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Hostile Aliens Challenge

The task

It is time to put what you have been learning to the test here is your advanced JavaScript based project brief!

You're challenge is to build a simple game loosely based on Space Invaders using the skills learnt from this module. For best results, approach this challenge with an OOP mindset although some functions may be needed.

Create a simple text only game with a single button that hits a random alien ship in the fleet. Each time the button is pressed, a random alien ship is hit and its hit points are reduced. Once an alien ships points have hit zero the ship is destroyed and can't be hit again. The game is over once all alien ships have been destroyed.

Rules

- You should be able to start a new game once the game is over
- Some text visualisation of the ships and their hit points
- The game should have the following Alien ships:
    - 1 x Mother ship-
        - 100 Hit Points -
        - Loses 9 hit points every time it is hit -
        - All ships are destroyed if the Mother ship is destroyed
    - 5 x Defence ship -
        - Each one starts with 80 hit points -
        - Each one Loses 10 hit points each time it is hit
    - 8 x Attack ship
        - Each starts with 45 hit points
        - Each loses 12 hit points each time it is hit.

Let’s build!

We’re aiming for the following goals for this project:

1. **A working Game:** The main task is to create a game. Not only will this test your understanding of JavaScript but how you break down a problem
2. **Practice using Git and GitHub flow:** We still want you to get as much practice as possible using git, GitHub and the command line... so keep committing regularly!
3. **Apply what you are learning:** Follow the advice learned when it comes to TDD and Unit Testing, OOP concepts, and Pure Functions

Requirements

- You need to have it as a public repository on GitHub
    - In the repo you will also need a README.md with a short intro to the project.
- You may only use JS / CSS / HTML, no frameworks or libraries.
- You should be able to solve this in under 150 lines including comments (excluding unit tests) and any more than that is a sign you have over complicated the problem
- Use an Object Oriented Programming approach where possible
- You can use basic HTML and CSS to tidy up the output but no more
- Try to use a TDD approach by writing your tests first, but at least make sure everything is tested

Submission

Once you have completed your game, send the GitHub repo to a coach to receive some feedback.