

# System and Unit Test Report: dndsip.ga, Team DNDSIP,

## November 29, 2018

**System Test scenarios (25 points per sprint – total 75 points):** You have identified user stories (that map to user requirements/functionality for your system) completed for each sprint (in that sprint's report). You will be using scenario-based testing. Scenario based testing focuses on how the user uses the system and allows for multiple user roles as well as multiple functions provided for each user role.

For each sprint, list the user story or stories and the scenario or scenarios that show 'coverage' of those user stories. A scenario is a list of system level actions (including precise input and output) a user would follow to determine that each user story has been completed.

**Scenario A:** A user wants to create an account and save a character sheet.

*High Level: Create an Account and Login.*

*Associated User Stories:*

Sprint 2, Story 2. As a user, I would like to be able to create an account. - *Scenario A*  
Sprint 2, Story 3. As a user, I would like to be able login to the webpage so that I can access my saved data. - *Scenario A*

### Instructions.

1. Navigate to <https://dndsip.ga/>, select 'Sign-up for an account'; type
    - a. Username = <Bob123>
    - b. Password = <123456>
    - c. Confirm Password = <123456>
    - d. Press 'Register'
    - e. User should see verification message 'New account registered. Login Below'
  2. User is prompted to login with new account; type
    - a. Username = <Bob123>
    - b. Password = <123456>
    - c. Press 'Login'
  3. Get redirected to the character list page. *Congratulations! You're done!*
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**Scenario B:** A DM wants to run a battle for his two players, 'Bobert' and 'Cassie', who are fighting the monstrous bunny 'Angie'. This assumes that the 'Bob123' account with password '123456' has been created (see initial scenarios). If not, register first. Bobert forgot their dice, so the DM will roll initiative for him.

*High Level: Dice roller and turn tracker.*

*Associated User Stories:*

Sprint 2, Story 1. As a user, I would like to have access to a drop down menu dice roller that I can access from my character sheet or from the DM tools screen.

Sprint 4, Story 1. As a DM, I would like to have a space for me to input initiative rolls and then have those rolls sorted, and then I would like to be able to tell which turn I am on so that I can do this easily.

### Instructions

1. Go to [dndsip.ga](https://dndsip.ga). User is prompted to login; type
  - a. Username = <Bob123>
  - b. Password = <123456>
  - c. Press 'Login'
2. You should now be at the character list page. We want to go to 'DM Tools' now.
  - a. Click 'DM Tools'.
  - b. We now see the DM Tools page.
3. You are now on the DM Tools page. We want to add a turn for 'Bobert'. Bobert is an ally and doesn't have his dice. The DM will roll for him.
  - a. Click the dice symbol in the top right corner that has the text 'd20' in the center. Observe that the bar in the top-right corner expands.
  - b. Enter '1' in the left-most input box to the left of the 'd'. This represents the # of dice rolled.
  - c. Enter 8 in the input box to the right of the 'd'. This represents the # of faces on the die rolled. (So we are rolling 1 8-sided die.)
  - d. Observe that there is a '+'. This represents a positive modifier to the die.
  - e. Enter '4' in the input box to the right of the '+'. This represents the modifier to the die. Now your dice reads '1d8+4' or 'roll 1 8-sided die, then add 4'.
  - f. Click the 'Roll!' text. Observe that a number result appears. This number will be random, from 5 to 12 (it is a random value, not controllable, the result is a value 1 to 8, plus 4). This value is Bobert's initiative.

- g. Observe that the roll value appears in the die symbol in the top right corner. Click the top right corner 'dice' symbol. Observe that the dice roll menu contracts, but the last roll remains visible for reference.
4. From Step 3, we now have an initiative roll for Bobert. Now we have what we need to create a turn in the tracker for Bobert. Let's do this.
  - a. Enter 'Bobert' in the bottom left of the page where it says 'Character Name'. Enter the roll value from Step 3 in the 'Roll' input box (will be 5-12). Do not click the checkbox, Bobert is an ally. Click the 'Add' button
  - b. Observe that a green (for ally) background entry appears below 'Current Turn'. This entry has Bobert's name, his roll (from 5 to 12, variable), and a red delete button - this will delete Bobert's turn from initiative.
5. We want to add a turn for the bunny Angie. Angie is a very fast bunny, who has an initiative roll of 18 this fight.
  - a. Enter 'Angie' in Character Name and '18' in the 'Roll' input.
  - b. Angie is an enemy. Click the 'enemy' checkbox. Hit 'add'.
  - c. Observe that Angie now has a turn with a red background (Angie is an enemy).
  - d. Observe that Angie's turn has her name, her roll (18), and a red delete button.
  - e. Observe that Angie's turn is now underneath 'Current Turn' and Bobert's turn has moved underneath the 'Next Turn' header.
6. Now we want to add the last character, Cassie. Cassie springs to her feet, moving faster than Bobert. Angie rolls 15 for her initiative.
  - a. Enter 'Cassie' in Character Name and '15' in the 'Roll' input. Uncheck the 'Enemy' checkbox - Cassie is not an enemy.
  - b. Click the 'Add' button. Observe that Cassie's turn is added to the Tracker.
  - c. Observe that Cassie's turn has her name, roll (15), and a red delete button. Observe that her background for her turn is green, because she is an ally.
7. Now that all characters are in the turn tracker, the DM wants to run through two rounds of combat. This means that each character gets a turn, and then it is the next person's turn in the Turn Order (displayed by the tracker.)
  - a. Angie the Bunny takes her turn. Her turn is complete. Hit the 'Next Turn' button.
    - i. Observe that Angie's turn goes to the bottom of the list, and that every other turn shifts up one. Now Cassie is underneath the 'Current Turn' header, Bobert is under the 'Next Turn' header, and Angie is lower.
  - b. Cassie takes her turn. Hit the 'Next Turn' button once her turn is done.
  - c. Bobert takes his turn. Hit the 'Next Turn' button once his turn is done.

- d. Angie takes her turn. Hit the 'Next Turn' button once her turn is done.
  - e. Cassie takes her turn. Hit the 'Next Turn' button once her turn is done.
  - f. Bobert takes his turn. Hit the 'Next Turn' button once his turn is done.
  - g. Six turns have passed (we have clicked the 'Next Turn' button six times total). Observe that the turn tracker has spun in a full circle twice. Observe that Angie is once more at the top of the Turn Tracker.
8. At this point, click the 'Next Turn' button two more times to represent that it is now Bobert's turn. Bobert will land the finishing blow on Angie the Bunny.
    - a. Bobert's turn has arrived and he finishes Angie off. To represent this, click the red circle button with a minus (the delete button) on Angie's turn.
    - b. Observe that upon clicking that button, Angie's turn vanishes from the turn tracker.
  9. Cassie and Bobert have won the fight, the battle is over. Click the 'delete' button for both turns to clear the Turn Tracker.
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## **Scenario C:** A user wants to save a character sheet.

*High Level: Save a character sheet.*

### *Associated User Stories:*

Sprint 2, Story 4. As a player, I would like to be able to input my data into a character sheet that mirrors the physical copy so that I can safely and conveniently store information about my goals. (CSS/HTML)

Sprint 3, Story 1. As a player, I would like my character sheet to be loaded on the character selection page. It should also say a little bit about each character.

Sprint 3, Story 2. As a player, I would like my character sheet to automatically calculate any stat modifiers based on the stat I can avoid having to do any extra calculations.

Sprint 3, Story 3. As a player, I would like to be able to create a new character sheet when I do not already have one.

Sprint 3, Story 4. As a Product Manager, I'd like there to be a basic skeleton for the character sheet's php elements so that it is clear and organized. - *Architecture Decision / Not provable / Implicit in Scenario C's save/load.*

Sprint 4, Story 3. As a player, I would like to load an existing character sheet.

Sprint 4, Story 4. As a player, I would like to save a character sheet I am working on.

## **Instructions.**

1. Log into your account as in Scenario A. (If account not registered, see Scenario A)
  - a. Username = <Bob123>
  - b. Password = <123456>
  - c. Press 'Login'
2. User is redirected to DND SIP: Character Selection page where they can see their saved character sheets. Each saved character sheet will have that character's Level, Name, Race, and Class shown for the User to view.
  - a. To update an existing Character Sheet, click the ">" button on that respective Character. The User will then be redirected to the Character Sheet page with all that Character's Information prepopulated.
  - b. In a newly created account, there will be no saved character sheets to load, click on 'Create Character' to start a new character sheet.
  - c. Once clicked, the User will be redirected to the Character Sheet page for the User to fill out character information for their new character.
  - d. Once finished entering the information, in the top left corner there are 3 Options: 'Save', 'Characters', 'Logout'
  - e. Clicking 'Save' will save all the Character Information and the User will remain on the Character Sheet page.
  - f. Clicking 'Characters', will also save the Character Information and will redirect the User back to the Character Selection Page.
  - g. Clicking 'Logout', will also save the Character Information and will log the user out and redirect the User back to the login page.
3. Inside new character sheet, you have a blank set of fields. The user now wants to fill in the sheet.
  - a. Go to 'Character Name' and enter 'Jimmy John'
  - b. Go to 'Class' and enter 'Monk'
  - c. Go to 'Level' and enter 12.
  - d. Go to 'Race' and enter 'Muncher'
  - e. Go to 'Alignment' and enter 'Lawful Good'
  - f. Now fill out some basic stats:
  - g. Go to Strength and enter 10, go to Dexterity and enter 12, go to Constitution and enter 15, go to Intelligence and enter 13, go to Wisdom and enter 9, go to Charisma and enter 16. *Observe* that the dashes beneath each number convert to a modifier, Strength = 0, Dexterity = 1, Constitution = 2, Intelligence = 1, Wisdom = -1, Charisma = 3.
  - h. *Observe* that Saving throws are now [0, 1, 2, 1, -1, 3]. *Observe* that Skills have also adjusted their values (for example, Acrobatics is a Dexterity Skill, so it is 1. Survival is a Wisdom Skill, so it is -1).

- i. Now enter a Proficiency Bonus of 4. Observe that nothing in the page has changed, because no checkboxes are clicked.
- j. Go to Saving Throws and click the checkbox next to Constitution and Charisma. Observe that these values change from [2 and 3] to [6 and 7]. This is because this character is 'proficient' in them, and thus adds the proficiency bonus.
- k. Go to skills. Observe that manual entry is not checked. This means all values are calculated for you. Observe that all input boxes are read only under Skills.
- l. Now click the checkbox next to 'Arcana' and 'Performance'. Observe that, now adding the proficiency bonus, these values are now 5 and 7 (originally 1 and 3).
- m. Now click 'manual entry'. This means that you are ignoring calculations and entering your own values. Observe that text boxes are now editable.
- n. Click the checkbox next to Arcana (now unchecked). Observe the value doesn't change. Change the value of Arcana to 3.
- o. Click the checkbox next to Arcana again (now checked). Observe the value doesn't change (because manual entry is clicked).
- p. Now click the manual entry checkbox again (now unchecked). Change the proficiency bonus from 4 to 3. Observe that the Constitution saving throw changes from 6 to 5, Charisma saving throw changes from 7 to 6, Arcana changes from 3 to 4 (because we had changed it via manual entry before), Performance changes from 7 to 6.
- q. Go to 'passive wisdom (perception)' and enter '12'.
- r. Go to 'Other Proficiencies and Languages' and enter 'Sandwiches'.
- s. Go to the armor symbol with 'AC' as a placeholder and enter 14. Enter '1' in initiative, '30' in speed.
- t. Type '50' and '57' in the two 'HP' boxes (50 / 57 ).
- u. Type '12' and '12' in the two 'Hit Dice' boxes.
- v. Go to the table with 'Name', 'Atk Bonus', 'Damage/Type' (the Weapons Table): Go to row 1 of this table. Enter 'Tuna Salad' in the 'Name' column, '13' in the 'Atk Bonus' column, '1d8' in the damage/type column.
- w. Now we do spells. Go to 'Spell Slots' and enter '1' and '1' in the two input boxes below '1st'. Go to the bottom-most table that has 'Spell', 'Lvl', and 'Description' as its header (this is the Spells Table). For row 1: Enter 'Eat' in the 'Spell' column, enter '1' in the 'Lvl' column, enter 'EAT GOOD' in the 'Description' column.

- x. Now, click the 'Add Weapon' and 'Add Spell' buttons. Observe how each table adds one row to the table. Then click 'delete weapon' and 'delete spell' buttons, observe how each table deletes the bottom-most row.
  - y. Now, we move onto column 3.
  - z. Go to 'Traits' and enter 'Likes making good food.'
  - aa. Go to 'Ideals' and enter 'Good food should be shared with the world.'
  - bb. Go to 'bonds' and enter 'I love my customers and friends.'
  - cc. Go to 'flaws' and enter 'I focus too much on taking people to flavortown.'
  - dd. Go to 'features and traits' and enter 'Create amazing sandwiches (5/day), Serve refreshments (3/day), Capitalism (1/long rest)'
  - ee. Now navigate to the inventory table. Observe that there is a 'Gold' input text box above the table header. Enter '5 platinum, much respect, and a Mastercard - priceless' into the text box.
  - ff. Click the '+' button below the inventory table. Observe that a new row is added. Click '+' 3 more times to get a total of 4 rows.
  - gg. Hit the '-' button below the inventory table 3 times, observe that the last row is deleted 3 times (leaving 1 row remaining).
  - hh. Go to the '#' column of row 1, enter '1'. Go to the 'Item' column of row 1, enter 'Frog'. You have now entered 1 Frog into the inventory table.
  - ii. Hit the 'Save' button in the top left corner.
  - jj. Hit the 'Characters' button to return to the Character Selection/Character List page. Observe that there is now a new entry in the Character List page, with 'Level: 12', 'Name: Jimmy John', 'Race: Muncher', 'Class: Monk' and an arrow '>'. This is the short 'snapshot' of the character.
  - kk. Click on the '>' button for the Jimmy John character. The character sheet loads. Observe that all the fields are populated with the values we entered before.
  - ll. Now change the value of 'Constitution' to '16'. Observe that the number below changes from '2' to '3' and under Saving Throws, 'Constitution' is now 6 instead of 5.
  - mm. Now let's click the 'Characters' button in the top left *without* clicking the save button. Then click the 'Jimmy John' character and observe that Constitution is still 16 and our other changes have remained, without directly clicking the 'save' button.
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## Scenario D: A DM wants to save some notes about their players.

*High Level: Taking notes.*

### *Associated User Stories:*

Sprint 4, Story 2. As a DM, I would like to have a space to take notes which supports a custom markdown language (the markdown language only needs bullet points, bold, and italics) so that I can keep track of information about my players. - *Scenario D*

### **Instructions.**

1. Login to your account as in Scenario A (If account not registered see Scenario A)
  - a. Username = <Bob123>
  - b. Password = <123456>
  - c. Press 'Login'
2. User is now redirected to the DND SIP: Character Selection Page where they can create their characters, see their created character and go to DM Tools.
  - a. Scroll down to the bottom of the page and click 'DM Tools' which will redirect the user to the DM Tools page.
  - b. On this page you should see a turn tracker which is used to keep track the turn order depending on initiative.
  - c. There should also be a markdown text editor which allows the DM to write notes and is saved into the database.
3. In the text editor on the right side of the page the user can input their notes into the markdown
  - a. Input notes that you want into the text editor
  - b. For information about the markdown click the (i) icon next the the eye icon which will navigate onto a page with info about the markdown.
  - c. If you click 'save' on the page then your notes will be saved into the database and will show up the next time you navigate to the page.

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## **Completed User Stories Index:**

*Format:* <User Story #> <User Story Description> <Location of User Story>

### *Sprint One. (7)*

1. As a developer, I would like all of our team members to have a basic understanding of



the JavaScript language so that they can work on the website. - *Not provable/research task.*

2. As a developer, I would like all of our team members to have a basic understanding of CSS and HTML so that they can work on the website. - *Not provable/research task*

3. As a developer, I would like all of our team members to learn how to interact with the pages on our web server so that our developers can edit the website. - *Not provable/research task*

4. As a developer, I would like all of our team members to have a basic understanding of digitalocean.com in so that they can monitor and make any changes necessary to our site. - *Not provable/research task*

5. As a developer, I would like all of our team members to have a basic understanding of the JQuery language so that they can work on the website. - *Not provable/research task*

6. As a developer, I would like all of our team members to have a basic understanding of PHP so that they can work on the website. - *Not provable/research task*

7. As a developer, I would like all of our team members to learn how to interact with the database on our web server so that our users can store data on the site. - *Not provable/research task*

#### *Sprint Two. (4)*

1. As a user, I would like to have access to a drop down menu dice roller that I can access from my character sheet or from the DM tools screen. - *Scenario B*

2. As a user, I would like to be able to create an account. - *Scenario A*

3. As a user, I would like to be able login to the webpage so that I can access my saved data. - *Scenario A*

4. As a player, I would like to be able to input my data into a character sheet that mirrors the physical copy so that I can safely and conveniently store information about my goals. (CSS/HTML) - *Scenario C*

#### *Sprint Three. (4)*

1. As a player, I would like my character sheet to be loaded on the character selection page. It should also say a little bit about each character. - *Scenario C*

2. As a player, I would like my character sheet to automatically calculate any stat modifiers based on the stat I can avoid having to do any extra calculations. - *Scenario C*

3. As a player, I would like to be able to create a new character sheet when I do not already have one. - *Scenario C*

4. As a Product Manager, I'd like there to be a basic skeleton for the character sheet's php elements so that it is clear and organized. - *Architecture Decision / Not provable / Implicit in Scenario C's save/load.*

#### *Sprint Four. (6)*

1. As a DM, I would like to have a space for me to input initiative rolls and then have those rolls sorted, and then I would like to be able to tell which turn I am on so that I can do this easily. - *Scenario B*

2. As a DM, I would like to have a space to take notes which supports a custom markdown language (the markdown language only needs bullet points, bold, and italics) so that I can keep track of information about my players. - *Scenario D*
3. As a player, I would like to load an existing character sheet. - *Scenario C*
4. As a player, I would like to save a character sheet I am working on. - *Scenario C*
5. As a developer, I would like unit testing implemented in the registration page to make sure that it properly stores users and rejects invalid input - *Selenium Test.*
6. As a developer, I would like unit testing implemented on the login page so that I can validate that users are able to login based on what is in the database - *Selenium Test.*