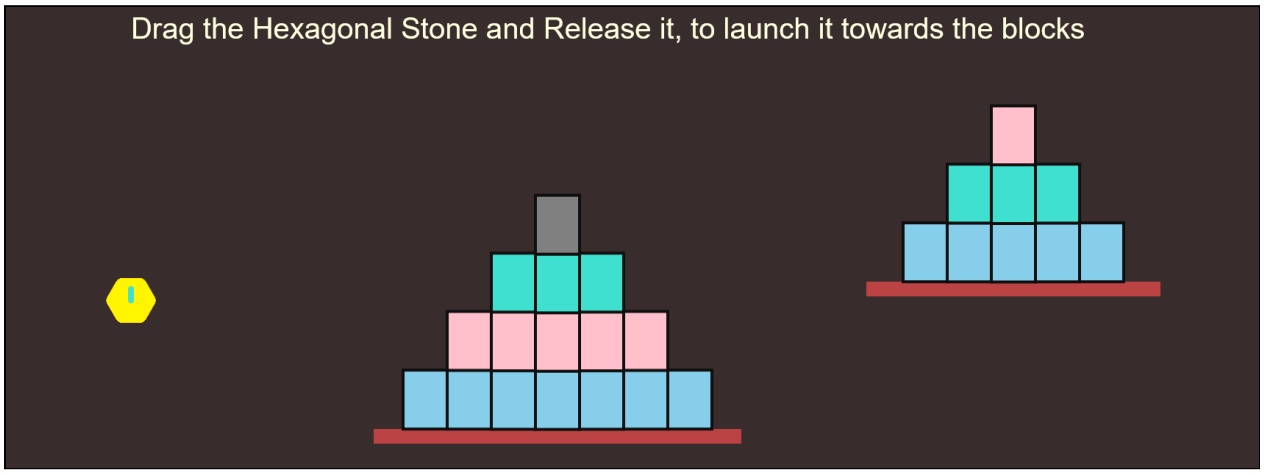
In this project, you will have to practice and apply what you have learned in the class and continue adding more functionality to the Tower Siege game.

Story:

In the game design competition in your school, you are asked to make a game related to knocking down objects.

Create a Tower Siege Game where your friends can throw a rock at a group of stacked objects and crash them and they disappear. Also, attach the polygon back to the slingshot when the space key is pressed.

Following is the output of this in action:



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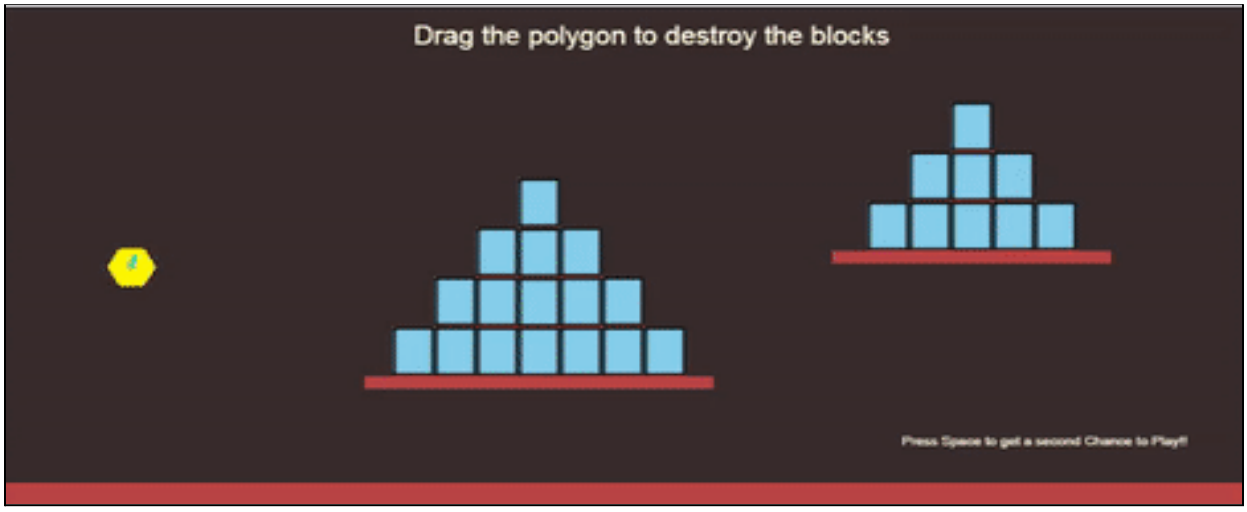

***This is just for your reference. We expect you to apply your own creativity in the project.**

Getting Started:

1. Use your existing project created in Project 29, add this image to your folder **OR** use this **template**.
2. Open your project in **VS code**.
3. Start editing your code in **sketch.js**.

Specific Tasks to complete the Project:

1. Add **block.png** image to the block class.

```
this.image= loadImage("block.png")
```

2. Add a property of “visibility” in our **Block.js.**
   - Write code to display the boxes only when their speed is below the threshold of 3.
   - Don’t forget to write the **remove** condition for the boxes when the speed is more than the threshold.
   - As we need the boxes to fade, we use the tint condition for the image.
   - Whenever the display function executes, **reduce** the visibility by 5.
3. Ensure you write the push() and pop() conditions to avoid unexpected behavior.

4. When the user presses the Space Key, the **keyPressed** events in sketch.js should give an extra chance to the player.
    - We use **keyCode** value (ASCII value), for attaching the polygon (**bodyA**) back to the slingShot Class.
5. In slingShot.js, create a function **attach(body)** to set the bodyA to polygon body.
6. Make sure the project works before you submit it.

Submitting the Project:

1. Upload your completed project to your own GitHub account.
2. Create a new repository named "**Project 30**".
3. **Upload** working code to this GitHub repository.
4. Enable Github pages for the repository.
5. Copy the link to the GitHub pages link in the Student Dashboard.

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Hints for the project:

1. Tint condition is given to the block object. Refer link: https://p5js.org/reference/#/p5/tint

2. Push() and Pop() conditions will stop the unexpected behavior of box visibility and invisibility.
    - Link for reference:
        - https://p5js.org/reference/#/p5/pop
        - https://p5js.org/reference/#/p5/push

3. **keyPressed** is a default function. It doesn't need to be called so feel free to experiment with its functionality.
    - Each key is identified by a 'keyCode' – a numeric value which we call ASCII value.
    - Links for reference :
        - https://p5js.org/reference/#/p5/keyPressed
        - https://www.w3schools.com/charsets/ref_html_ascii.asp

```
function keyPressed(){
  if(keyCode === 32){
      slingShot.attach(this.polygon);
  }
}
```

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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