Review Week Pt. 1

AGENDA

- Problem Walkthrough

- Breakout Session

- *Final comprehensive Hackerrank test next week*

- *Please post questions in Slack channel*

Problem Walkthrough

PROBLEM WALKTHROUGH: UNIQUE PATHS III

- Return the number of 4-directional walks from the starting square to the ending square, that **walk over every non-obstacle square exactly once**
- [Leetcode Link](#)

PROBLEM WALKTHROUGH: UNIQUE PATHS III RECAP

- *Backtracking: Incrementally building a solution and abandoning ("backtracking") from a candidate solution once realizing it's not a valid solution*
- In this problem:
    - Incrementally find our solution via recursive DFS
    - Backtrack when we go out of bounds, find an invalid cell, or when we find the goal cell but haven't visited all the other cells once

Breakout Session

- Feel free to solve them individually or as a group using UMPIRE
- If you're doing it individually, make sure to talk about the solution for each question as a group

BREAKOUT SESSION RECAP

- Path w/ Max Gold
  - Using backtracking and DFS to try out all possible paths
- Unique Paths
  - Using bottom-up dynamic programming
- Advantage Shuffle
  - Using greedy