

## Organizational Chart

- Identify the key flow of managerial instruction, employee output, and reporting.

There are two main types of novel sites, ignoring novel cataloging websites, such as Goodreads or NovelUpdates.

Free Site:

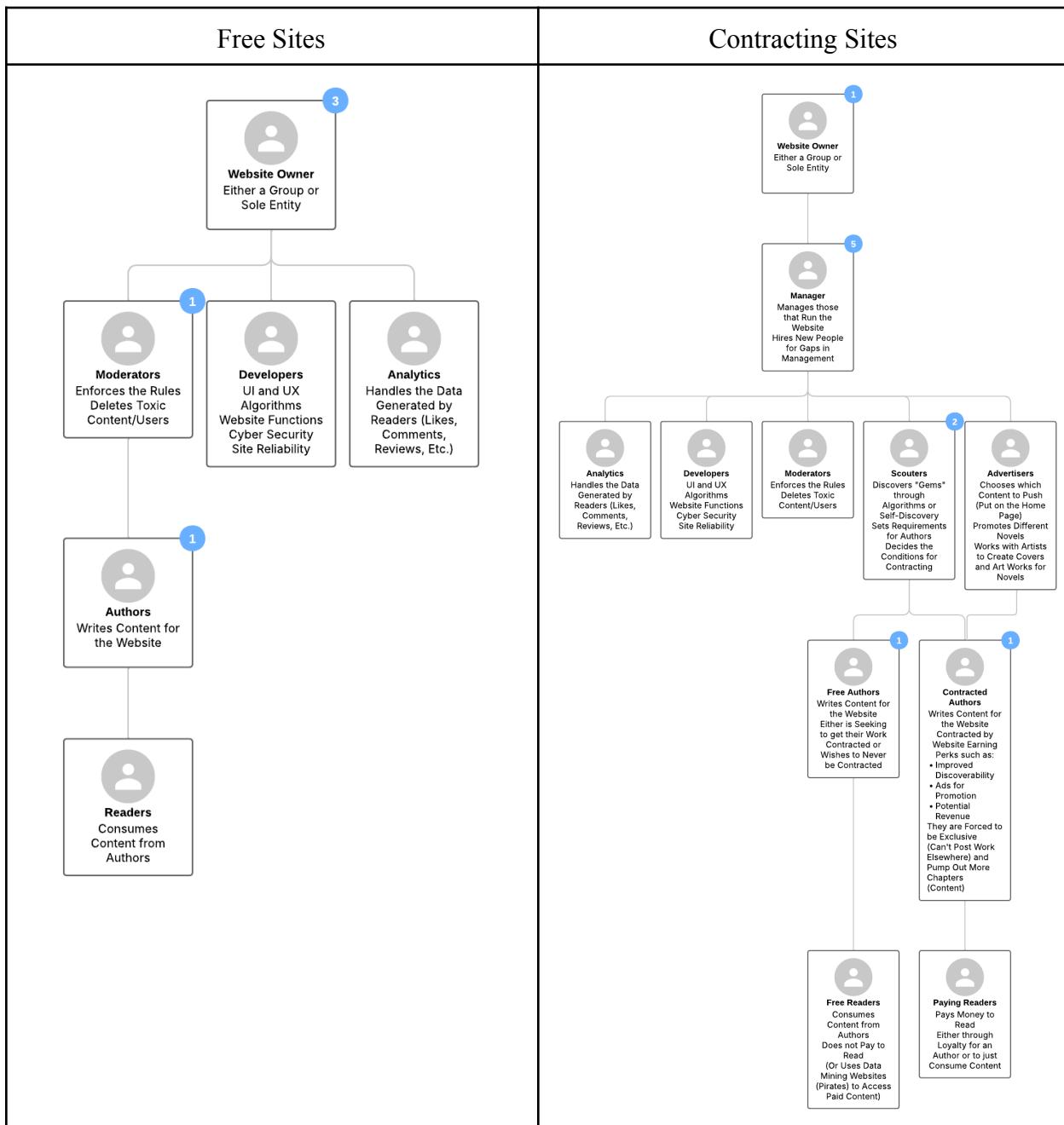
Site Owner → Site Moderator → Upload Website → Authors → Readers

Role/Component	Function	Flow Direction
<b>Company Owner/Tech Team</b>	<b>Manages Infrastructure, Sets Community Guidelines</b>	Top Down
<b>Author</b>	<b>Self-Publishes Content Directly (No Contract/Editorial)</b>	Author → Site
<b>Website/App Platform</b>	<b>Hosts Content (Immediate Publishing)</b>	Supports All
<b>Readers</b>	<b>Consume Content, Give Feedback (Ratings/Comments/Votes)</b>	Site → Readers ↔ Data
<b>Algorithms</b>	<b>Ranks Content Based on Free Reader Metrics (Views, Votes)</b>	Data → Site/Author
<b>Site Moderators</b>	<b>Enforces Community Rules, Handles Violation Reports</b>	Lateral

Contracting Site:

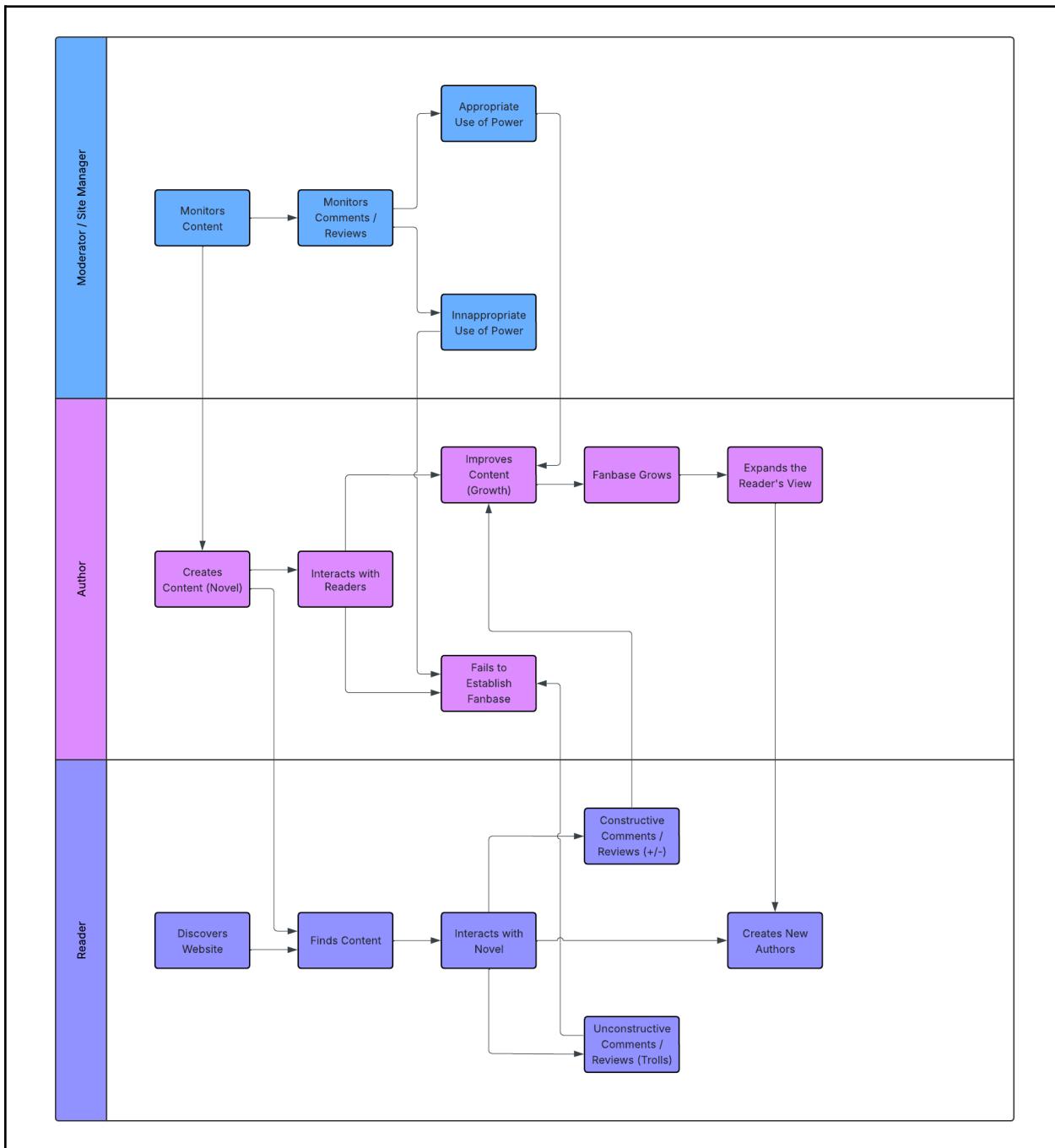
Company Owner (Novel Publishing [Online]) → Site Moderators → Website → Contractors and Talent Scouts (Mostly Algorithm) → Author → Novels → Readers

Role/Component	Function	Flow Direction
<b>Company Owner/Executive</b>	<b>Sets Business Strategy (Top-Level Management)</b>	Top Down
<b>Acquisition/Editorial Dept.</b>	<b>Scouts Authors, Negotiates Contracts, and Provides Guidance</b>	Top Down ↔ Author
<b>Author</b>	<b>Creates and Uploads Novel Chapters (Core Content)</b>	Author → Site
<b>Tech/Product Team</b>	<b>Maintains Website/App Platform and Features</b>	Supports All
<b>Algorithms</b>	<b>Filters Content, Manages Ranking &amp; Visibility using Reader Data</b>	Data → Site/Author
<b>Site Moderators</b>	<b>Enforces Rules and Handles Community Reports (Support Function)</b>	Lateral
<b>Readers</b>	<b>Consume Content, Purchase Chapters/Tokens, Provide Data</b>	Site → Readers ↔ Data



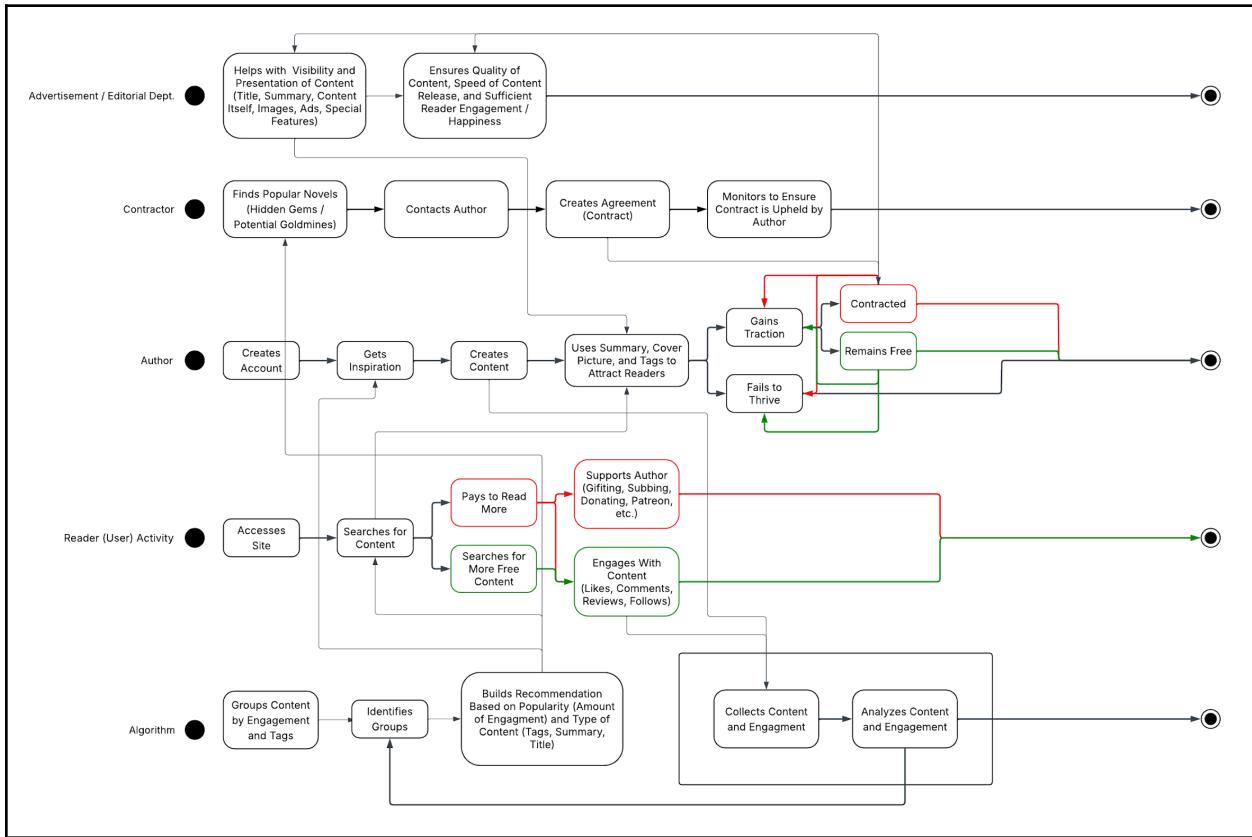
## Business Process Model Notation

- Compose a final graphic using a diagram tool.



## Activity Diagram

- Using a diagram tool.



## UI/UX Wire Frame

- Use a diagram tool (UI composer).

GitHub Link: [Advanced Novel Search Interface](#)

Screenshots:

The image displays four screenshots of the Novel Search Engine interface, arranged in a 2x2 grid. The top row shows the interface in light mode, and the bottom row shows it in dark mode. Each screenshot captures the search bar at the top, followed by several filter sections: Author, Summary Keywords, Popular Genres, Niche Tags, Fandoms, and Sorting Options. Below these sections is a prominent blue "Run Advanced Search" button.

**Top Left (Light Mode):**

- Author:** Search for novels by specific author names or keywords.
- Summary Keywords:** Use keywords found within the novel's summary description.
- Popular Genres:** Click to cycle through: \*\*Neutral (default)\*\* → \*\*Include (green)\*\* → \*\*Exclude (red)\*\*.
- Niche Tags:** Refine your search with specific, detailed tags. Use the same Include/Exclude logic.
- Fandoms:** Filter results related to specific popular fictional universes (shows, movies, comics, etc.).
- Sorting Options:** Choose the criteria and order for displaying your search results.

**Bottom Left (Dark Mode):**

- Author:** Search for novels by specific author names or keywords.
- Summary Keywords:** Use keywords found within the novel's summary description.
- Popular Genres:** Click to cycle through: \*\*Neutral (default)\*\* → \*\*Include (green)\*\* → \*\*Exclude (red)\*\*.
- Niche Tags:** Refine your search with specific, detailed tags. Use the same Include/Exclude logic.
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**Top Right (Light Mode):**

- Popular Genres:** Click to cycle through: \*\*Neutral (default)\*\* → \*\*Include (green)\*\* → \*\*Exclude (red)\*\*.
- Niche Tags:** Refine your search with specific, detailed tags. Use the same Include/Exclude logic.
- Fandoms:** Filter results related to specific popular fictional universes (shows, movies, comics, etc.).
- Sorting Options:** Choose the criteria and order for displaying your search results.

**Bottom Right (Dark Mode):**

- Popular Genres:** Click to cycle through: \*\*Neutral (default)\*\* → \*\*Include (green)\*\* → \*\*Exclude (red)\*\*.
- Niche Tags:** Refine your search with specific, detailed tags. Use the same Include/Exclude logic.
- Fandoms:** Filter results related to specific popular fictional universes (shows, movies, comics, etc.).
- Sorting Options:** Choose the criteria and order for displaying your search results.



# Novel Search Engine

Filter novels by title, author, summary keywords, and specific genres or tags.

Search by Novel Title...

## Author

Search for novels by specific author names or keywords.

Enter author name keywords...

## Summary Keywords

Use keywords found within the novel's summary description.

Enter summary keywords...

## Popular Genres

Click to cycle through: \*\*Neutral (default)\*\* → \*\*Include (green)\*\* → \*\*Exclude (red)\*\*.

Fantasy

Romance

Sci-Fi

Action

Mystery

Historical

Cultivation

Gaming

Adventure

## Niche Tags

Refine your search with specific, detailed tags. Use the same Include/Exclude logic.

Villainess

Time Travel

Transmigration

System

VRMMO

Slice of Life

Dungeons

Harem

Rebirth

+ Add Custom Tag

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
```

```
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Advanced Novel Search Interface</title>
<!-- Load Tailwind CSS and configure Dark Mode -->
<script src="https://cdn.tailwindcss.com"></script>
<script>
    // Configure Tailwind to use the 'dark' class on the HTML element for
    // dark mode
    tailwind.config = {
        darkMode: 'class',
        theme: {
            extend: {
                fontFamily: {
                    sans: ['Inter', 'sans-serif'],
                },
            },
        },
    }
</script>
<!-- Use Inter font -->
<style>
    @import
url('https://fonts.googleapis.com/css2?family=Inter:wght@100..900&display=swap');
    body {
        font-family: 'Inter', sans-serif;
        background-color: #f1f5f9; /* Light Slate Background */
        transition: background-color 0.3s;
    }
    /* Custom styles for smoother transition on collapse */
    .collapse-content {
        max-height: 0;
        overflow: hidden;
        transition: max-height 0.4s ease-in-out;
    }
    .collapse-content.active {
        /* Set a height that is guaranteed to be taller than the content */
        max-height: 1000px;
    }

```

```
        }
    </style>
</head>
<body class="p-4 sm:p-8 dark:bg-slate-900 transition-colors duration-300">

    <div class="max-w-4xl mx-auto bg-white dark:bg-slate-800 p-6 sm:p-10 rounded-3xl shadow-2xl border-t-4 border-indigo-600 transition-colors duration-300">

        <!-- Theme Toggle Button -->
        <div class="flex justify-end mb-4">
            <button id="theme-toggle" class="p-2 rounded-full text-slate-600 dark:text-slate-300 hover:bg-slate-100 dark:hover:bg-slate-700 transition duration-150">
                <!-- SVG Icon for Sun/Moon will be set by JS -->
                <svg id="theme-icon" class="w-6 h-6" fill="none" stroke="currentColor" stroke-width="2" stroke-linecap="round" stroke-linejoin="round" viewBox="0 0 24 24" xmlns="http://www.w3.org/2000/svg">
                    <!-- Default Sun Icon Path (Simple, clear icon) -->
                    <path d="M12 2v2M12 20v2M4.93 4.93l1.41 1.41M17.66 17.66l1.41 1.41M2 12h2M20 12h2M4.93 19.07l1.41-1.41M17.66 6.34l1.41-1.41M12 7a5 5 0 1 0 0 10 5 5 0 0 0 0-10z"/>
                </svg>
            </button>
        </div>

        <h1 class="text-3xl sm:text-4xl font-extrabold text-slate-900 dark:text-slate-100 mb-2 text-center">
            Novel Search Engine
        </h1>
        <p class="text-center text-slate-500 dark:text-slate-400 mb-8">
            Filter novels by title, author, summary keywords, and specific genres or tags.
        </p>

        <!-- Main Title Search Bar -->
        <div class="mb-8">
            <label for="novel-title" class="sr-only">Novel Title</label>
```

```
<input type="text" id="novel-title" placeholder="Search by Novel Title...">  
    </div>  
  
<!-- Start of Collapsible Advanced Search Sections -->  
  
<!-- Reusable Accordion Item Structure -->  
<div class="space-y-4">  
  
    <!-- 1. Author Search Dropdown -->  
    <div class="bg-slate-50 dark:bg-slate-700 rounded-xl shadow-md overflow-hidden">  
        <button class="w-full flex justify-between items-center p-4 text-left font-semibold text-lg text-slate-800 dark:text-slate-100 hover:bg-slate-100 dark:hover:bg-slate-600 transition duration-150"  
            onclick="toggleCollapse('author-content',  
'author-icon')">  
            Author  
            <!-- Icon: Plus/Minus -->  
            <span id="author-icon" class="text-2xl text-indigo-600 transition-transform duration-300 transform rotate-0">+</span>  
        </button>  
        <p class="px-4 text-sm text-slate-500 dark:text-slate-400 pb-2">Search for novels by specific author names or keywords.</p>  
        <!-- FIX: Removed all internal spacing from collapse-content and moved it to an inner wrapper -->  
        <div id="author-content" class="collapse-content">  
            <div class="px-4 pb-4">  
                <input type="text" placeholder="Enter author name keywords...">  
                <input type="text" placeholder="Enter author name keywords...">  
            </div>  
        </div>  
    </div>  
</div>
```

```
>
    </div>
</div>

</div>

<!-- 2. Summary Search Dropdown -->
<div class="bg-slate-50 dark:bg-slate-700 rounded-xl shadow-md overflow-hidden">
    <button class="w-full flex justify-between items-center p-4 text-left font-semibold text-lg text-slate-800 dark:text-slate-100 hover:bg-slate-100 dark:hover:bg-slate-600 transition duration-150"
        onclick="toggleCollapse('summary-content',
'summary-icon')">
        Summary Keywords
        <!-- Icon: Plus/Minus -->
        <span id="summary-icon" class="text-2xl text-indigo-600 transition-transform duration-300 transform rotate-0">+</span>
    </button>
    <p class="px-4 text-sm text-slate-500 dark:text-slate-400 pb-2">Use keywords found within the novel's summary description.</p>
    <!-- FIX: Removed all internal spacing from collapse-content and moved it to an inner wrapper -->
    <div id="summary-content" class="collapse-content">
        <div class="px-4 pb-4">
            <input type="text" placeholder="Enter summary
keywords..." class="w-full p-3 border border-slate-300 dark:border-slate-600 dark:bg-slate-800 dark:text-slate-100 rounded-lg focus:border-indigo-500 focus:ring-1 focus:ring-indigo-500">
        </div>
    </div>
</div>

<!-- 3. Popular Genres Dropdown (Include/Exclude Buttons) -->
<div class="bg-slate-50 dark:bg-slate-700 rounded-xl shadow-md overflow-hidden">
    <button class="w-full flex justify-between items-center p-4"
```

```
text-left font-semibold text-lg text-slate-800 dark:text-slate-100
hover:bg-slate-100 dark:hover:bg-slate-600 transition duration-150"
    onclick="toggleCollapse('genres-content',
'genres-icon')">
    Popular Genres
    <!-- Icon: Plus/MINUS -->
    <span id="genres-icon" class="text-2xl text-indigo-600
transition-transform duration-300 transform rotate-0">+</span>
</button>
<p class="px-4 text-sm text-slate-500 dark:text-slate-400
pb-2">Click to cycle through: **Neutral (default)** &rarr; **Include (green)** &rarr; **Exclude (red)**.</p>
    <!-- FIX: Removed all internal spacing from collapse-content
and moved it to an inner wrapper -->
    <div id="genres-content" class="collapse-content">
        <div class="px-4 pb-4">
            <div id="genre-buttons" class="flex flex-wrap gap-2">
                <!-- Genre Buttons will be injected here by JS -->
            </div>
        </div>
    </div>
</div>

    <!-- 4. Niche Tags Dropdown (Include/Exclude Buttons) -->
    <div class="bg-slate-50 dark:bg-slate-700 rounded-md shadow-md
overflow-hidden">
        <button class="w-full flex justify-between items-center p-4
text-left font-semibold text-lg text-slate-800 dark:text-slate-100
hover:bg-slate-100 dark:hover:bg-slate-600 transition duration-150"
    onclick="toggleCollapse('tags-content', 'tags-icon')">
            Niche Tags
            <!-- Icon: Plus/MINUS -->
            <span id="tags-icon" class="text-2xl text-indigo-600
transition-transform duration-300 transform rotate-0">+</span>
        </button>
        <p class="px-4 text-sm text-slate-500 dark:text-slate-400
pb-2">Refine your search with specific, detailed tags. Use the same
Include/Exclude logic.</p>
```

```
<!-- FIX: Removed all internal spacing from collapse-content  
and moved it to an inner wrapper -->  
    <div id="tags-content" class="collapse-content">  
        <div class="px-4 pb-4">  
            <div id="tag-buttons" class="flex flex-wrap gap-2  
mb-3">  
                <!-- Tag Buttons will be injected here by JS -->  
            </div>  
                <!-- ADDED: Add Custom Tag Button -->  
                <button id="add-tag-btn" class="w-full p-3 border  
border-dashed border-indigo-400 text-indigo-600 dark:text-indigo-400  
dark:border-indigo-600 hover:bg-indigo-50 dark:hover:bg-slate-700 rounded-lg  
transition duration-150 flex items-center justify-center"  
onclick="handleAddCustomTag()">  
                    <svg class="w-5 h-5 mr-2" fill="none"  
stroke="currentColor" viewBox="0 0 24 24"  
xmlns="http://www.w3.org/2000/svg"><path stroke-linecap="round"  
stroke-linejoin="round" stroke-width="2" d="M12 6v6m0 0v6m0-6h6m-6  
0H6"></path></svg>  
                    Add Custom Tag  
                </button>  
            </div>  
        </div>  
    </div>  
  
<!-- 5. Fandoms Dropdown -->  
    <div class="bg-slate-50 dark:bg-slate-700 rounded-xl shadow-md  
overflow-hidden">  
        <button class="w-full flex justify-between items-center p-4  
text-left font-semibold text-lg text-slate-800 dark:text-slate-100  
hover:bg-slate-100 dark:hover:bg-slate-600 transition duration-150"  
            onclick="toggleCollapse('fandoms-content',  
'fandoms-icon')">  
            Fandoms  
            <!-- Icon: Plus/Minus -->  
            <span id="fandoms-icon" class="text-2xl text-indigo-600  
transition-transform duration-300 transform rotate-0">+</span>  
        </button>
```

```

    <p class="px-4 text-sm text-slate-500 dark:text-slate-400
pb-2">Filter results related to specific popular fictional universes (shows,
movies, comics, etc.).</p>
    <div id="fandoms-content" class="collapse-content">
        <div class="px-4 pb-4">
            <!-- Search Input -->
            <input type="text" id="fandom-search"
placeholder="Quick find a fandom..." class="w-full p-3 mb-3 border border-slate-300
dark:border-slate-600 dark:bg-slate-800 dark:text-slate-100 rounded-lg
focus:border-indigo-500 focus:ring-1 focus:ring-indigo-500"
            >

            <!-- Fandom Buttons -->
            <div id="fandom-buttons" class="flex flex-wrap gap-2
mb-3">
                <!-- Fandom Buttons will be injected here by JS -->
            </div>

            <!-- Add Custom Fandom Button -->
            <button id="add-fandom-btn" class="w-full p-3 border
border-dashed border-indigo-400 text-indigo-600 dark:text-indigo-400
dark:border-indigo-600 hover:bg-indigo-50 dark:hover:bg-slate-700 rounded-lg
transition duration-150 flex items-center justify-center"
onclick="handleAddCustomFandom()">
                <svg class="w-5 h-5 mr-2" fill="none"
stroke="currentColor" viewBox="0 0 24 24"
xmlns="http://www.w3.org/2000/svg"><path stroke-linecap="round"
stroke-linejoin="round" stroke-width="2" d="M12 6v6m0 0v6m0-6h6m-6
0H6"></path></svg>
                Add Custom Fandom
            </button>
        </div>
    </div>
</div>

<!-- 6. Sorting Options Dropdown -->

```

```
<div class="bg-slate-50 dark:bg-slate-700 rounded-xl shadow-md overflow-hidden">
    <button class="w-full flex justify-between items-center p-4 text-left font-semibold text-lg text-slate-800 dark:text-slate-100 hover:bg-slate-100 dark:hover:bg-slate-600 transition duration-150"
        onclick="toggleCollapse('sorting-content',
        'sorting-icon')">
        Sorting Options
        <!-- Icon: Plus/Minus -->
        <span id="sorting-icon" class="text-2xl text-indigo-600 transition-transform duration-300 transform rotate-0">+</span>
    </button>
    <p class="px-4 text-sm text-slate-500 dark:text-slate-400 pb-2">Choose the criteria and order for displaying your search results.</p>
    <!-- FIX: Removed all internal spacing from collapse-content and moved it to an inner wrapper -->
    <div id="sorting-content" class="collapse-content">
        <div class="px-4 pb-4">
            <div class="flex flex-col sm:flex-row gap-4">

                <!-- Sort By Dropdown -->
                <div class="sm:w-3/5">
                    <label for="sort-by" class="block text-sm font-medium text-slate-700 dark:text-slate-300 mb-1">Sort By:</label>
                    <select id="sort-by" class="w-full p-3 border border-slate-300 dark:border-slate-600 dark:bg-slate-800 dark:text-slate-100 rounded-lg focus:ring-indigo-500 focus:border-indigo-500 transition">
                        <option value="last-updated">Last Updated</option>
                        <option value="most-popular">Most Popular</option>
                        <option value="newly-released">Newly Released</option>
                        <option value="title-a-z">Title (A-Z)</option>
                        <option value="rating">Average Rating</option>
                    </select>
                </div>
            </div>
        </div>
    </div>
</div>
```

```
        </div>

        <!-- Order (Asc/Desc) Toggle Button Group --&gt;
        &lt;div class="sm:w-2/5"&gt;
            &lt;label class="block text-sm font-medium
text-slate-700 dark:text-slate-300 mb-1"&gt;Order:&lt;/label&gt;
            &lt;div id="order-toggle" class="flex rounded-lg
border border-slate-300 dark:border-slate-600 overflow-hidden text-sm"&gt;
                &lt;button data-order="asc" class="w-1/2 p-3
font-medium bg-indigo-500 text-white dark:bg-indigo-600 transition
duration-150" onclick="setOrder(this)"&gt;
                    Ascending
                &lt;/button&gt;
                &lt;button data-order="desc" class="w-1/2 p-3
font-medium bg-white text-slate-700 dark:bg-slate-800 dark:text-slate-300
hover:bg-slate-100 dark:hover:bg-slate-700 transition duration-150"
onclick="setOrder(this)"&gt;
                    Descending
                &lt;/button&gt;
            &lt;/div&gt;
        &lt;/div&gt;
    &lt;/div&gt;
&lt;/div&gt;

&lt;/div&gt;
<!-- End of Collapsible Advanced Search Sections --&gt;

<!-- Submit Button --&gt;
&lt;div class="mt-8 text-center"&gt;
    &lt;button class="w-full md:w-auto px-8 py-3 bg-indigo-600 text-white
font-bold rounded-xl shadow-lg hover:bg-indigo-700 transition duration-300
transform hover:scale-[1.01]"&gt;
        &lt;span class="inline-block align-middle mr-2"&gt;
            &lt;svg class="w-5 h-5" fill="none" stroke="currentColor"
viewBox="0 0 24 24" xmlns="http://www.w3.org/2000/svg"&gt;&lt;path
stroke-linecap="round" stroke-linejoin="round" stroke-width="2" d="M21</pre>
```

```
211-6-6m2-5a7 7 0 11-14 0 7 7 0 0114 0z"></path></svg>
    </span>
    Run Advanced Search
</button>
</div>

</div>

<script>
    const GENRES = ['Fantasy', 'Romance', 'Sci-Fi', 'Action', 'Mystery',
'Historical', 'Cultivation', 'Gaming', 'Adventure'];
    const TAGS = ['Villainess', 'Time Travel', 'Transmigration', 'System',
'VRMMO', 'Slice of Life', 'Dungeons', 'Harem', 'Rebirth'];
    // New Fandoms Data
    const FANDOMS = ['Star Wars', 'Harry Potter', 'Marvel MCU', 'DC
Comics', 'Doctor Who', 'Lord of the Rings', 'Game of Thrones', 'Avatar: The
Last Airbender'];

    // Updated SVG path data for cleaner icons (using stroke for clarity)
    const sunIcon = `<path d="M12 2v2M12 20v2M4.93 4.93l1.41 1.41M17.66
17.66l1.41 1.41M2 12h2M20 12h2M4.93 19.07l1.41-1.41M17.66 6.34l1.41-1.41M12 7a5
5 0 1 0 0 10 5 5 0 0 0 0-10z"/>`;
    const moonIcon = `<path d="M21 12.79A9 9 0 1 1 11.21 3 7 7 0 0 0 21
12.79z"/>`; // A clear crescent moon

    // --- Data and Initialization ---

    function createButtons(containerId, items) {
        const container = document.getElementById(containerId);
        // Clear existing buttons first, in case of dynamic additions
        container.innerHTML = '';

        items.forEach(item => {
            const button = document.createElement('button');
            button.textContent = item;
            button.dataset.state = '0';
            button.dataset.tagType = containerId; // e.g., 'genre-buttons',
'tag-buttons', 'fandom-buttons'
```

```
        button.className = 'px-4 py-2 text-sm font-medium rounded-full transition duration-150 ease-in-out' + getButtonClasses('0');
        button.onclick = () => toggleTagState(button);
        container.appendChild(button);
    });
}

function getButtonClasses(state) {
    switch(state) {
        case '1': // Include (Green)
            return 'bg-emerald-500 text-white shadow-md hover:bg-emerald-600 ring-2 ring-emerald-300';
        case '2': // Exclude (Red)
            return 'bg-red-500 text-white shadow-md hover:bg-red-600 ring-2 ring-red-300';
        case '0': // Neutral (Default)
        default:
            // Use dark mode friendly neutral colors
            return 'bg-slate-200 text-slate-700 hover:bg-slate-300 dark:bg-slate-600 dark:text-slate-100 dark:hover:bg-slate-500';
    }
}

// --- Core UI Logic ---

// Function to toggle the three states (Neutral, Include, Exclude)
function toggleTagState(button) {
    let state = parseInt(button.dataset.state);
    // Cycle state: 0 -> 1 -> 2 -> 0
    state = (state + 1) % 3;
    button.dataset.state = state.toString();
    // Remove previous color/shadow classes before adding new ones
    const baseClasses = 'px-4 py-2 text-sm font-medium rounded-full transition duration-150 ease-in-out';
    button.className = baseClasses + ' ' +
getButtonClasses(state.toString());
}
```

```
// Updated function to only log action, not add a button
function handleAddCustomFandom() {
    // This function would typically open a modal for input.
    console.log("Action: User clicked 'Add Custom Fandom'. A custom
modal/dialog would open here to take input.");
}

// New function for adding a custom tag
function handleAddCustomTag() {
    // This function would typically open a modal for input.
    console.log("Action: User clicked 'Add Custom Tag'. A custom
modal/dialog would open here to take input.");
}

// Function to toggle the collapse state of the sections
function toggleCollapse(contentId, iconId) {
    const content = document.getElementById(contentId);
    const icon = document.getElementById(iconId);

    const isActive = content.classList.toggle('active');

    if (isActive) {
        // If opening, change plus to minus
        icon.textContent = '-';
        // Use en dash for cleaner look
        icon.classList.add('rotate-180');
    } else {
        // If closing, change minus to plus
        icon.textContent = '+';
        icon.classList.remove('rotate-180');
    }
}

// Function to toggle Dark/Light Theme
function toggleTheme() {
    const html = document.documentElement;
    const icon = document.getElementById('theme-icon');
    const isDark = html.classList.toggle('dark');
```

```
    if (isDark) {
        icon.innerHTML = moonIcon;
        icon.setAttribute('fill', 'none');
    } else {
        icon.innerHTML = sunIcon;
        icon.setAttribute('fill', 'none');
    }
}

// Function to set Ascending or Descending order
function setOrder(clickedButton) {
    const orderContainer = document.getElementById('order-toggle');
    const ascButton =
orderContainer.querySelector('[data-order="asc"]');
    const descButton =
orderContainer.querySelector('[data-order="desc"]');

    // Define classes for active and inactive states
    const activeClasses = ['bg-indigo-500', 'dark:bg-indigo-600',
'text-white'];
    const inactiveClasses = ['bg-white', 'text-slate-700',
'dark:bg-slate-800', 'dark:text-slate-300', 'hover:bg-slate-100',
'dark:hover:bg-slate-700'];

    // Reset classes on both buttons
    [ascButton, descButton].forEach(btn => {
        btn.classList.remove(...activeClasses);
        btn.classList.add(...inactiveClasses);
    });

    // Set active classes on the clicked button
    clickedButton.classList.remove(...inactiveClasses);
    clickedButton.classList.add(...activeClasses);
}

// --- Initialization ---

document.addEventListener('DOMContentLoaded', () => {
```

```
createButtons('genre-buttons', GENRES);
createButtons('tag-buttons', TAGS);
createButtons('fandom-buttons', FANDOMS); // Initialize new Fandom
buttons

// Initialize theme toggle and set initial icon
const themeToggle = document.getElementById('theme-toggle');
const icon = document.getElementById('theme-icon');
themeToggle.addEventListener('click', toggleTheme);

// Set initial state (default is light mode)
// Use stroke-based icons for clarity
icon.setAttribute('stroke', 'currentColor');
icon.setAttribute('stroke-width', '2');
icon.setAttribute('fill', 'none');
icon.innerHTML = sunIcon;

// Initialize order button (default to Ascending)
const initialOrderButton = document.querySelector('#order-toggle
[data-order="asc"]');
if (initialOrderButton) {
    setOrder(initialOrderButton);
}
});

</script>
</body>
</html>
```