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# Users

4 endpoints are required for management of the users collection. Two of them manage the user login features using POST requests. The other two manage the built-in character sheet associated with the logged in user. These methods include PUT and GET requests. Note there is no API endpoint required to manage user logout because the user context is stored in memory rather than in the database.

## /api/users/register

Method: POST

Purpose: Endpoint is responsible for managing user registration. This takes the registration form data and creates a new user with name, email, username, and password.

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Example workflow:

A diagram of a api

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## /api/users/login

Method: POST

Purpose: Endpoint is responsible for managing user login. This takes the login form data and sends it out for authentication such that the server can confirm credentials and generate the user context for the rest of the application.

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Example workflow

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## /api/users/{id}/character/form

Method: PUT

Purpose: This endpoint is responsible for creation and updates to the player character data that is stored. No POST exists as the initial creation of the document is handled when the user account is created. Any subsequent creation or update of a character comes from the submission of the form.

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Example workflow

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Method: GET

Purpose: This endpoint is responsible for getting the character data to prepopulate the character form whenever a user makes an update to their character.



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Example workflow

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## /api/users/{id}/character

Method: GET

Purpose: This endpoint is responsible for the display of the character sheet data in a viewable format for the player. This is required not to just display data from the database, but to calculate ability/skill modifiers, and determine armor class as well based on the [rules](https://www.dndbeyond.com/sources/dnd/br-2024/creating-a-character?srsltid=AfmBOooudzR4oTdmbdvaRj8MvYNtKT0I_P_lLXLCValt3b9_kVVsXXoW).

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Example workflow

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# Adventure Logs

3 endpoints are required for management of the adventure log collection. One endpoint creates the documents with a POST method. One endpoint updates/deletes documents using PUT/DELETE methods. One endpoint is used to display the appropriate data for the various log pages using a GET method.

## /api/adventurelog

Method: POST

Purpose: This endpoint is responsible for the creation of new documents that will be held in the adventure log collection. The data will come from the form filled out on the adventure log page.

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Example workflow

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## /api/adventurelog/{id}

Method: PUT

Purpose: This endpoint is responsible for sending updates to the log entry. The update is made directly from the location that the entry is displayed in, so the user can only edit the title and details once the initial entry is made.

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Example workflow

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Method: DELETE

Purpose: This endpoint is responsible for deleting the selected log entry from the collection. The endpoint updates the database, but is not responsible for making a new request to update the displayed page for the user.

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Example workflow

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## /api/adventurelog?type={type}

Method: GET

Purpose: This endpoint is responsible for getting the proper log entries to display based on the selected type. The filter by type allows the single endpoint to manage the four different log entry types.

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Example workflow

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# Random Monsters

1 endpoint is required for management of the random monsters collection. The endpoint has one GET method for encounter generation.

## /api/monsters?size={size}&level={level}&difficulty={difficulty}

Method: GET

Purpose: This endpoint is responsible for creating a unique encounter based on three inputs: party size, party level, and difficulty. The three inputs determine a range of XP. The API selects a random amount of random monsters from the collection. It then determines the XP of that encounter based on the [rules](https://www.dndbeyond.com/sources/dnd/basic-rules-2014/building-combat-encounters?srsltid=AfmBOopWCtQZu8TLQ4TSJ1KUhkVMpha-O0vqFtk_r2g-RCMu1f9xGeQz). It checks whether the encounter is within the XP range. If it is not, a new set of monsters is selected. Once a balanced encounter is found, the results can be sent back to the front end.

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A computer screen with text on it

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Example workflow

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# Random NPCs

1 endpoint is required for management of the random NPCs collection. The endpoint has one GET method for NPC generation.

## /api/npcs

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Purpose: This endpoint is responsible for retrieving a random NPC from the collection. Each document includes a first and last name as well as an image. The API will then select three random documents using the first name from the first, last name from the second, and image from the third to create a new random NPC. This new combination is then returned to be displayed.

Example workflow

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