

INSTRUCTIONS:

Goal of the Project:

In Class 12 you have learned how to correct memory leak problems in code. You have used string concatenation to spawn random obstacles in the game, and display a scoring system.

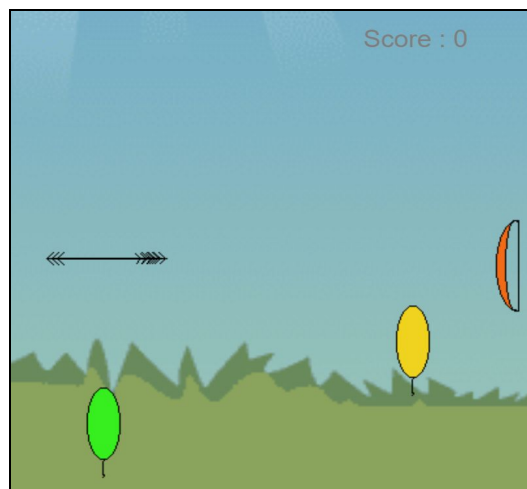
In this project, you will have to practice and apply what you have learnt in the class and add lifetime to all the balloons according to their velocity. Also display the scoring system for the game using string concatenation.

**** This is a continuation of Project 11, so make sure to complete that project before doing Project 12. ****

Story:

So far you have helped Meera a great deal in designing a game of bursting balloons with an arrow. Now you are just a few steps away to complete the game.

You need to add lifetime to all the balloons and also add a scoring system using string concatenation.



***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. Login to code.org
2. Click on the following link: [Project Template](#)
3. Click on “View Code”.
4. Click on “Remix”.
5. Rename the project to **Project 12** and click on **Save**.

Option 2:

If you decide to use your Project 11 as a starting point to complete this project, follow the steps given below:

1. Login to code.org
2. Open the link for Project 11 from your panel.
3. Click on “Remix”.
4. Rename the project to **Project 12** and click on **Save**.

Specific Tasks to complete the Project:

1. Create a **score variable** and assign it a value **0**. Set the **textSize** to **20**.
2. In Projects 10 and 11, you have created functions for balloons and arrows.
3. Add a **lifetime for the arrows** in createArrow() function.

```
function createArrow() {  
  var arrow= createSprite(100, 100, 60, 10);  
  arrow.setAnimation("arrow");  
  arrow.x = 360;  
  arrow.y=bow.y;  
  arrow.velocityX = -4;  
  arrow.lifetime = 100;  
}
```

4. Similarly add a **lifetime for all the balloons** in the Red, Green, Blue and Yellow Balloon functions.
5. Call the **createArrow()** function in the **draw()** function and add the “**woosh**” sound to the arrow.

6. Display score using **text()** function.
 - Add this function after **drawSprites()** and before ending **draw()** function.

```
text("Score : "+score,270,30);
```

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

*Refer to the images given above for reference.

Submitting the Project:

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

Hints:

1. Use the “**woosh**” sound for an arrow from the **playSound** library.
2. Give lifetime to balloons of all colors to avoid memory leaks.

```
blue.lifetime = 150;
```

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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