# DnDeity
# Team 22 - Sprint 3 Retrospective

Benjamin Crumbacher, Nicholas Fordyce, Christian McKain, Riley Turnbull

## What went well?

We completed all of the user stories for this sprint. A user can create a lobby, other users can join those games, the host can start the game then the characters can load in and the game can be played, including updating locations of the characters and some values for characters and monsters. They can also create a monster, and have an avatar for their character, which appears in multiple locations throughout the app. Users are also able to create notes and roll dice, both of which should aid them in the game.

1. As a dungeon master, I would like to be able to make a lobby to host a game

| Number | Description | Time | Owner |
|---|---|---|---|
| 1 | Research pusher | 1hr | Nicholas |
| 2 | Design component for creating a lobby | 2hr | Nicholas |
| 3 | Design map selecting component | 2hr | Nicholas |
| 4 | Add functionality for creating a room | 3hr | Nicholas |
| 5 | Add x and y coordinates, avatar, and notes to characters in server and database | 5hr | Ben |
| 6 | Create get username endpoint | 1hr | Ben |
| 7 | Ensure pusher works on frontend hosting | 1hr | Ben |
| 8 | Testing (Write manual test) | 1hr | Ben |

We completed all of the tasks for this story. On the home screen there is a button that displays a modal allowing users to make a lobby for others to join and select a map for that game. Once the user clicks "Start Game", they are taken to the game screen.

2. As a player, I would like to be able to join a game

| Number | Description | Time | Owner |
|---|---|---|---|

| | | | |
|---|---|---|---|
| 1 | Design component for joining a game | 2hr | Nicholas |
| 2 | Design character select when joining | 2hr | Nicholas |
| 2 | Add functionality for joining a room | 3hr | Nicholas |
| 3 | Redirect to game screen | 2hr | Nicholas |
| 4 | Testing (Write manual test) | 1hr | Ben |

We completed all of the tasks for this story. On the home screen there is a button that displays a modal allowing users to join a lobby by entering the code and select the character they'd like to play as. Once the dungeon master clicks "Start Game" the player is redirected to the game screen.

3. As a player, I would like my character to have an avatar

| Number | Description | Time | Owner |
|---|---|---|---|
| 1 | Add icon selection feature to character creator | 1hr | Riley |
| 2 | Save selected Icon to character id | 1hr | Riley |
| 3 | Testing (Write manual test) | 1hr | Riley |

We completed all of the tasks for this story. On the character creator a user can select which avatar they want their character to have. Their selection is saved with their character.

4. As a user, I would like to be able to roll multiple dice and add bonuses to the roll

| Number | Description | Time | Owner |
|---|---|---|---|
| 1 | Create drop down menu with all dice | 4hr | Christian |
| 2 | Make pictures of all 7 dice | 3hr | Riley |
| 3 | Allow a user to choose multiple dice and add modifiers | 3hr | Christian |
| 3 | Testing (Write manual test) | 1hr | Christian |

We completed all of the tasks for this story. The dice tray is accessible at anytime for any user other than while logging in. You can roll any die between d4 and d20. You can roll more than one of any given die at a single time and add a bonus. Lastly you will know when you roll absolute minimum and maximum by the color green and red on the result.

5. As a user, I would like to be able to move players and npcs around the map

| Number | Description | Time | Owner |
|---|---|---|---|
| 1 | Design map view on game page | 2hr | Nicholas |
| 2 | Add Drag and Drop functionality | 3hr | Nicholas |
| 3 | Drag and Drop changes happen in real-time | 3hr | Nicholas |
| 4 | Manually Test Drag and Drop | 1hr | Nicholas |

We completed all of the tasks for this story. Players can see their characters on the map screen and move them to different spaces. Other players in the same game can see these movements happen in real time.

6. As a dungeon master, I would like to have initiative order sorted for me

| Number | Description | Time | Owner |
|---|---|---|---|
| 1 | Add combat button to ingame nav bar | 1hr | Nicholas |
| 2 | Send initiative request to players | 3hr | Nicholas |
| 3 | Design component for entering initiative | 1hr | Nicholas |
| 4 | Send initiative response to dungeon master | 3hr | Nicholas |
| 5 | Design component for keeping initiative order | 3hr | Nicholas |
| 6 | Testing (Write manual test) | 1hr | Ben |

We completed all of the tasks for this story. The dungeon master can press a button that sends an initiative request to all players. The players can then send the value they get for initiative back to the dungeon master. The players are sorted automatically for the dungeon master based on these values.

7. As a player, I would like to have a tab to write down notes during the game

| Number | Description | Time | Owner |
|---|---|---|---|
| 1 | Add notes tab to ingame nav bar | 10min | Christian |
| 2 | Create React draggable text field | 4hr | Christian |
| 3 | Save changes to character | 3hr | Christian |
| 4 | Create new notes field to character sheet | 1hr | Ben |

| 5 | Testing (Write manual test) | 1hr | Christian |

We completed all of the tasks for this story. The player is able to select the notes button from the ingame navbar and the site navbar. All information added is saved to the individual character and anything can be typed into the section.

8. As a dungeon master, I would like to update the stats of monsters in fights

| Number | Description | Time | Owner |
|--------|-------------|------|-------|
| 1 | Create a button to modify the stats of a monster | 1hr | Riley |
| 2 | Develop a way to choose the monster to modify | 1hr | Riley |
| 3 | Update the monster stats in the map | 1hr | Riley |
| 4 | Testing (Write manual test) | 1hr | Riley |

We completed all of the tasks for this story. A dungeon master can select a monster by clicking on them, and then update their hp and armor class according to how the fight is playing out as well as view their available effects and abilities, write notes for status effects, monster traits, or whatever else they find fitting, and even kill the monster, removing it from the map in future loads.

9. As a developer, I would like to improve the styling of the website

| Number | Description | Time | Owner |
|--------|-------------|------|-------|
| 1 | Make create user page consistent with other login pages | 2hr | Christian |
| 2 | Make the home page visually interesting | 3hr | Christian |
| 3 | Make ability score section work better with different aspect ratios | 3hr | Christian |
| 4 | ~~Make feat section similar to Spells and monster in levelup~~ | ~~4hr~~ | ~~Christian~~ |
| 5 | Testing (Write manual test) | 1hr | Christian |

We completed almost all of the tasks for this story. The home page now has visually appealing buttons instead of a list of links. We also made some minor fixes like making components react dynamically to different sizes, and making pages visually consistent.

10. As a dungeon master, I would like to add monsters to a bestiary

| Number | Description | Time | Owner |
|---|---|---|---|
| 1 | Create New monster Button on home page | 30 min | Christian |
| 2 | Monsters Tab on nav bar | 30 min | Christian |
| 3 | Design Description Section | 2hr | Christian |
| 4 | Design Combat Section | 2hr | Christian |
| 5 | Design Ability Scores Section | 2hr | Christian |
| 6 | Design Skill / Scenes Section | 2hr | Christian |
| 7 | Design Ability Section | 2hr | Christian |
| 8 | Design Action Section | 2hr | Christian |
| 9 | Design Legendary Section | 2hr | Christian |
| 10 | Backend endpoint for saving monsters | 2hr | Ben |
| 11 | Add user id to all existing monster | 2hr | Ben |
| 12 | Build and handle server requests/responses on frontend | 4hr | Christian |
| 13 | Testing (Write manual test) | 1hr | Christian |

We completed all of the tasks for this story. A user is able to create a new monster by visiting the Monster Maker page. From the page they can fill out all the characteristics of monsters our service tracks. Lastly once a user has finished the new monster is added to the database.

11. As a player, I would like to see my character sheet during a game

| Number | Description | Time | Owner |
|---|---|---|---|
| 1 | See Name, Description, etc | 1hr | Riley |
| 2 | See ability scores and modifiers | 2hr | Riley |
| 3 | See armor class, initiative, and hp | 3hr | Riley |
| 4 | Have the ability to update armor class | 2hr | Riley |
| 5 | See equipment, spells, and attacks available to the character | 7hr | Riley |
| 6 | Design a way for the dungeon master to retrieve a | 8hr | Riley |

| | character sheet for a character in a room | | |
|---|---|---|---|
| 7 | Testing (Write manual test) | 1hr | Riley |

We completed all of the tasks for this story. A user can effectively see all of their available traits including descriptions for their spells and equipment and languages, proficiencies, and skills sorted regardless of where they chose them. They can also update their characters armor class and hp, which also persist for the dungeon master as well. The dungeon master can also select a character sheet for any character in the game to view, and see all of the information also available to the character.

12. As a developer, I would like to improve the security of DnDeity.

| Number | Description | Time | Owner |
|---|---|---|---|
| 1 | Convert all HTTP calls to HTTPS | 2hr | Ben |
| 2 | Convert HTTP to HTTPS in AWS | 5hr | Ben |
| 3 | Implement user id hashing | 2.5hr | Ben |
| 4 | Implement user password hashing | 2.5hr | Ben |
| 5 | Implement get character security | 2hr | Ben |
| 6 | Implement frontend get character security | 1hr | Riley |
| 7 | Testing (Write manual test) | 2hr | Ben |

We completed all of the tasks for this story. All http requests to www.dndeity.com are redirected to https. Users cannot access the website from the S3 bucket URL. We implemented basic hashing to improve security.

# What did not go well?

While we did complete all of our features for this sprint, some of them still have bugs present. During our sprint demo one of features crashed due to us not having enough time to test it. There were also some tricky errors that popped up in different environments. These features that worked perfectly on some of our machines but were broke on others were especially hard to find and debug.

**User story 9**

| 4 | Make feat section similar to Spells and monster in levelup | 4hr | Christian |
|---|---|---|---|

This was the only task that we didn't finish this sprint. User story 9 was just about making many visual improvements to the site, so it wasn't a big deal if we didn't get to all of these tasks. We focused more effort on the new features that were introduced this sprint.

# How should we improve?

One of the things that we did effectively this sprint was to develop some of our components in isolation, and then put them together. This allowed us to work on different features at the same time, without having to wait for another group member to get done. Working on projects in this manner will let us work faster and have less buggy features.

We also probably should test our app thoroughly on lots of different environments and systems to help determine bugs that only appear occasionally on certain systems which was a particular problem we had this sprint. We honestly probably could have devoted an entire sprint just to testing robustness, reliability, and playability of our game, but we just didn't have the time to do that thorough of a test in this sprint.

Lastl, we should consider asking for outside opinions of the current state of the project. One particular instance of this was during our review when we were provided fairly good suggestions of how to improve our project and features we should have considered. Taking time during the middle of development would be good to learn what features are important to people, as we didn't know everything that users would want out of our app at the very beginning.