

P5 Monster Combat Game - Project Summary

Program Description & Game Logic

This project is a turn-based monster combat game implemented using JavaScript, modularized into separate files for class logic, game engine, and server endpoints. The game runs on a Node.js server using the Express framework, and the frontend interacts with it through API calls.

The user selects actions like attack, heal, or defend. Each action updates the state of the player and the enemy. After the user acts, the CPU takes its own turn automatically. The game ends when one character's HP drops to 0. Critical hits have a 20% chance to trigger and deal 1.5x damage. Visual feedback is provided via background color flashes, enhancing the gameplay experience.

Backend logic includes deconstructed class-based modules for `Character` and `CombatSystem`, along with modular API routes. The frontend uses DOM manipulation to render stats, combat log, and handle color animations and UI updates.

AI Prompts and Websites Used

This project was developed with assistance from the following resources:

- ChatGPT (OpenAI) for guidance on modularizing Node.js code, Express routing, and front-end logic.
- Express.js documentation for server and routing setup.
- MDN Web Docs for DOM and JavaScript syntax.
- Stack Overflow for syntax questions and error debugging.

Example prompts used during development:

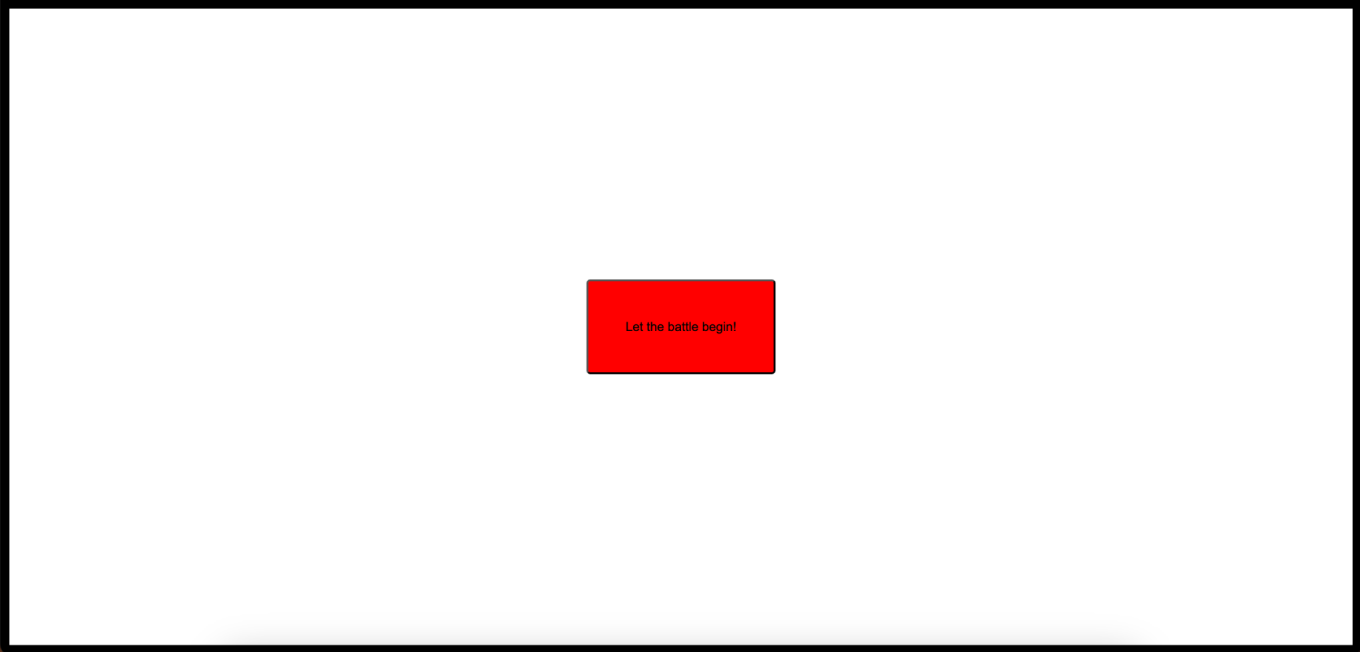
- 'What are common ways to implement the logic for a critical hit that deals significantly more damage.'
- 'How, in HTML, do I add a flash of color to the background on hit, on heal, on defend, and upon receiving damage.'

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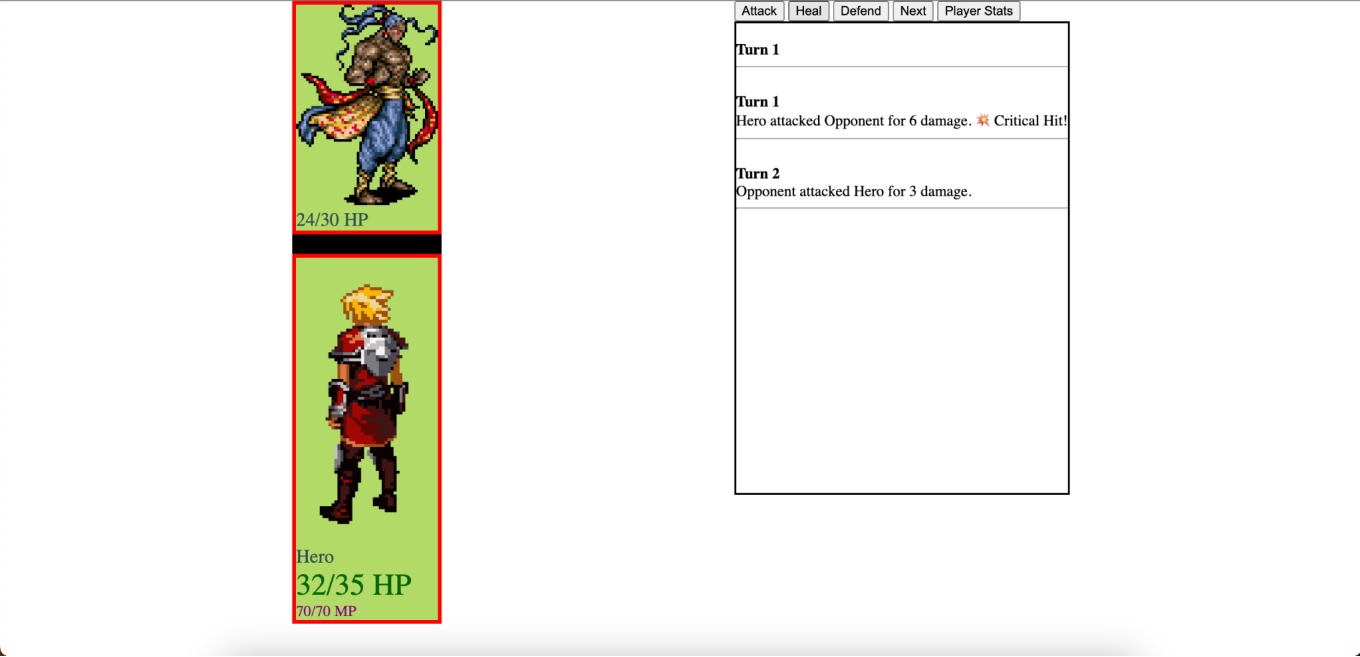
- 'How would I implement the game logic for what action is chosen by the opponent and how do I make it take place after each user action/input.'

Game Screenshots

Initial screen with 'Let the battle begin' button.

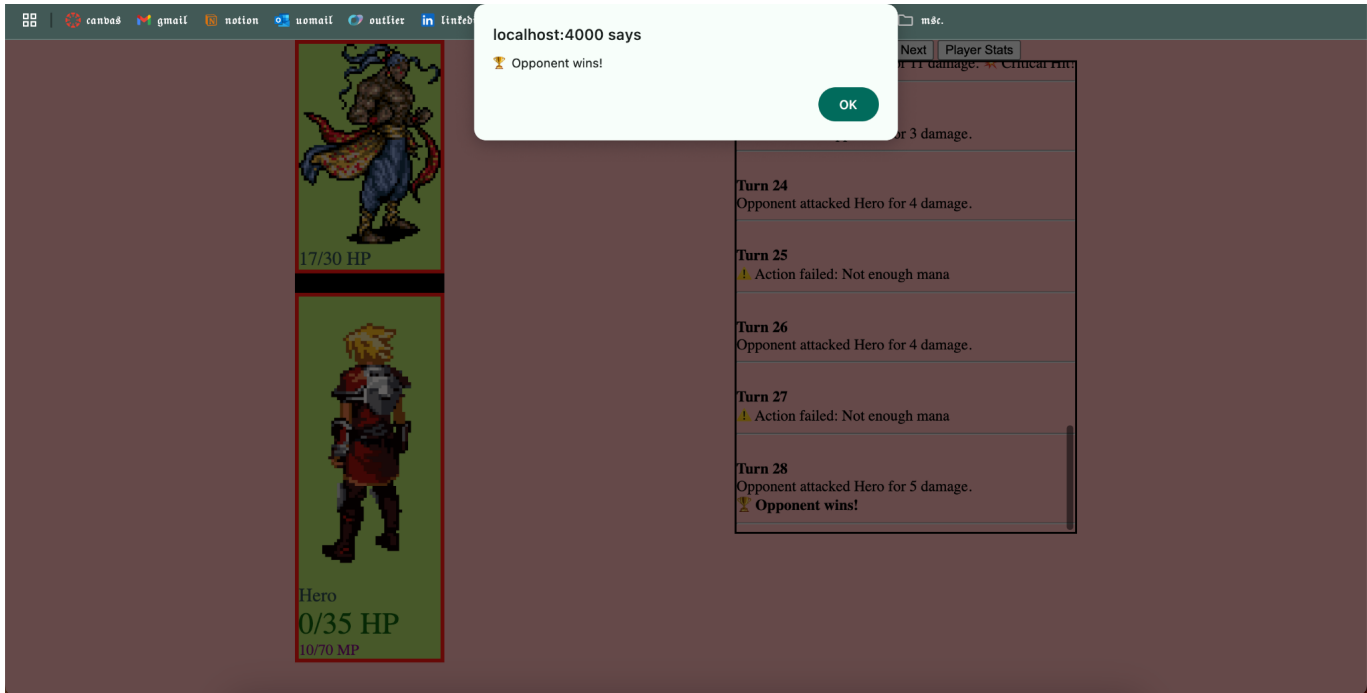


Early game: player turn and critical hit recorded.



Late game: player loses, red flash and victory alert.

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Late game: player wins, yellow flash and win alert.

