**INSTRUCTIONS:**

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Goal of the Project:

In Class 3, you learned to use Conditional Programming (if statements) to add control to the game elements. Here, you will design an underwater scene with moving fishes.

In this project, you will have to practice and apply what you have learned in the class and create moving fishes inside the scene and make them reappear using the 'if condition'.

Story:

Daisy loves to play with fishes and spends hours watching them swim in the house aquarium. Her Dad accompanies her and teaches her how to clean the fish tank and feed food to the fishes. Since Daisy has now learned conditionals, she is eager to try her hand at creating an underwater scene where fishes keep swimming endlessly and show it to her Dad.

Will you help Daisy build such a scene?
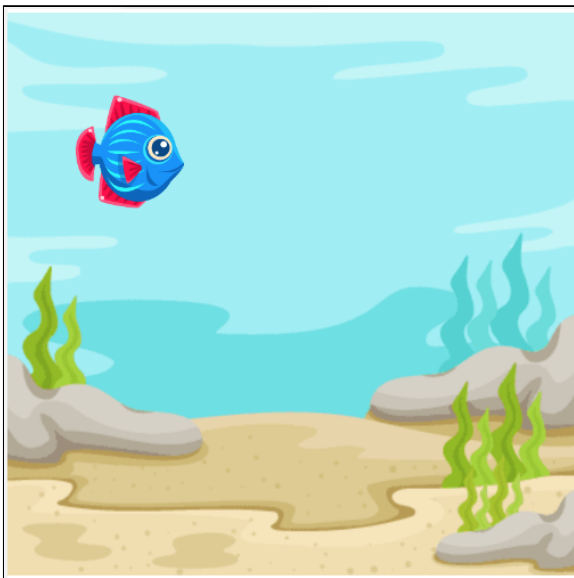
Starting Template
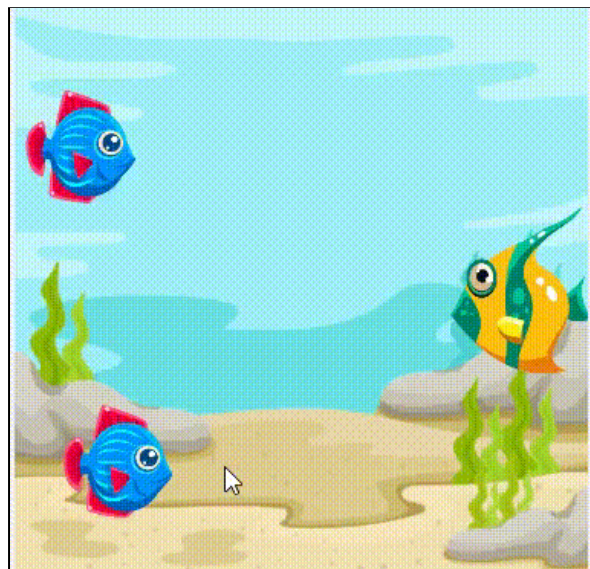
Final Output

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

Getting Started:

1. Login to **code.org**.
2. Click on the following link: Project Template
3. Click on **"View Code"**. You will see **comments** in green for your help.
4. Click on **"Remix".**
5. Rename the project to **Project 3** and click on **Save**.

Specific Tasks to complete the Project:

1. Click on the **Animation** tab and check all the animations needed for the project.
You will find the background underwater scenes and fish animations already added.

2. You will find **fish1** already been created in the template code for your reference. Run the code to see it moving from left to right and re-entering the scene once it crosses the edges.

3. Create a **fish2** sprite close to the right edge (position: **380**, **200**). Set the animation to **fish2** and **scale** as per your liking. Assign a negative value to **velocityX** as we want the **fish2** to move from right to left. *(See Hint 1)*

4. Now, create a **fish3** sprite similar to **fish1.** Update the y-position to make it swim a little lower than **fish2** and increase the value of **velocityX** (*maybe 2*) as all fishes swim at different speeds.

5. Write an '**if condition**' to check if the fish sprite is going out of the canvas and have them reappear in the scene. You will find the '**if-condition**' already written for **fish1.** Write the **if-conditions** for **fish2** and **fish3**. *(See Hint 2)*

6. Click on "**Run**" once to check if the code is working.

7. Optional: Update the scene to dark and fishes to bad fishes on mouse press. Define the **mousePressed()** function to make it a dark, scary underwater scene *(See Hint 3)*:
   a. Set the animation of the scene sprite to **bg_underwater_2**. (Check Animation tab)
   b. Set the animation of the '**fish1'** sprite and '**fish3'** sprite to **'bad_fish1'.**
   c. Set the animation of the '**fish2'** sprite to **'bad_fish2'.**

8. Run the code again and press the mouse button after a few seconds.

Submitting the Project:

1. **SAVE** all the changes made to the project.
2. Click on "**Run**" once to check if it is working.
3. Click the "**SHARE**" button to generate a shareable link.
4. Copy this link and submit it in the Student Dashboard Projects panel against the correct class number.

Hints:

1. Create the **fish2** sprite on the right and move it horizontally towards the left as follows:

```
var fish2 = createSprite(380,200);
fish2.setAnimation("fish2");
fish2.velocityX = -1;
fish2.scale = 0.3;
```

2. Write the **if-condition** to check if the '**fish2**' sprite is going out of the canvas from the left edge and make it reappear on the right side edge as follows:

```
if(fish2.x < -40) {
   fish2.x = 400;
}
```

3. Optional Activity: **Scary Underwater Scene** (on mouse press).

```
function mousePressed() {
  //change background scene to dark scene
  scene.setAnimation("bg_underwater_2");
  //change fishes to bad fishes
  fish1.setAnimation("bad_fish1");
  fish2.setAnimation("bad_fish2");
  fish3.setAnimation("bad_fish1");
}
```

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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