

Assignment: Dodge the Block (Part 2)

 **Title: Game Over & Leaderboard – Make It a Real Game!**

Objective

In this second part of your arcade game project, you'll make the game feel complete by adding:

- ✅ A **score system**
- ✅ A **Game Over screen**
- ✅ A **Leaderboard** that remembers top scores using `localStorage`

This assignment brings together everything you've learned: event handling, DOM updates, view switching, and data persistence.

Final Project Features

Your game should now support the following:

- ✅ **Game Flow**
 - Starts at a **Home screen**
 - Player controls the red box to **dodge falling blocks**
 - Score increases **the longer you survive**
 - Collision triggers **Game Over screen**
 - Player enters **name** and saves score
 - Game shows a **Leaderboard (Top 5)** using `localStorage`
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Starter Code

You should continue working on your previous assignment file `dodge-game.html`, or use the instructor-provided `dodge-game-starter-v2.html` with view-switching and movement already in place.

If you're starting fresh, here are the recommended views:

```
<div id="homeView">...</div>
<div id="gameView">...</div>
<div id="gameOverView">...</div>
```

✓ Your Tasks

1. Add a Score System

- Use `setInterval()` to increase the score every second
- Display the score in the game view
- Stop the timer when the game ends

2. Create a Game Over Screen

- When collision happens:
 - Stop the game
 - Hide the game area
 - Show a new view with the final score

3. Save and Display the Leaderboard

- Prompt the user to **enter their name**
- Save `{name, score}` to `localStorage`
- Keep only **top 5 scores**
- Sort the leaderboard in descending order
- Display the list in a leaderboard section

```
let board = JSON.parse(localStorage.getItem("leaderboard") || "[]");
board.push({ name, score });
board.sort((a, b) => b.score - a.score);
board = board.slice(0, 5);
localStorage.setItem("leaderboard", JSON.stringify(board));
```

Optional Extensions (Bonus)

- Add a "Restart" button to instantly play again
- Animate the Game Over screen with CSS
- Allow the user to choose a character name **before** playing
- Track **best score ever** and show it at top of screen

Submission Instructions

- Save your file as: `yourname-dodge-final.html`
- Upload it to [Classroom/GitHub/email/etc.]
- Include all HTML, CSS, and JS in one file

Reflection (Add as HTML comment at bottom)

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Reflection:

1. What was the hardest thing to implement?
2. Did the game feel more like a "real game" after this part? Why?
3. What else would you add if you had one more class?

→

Due Date

Submit by: **[Insert Due Date Here]**

What's Next?

You've now built a real browser game from scratch!

In future projects, you'll be able to:

- Add more animations
- Use external libraries like p5.js or Phaser
- Extend your game into levels, power-ups, or mobile versions!

Let's celebrate by testing each other's games next class! 🥳