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KANGAROO IN JUNGLE-1

INSTRUCTIONS:

Goal of the Project:

In class 38, you learned how to play around with the camera. In this project, you have to practice and apply what you have learned in the class and create a game where a kangaroo searches for food. Add a camera in the game moving in the x-direction.

Story:

Joey is a baby kangaroo who is hungry and is eating all the tasty shrubs and plants in the jungle. Help Joey find and eat as many shrubs as he can. Add obstacles and a scoring system to make the game interesting.

See a video of this in action here.

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WhiteHat Jr
Live Online Coding for Kids

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 38**.
4. Import this folder into VS Code.
5. In the template, a canvas of 800X400, function preload and a jungle background is created.

Specific Tasks to complete the Project:

1. Create a sprite for the kangaroo:
    a. Apply Kangaroo_running and kangaroo_collided animation to it. Scale the kangaroo if required.
    b. Set the collider of the kangaroo as a circle and the radius of the collider as 300.
    c. In function **draw()**, Set the x-Position of the kangaroo according to the camera

```
kangaroo.x=camera.position.x-270;
```

    (NOTE: The camera by default points in the center of canvas. So to place any object on the left, you will reduce the camera.position.x.).

2. Create a sprite for Invisible ground and place it at the bottom side of the screen.

3. In the **draw()** function, create a condition to check if the game state is PLAY. Inside the condition add the following instructions:
    a. Give velocity to the jungle background to make it move towards the right.
    b. Add instructions to make the jungle background scroll infinitely.
    c. Add instructions to make the kangaroo jump only when the space key is pressed. Also, give it gravity, so it comes down after the jump.

4. Write the **spawnShrubs()** function:
    a. Create a shrub sprite after every 150 frames.
    b. Set the x-position of the shrub according to the game camera.

```
var shrub = createSprite(camera.position.x+500,330,40,10);
```

    c. Set the positive x velocity, to make it move towards the kangaroo.
    d. Add random images of shrubs [images are already loaded in function preload()].
    e. Give lifetime to the shrub sprite to prevent memory leakage.
    f. Add each shrub to the shrubsGroup.

5. Write the **spawnObstacles()** function similar to **spwanShrub().**

6. In the condition that you wrote for gameState PLAY, add the following conditions:
    a. When the kangaroo touches a shrub, increase the score by 1:
        - Destroy the shrubsGroup.
    b. When the kangaroo touches a stone, the game ends:
        - Set gameState = END.

7. In the function **draw()**, create one more if condition to add instructions that will be executed when gameState is END.

8. To make the game more interesting, you can add sound to it. (You can use the sound given in preload()).

9. 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 38**".
3. **Upload** working code to this GitHub repository.
4. Enable GitHub pages for your repository.
5. Copy the link to the GitHub pages link in the Student Dashboard.

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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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