Week 2 Individual Report

Project Title: Broken Calculator
GitHub URL: https://github.com/likhithnemani/broken-calculator

Links to an external site.

Milestones with deadlines:

- M1 (2/6 - 2/20): Flask App Setup
- M2 (2/20 - 3/10): Calculator UI
- M3 (3/10 - 3/20): Implement Algorithm
- M4 (3/20 - 4/5): Login, Register and store progress
- M5 (4/5 - 4/16): Implement an algorithm to solve puzzles without using help from the database
- M6 (4/16 - Finals): Testing for bugs and improving the visual design

Front-end and back-end technologies:

Front-end: Angular

Back-end: Flask, Python

Algorithms/AI schemes used in the core engine: The enhanced algorithm for generating solvable target numbers with given operands and operators introduces a parameter for controlling complexity. This modification allows the user to specify the maximum number of iterations (`max_iterations`). The algorithm starts with a random operand as the initial target number and iteratively applies random operators and operands, updating the target number accordingly. By limiting the number of iterations, the algorithm controls the complexity of the generated target numbers. This provides flexibility in adjusting the difficulty level of the broken calculator game, making it more adaptable to various user preferences and playability requirements.

Marketspace / Selling point: The broken calculator puzzle is an interactive and educational tool that engages users in problem-solving and algorithmic thinking through entertaining mathematical challenges