D&D Combat Organization Tool

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Project Goal

Create a combat map making tool for Dungeons & Dragons 5th Edition. This project will allow users to generate a map on a grid using different coloured tiles to indicate different kinds of terrain, as well as place players on the map and show distances that they could potentially move to. We will potentially also develop a display to show the current hit points and status conditions of any pieces on the map, add ways to deal with three-dimensional battles, and display any area effects players or monsters may create.

Pieces to Implement

We have to implement a grid layout that the user can add map tiles to, allowing them to create a battle map. We will also need functionality to switch between edit mode and play mode, as well as implement distances by double-clicking on players/enemies. We will need to create classes for Players and Enemies, and if we have time, include ways to easily input their stats and manage those stats as the combat progresses. If we have time, we will try to implement an initiative tracker that will track the initiative of all players and monsters and highlight who's turn it is. We will also keep track of rounds. This will mostly take place in a different window from the map. We also want to implement a damage calculation tool where a player can input the damage they take and the damage type, and the program takes into account their resistances and such and alters the damage accordingly. We will implement this if we have time.

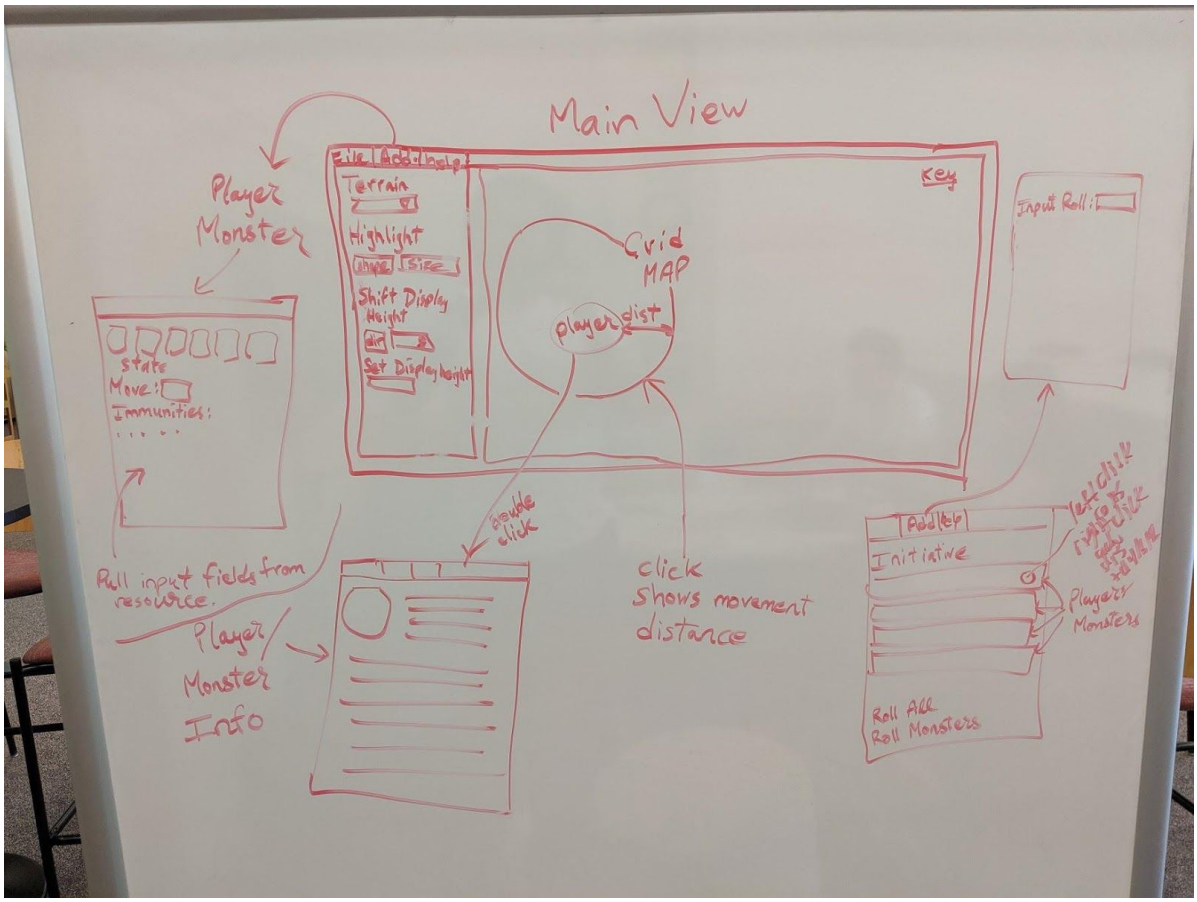
Design Patterns

We will probably use the MVC design pattern as we have a lot of changing states and moving pieces, and the MVC design pattern works well to handle this. We will have our map be our main view and as things change in the view (damage is taken, players move, etc) we will have models that will handle the state of

players/monsters (damage taken, status conditions, etc) as well as any other stats that they might have, and our controller will update the states as things happen in our view.

GUI Sketch

We've included our initial mockup for our project's main views below.



Team Roles/Tasks:

Danny, Daniel: Map, initiative

Ankit, Ginnie: Player/monster handling

We plan to meet up in pairs, and sometimes trios, to code. We doubt we'll be able to get everyone together at once that often, because synchronizing 4 schedules is difficult. Unfortunately, Daniel doesn't

have a consistent IntelliJ-using machine, and Ginnie's has had issues, so we'll want pairs to make sure we can reliably write code usefully. We will, of course, be using Git to keep everybody synced.