PROFESSIONAL

TOWER SIEGE – 2

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 apply what you have learned in the class to achieve the following goals.

Main Goal	• Vanish the blocks.
Additional Goal 1	• Reset the polygon stone after the release.

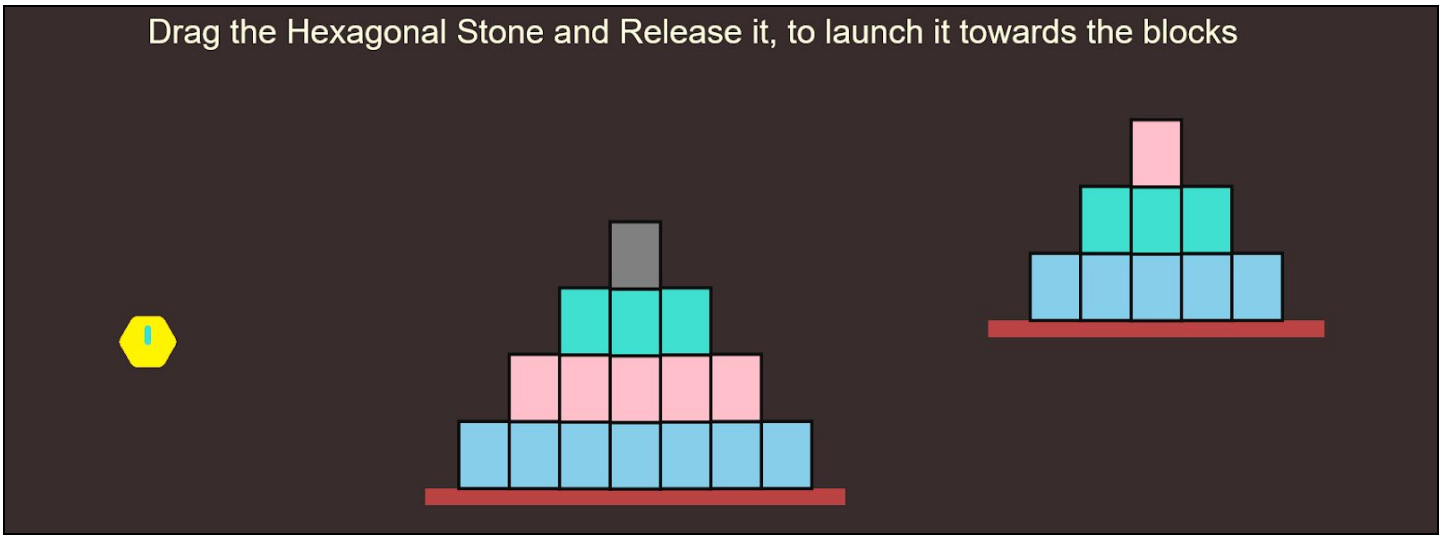
** This is a continuation of Project 29, so make sure to complete the main goal of the project before doing this project. **

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.

See a video of this in action here.



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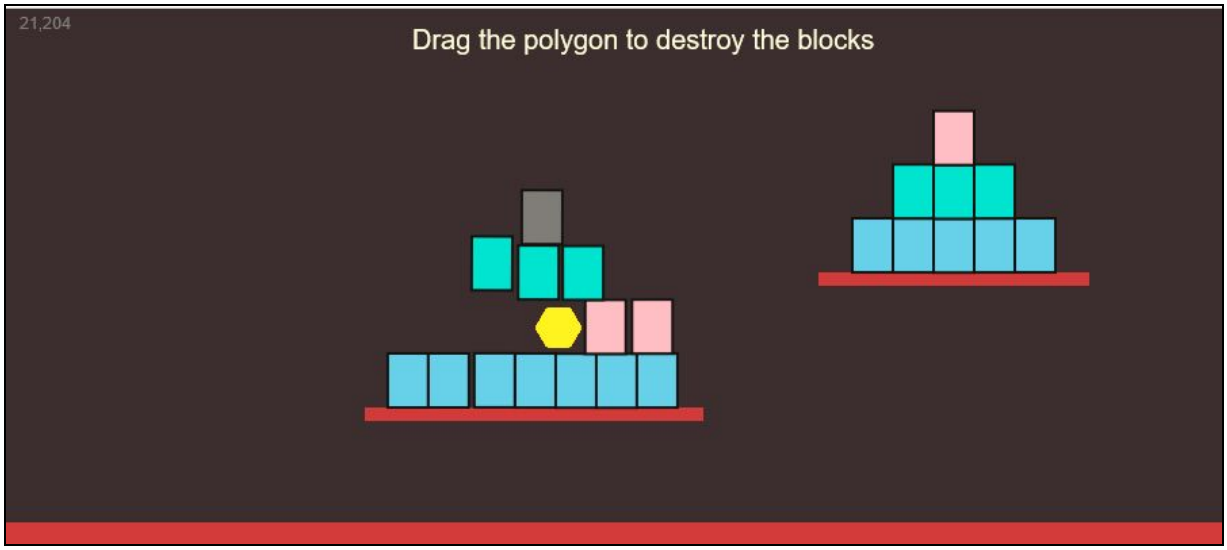

***This is just for your reference. We expect you to apply your own creativity in the project.**

Getting Started:
There are two ways you can start with this project:

Option 1:

1. Use the template on github, available for download on the following link: https://github.com/rupinwhitehatjr/TS1/archive/master.zip.
2. **Unzip** this folder.
3. Rename the unzipped folder as **Project 30.**
4. **Import** this folder **into VS Code**.
5. Start editing your code in **sketch.js**.

Option 2:

If you decide to use your Project 29 as a starting point to complete this project, follow the steps given below:

1. Use your existing project created in Project 29.
2. Make modifications to the same project in **VS code**.
3. Start editing your code in **sketch.js**.

Specific Tasks to Achieve the Main Goal:

1. Add a property of “visibility” in our **Block.js.**
    - Write code to display the blocks only when their speed is below the threshold of 3.

- Don't forget to write the condition to **remove** the blocks from the world, when the threshold is crossed.
- As we need the blocks to fade, we use the tint condition for the image. (Refer to the Hints)
- In the display function of the blocks, whenever the display function executes, reduce the visibility of blocks by 5.

2. Ensure you write the push() and pop() conditions to avoid crazy behavior. (Refer to the Hints)
3. 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.

Hints for the Main Goal:

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 crazy behavior of blocks visibility and invisibility.
    - Link for reference:
        - https://p5js.org/reference/#/p5/pop
        - https://p5js.org/reference/#/p5/push

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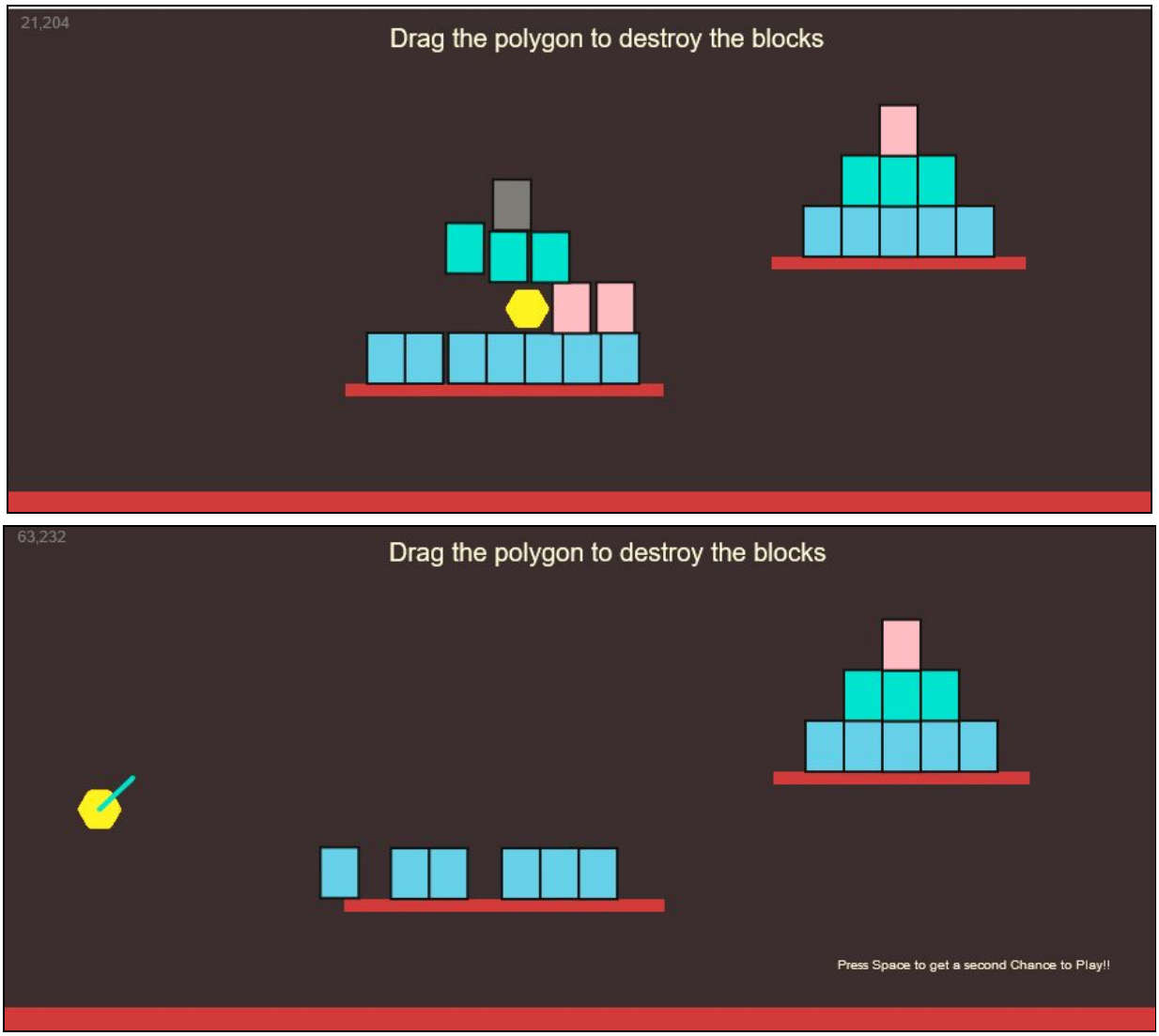
WhiteHat Jr
Live Online Coding for Kids

Additional Goal 1:

You have to give multiple chances to a player. Write code to reposition the polygon stone.



Specific Tasks to Achieve Additional Goal 1:

1. When the user presses the Space Key, the **keyPressed** events in sketch.js should give an extra chance to the player and the block should attach to the polygon (**bodyA**) again.
    - We use **keyCode** value, which we call ASCII value, to attach the polygon back to **pointB in** slingShot Class.

2. Create a function **attach(body)** to set the bodyA to polygon body.
3. Make sure the project works before you submit it.

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

Hints for the Additional Goal 1:

1. **keyPressed** is default. they need not be called so feel free to experiment with its functionality.
    - Each key is identified by a 'keyCode' – numeric value which we call ASCII value.
    - Links for reference :
        - https://p5js.org/reference/#/p5/keyPressed
        - https://www.chegg.com/homework-help/look-ascii-chart-appendix-determine-codes-letter-first-namea-chapter-1-problem-3e-solution-9780133985078-exc

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

REMEMBER... People learn by reading, observing and trying again. Keep learning!!!
After submitting your project your teacher will send you feedback on your work.

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