

Tavern Keeper

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Abstract:

Tavern Keeper is a world-building web application designed for game masters and creators to organize and develop their fictional worlds. The platform enables users to create, edit, and manage various aspects of their worlds, including maps, characters, organizations, and locations. The application's user interfaces are built with user-friendliness and easy accessibility in mind and aim to be an introductory tool to an inexperienced user in the realm of world-building.

Technology:

- VS Code Editor
- Vercel
- React. A javascript framework for the frontend.
- Node.js. Javascript to handle backend/business logic.
- PostgreSQL

Requirements:

1. Header

1.1. Layout

1.1.1. The header will be a horizontal layout of various links used to navigate the site. These links will be in the form of icons.

1.1.1.1. Home icon will take the user to the homepage of Tavern Keeper.

1.1.1.2. Community icon will take the user to the community board of Tavern Keeper.

1.1.1.3. World icon will take the user to the World Page where all of their worlds are contained.

1.1.1.4. Profile icon will be a selection from preset icons chosen by the user.

- 1.1.1.4.1. Replaces the sign-in icon after the user signs in. If the user is not signed in, it will be replaced by a sign-in icon.
 - 1.1.1.4.2. When clicked, the profile icon will reveal a dropdown menu where the account link and sign out link will appear.
 - 1.1.1.5. Sign in icon will take the user to the sign in page if they are logged out. If they are logged in, it will be replaced by their profile icon.
 - 1.2. Every page in tavern keeper will have this header as a standard.
- 2. Grid Display**
 - 2.1. Pages on the website will use a grid-based display to display lists of selectable data
 - 2.2. The grid will display a grid of interactive, rectangular cells
 - 2.2.1. Each row will contain 3 cells
 - 2.3. Immediately above the grid, there will be a drop-down with options to change the total number of cells displayed at a time
 - 2.3.1. The options will be 9, 18, and 27
 - 2.4. Immediately below the grid, there will be a page bar to change the set of cells displayed
 - 2.4.1. The bar will list the number of the current page
 - 2.4.2. On either side of the page number, there will be single arrows to advance or regress the page by one
 - 2.4.3. On the far sides of the bar, there will be double arrows to advance or regress to the first or last page
 - 2.4.4. When on the first page, both of the left arrows will be grayed out and unusable
 - 2.4.5. When on the last page, both of the right arrows will be grayed out and unusable
- 3. Homepage**
 - 3.1. Layout
 - 3.1.1. The Tavern Keeper homepage will contain a large banner introducing the product
 - 3.1.1.1. The banner will be a large image with text overlaid.
 - 3.1.2. The homepage will contain blurbs showcasing Tavern Keeper features and capabilities.
 - 3.1.2.1. A blurb will be a simple section of content containing a circular image along with a paragraph of text.
 - 3.2. The homepage will always be the default page when opening Tavern Keeper.

4. Sign-In

- 4.1. The sign-in page will use Google API to process logins.
- 4.2. Upon signing in, the user will be returned to the Tavern Keeper homepage where the Sign In button on the header will be replaced with their profile icon.

5. World Page

- 5.1. The world page will have a grid display feature that dominates the page
 - 5.1.1. Each button will represent one of the user's worlds and will display the following information
 - 5.1.1.1. A representative image
 - 5.1.1.1.1. The primary map for the world will be used by default
 - 5.1.1.1.2. If no maps have been added, a default stock image will be used
 - 5.1.1.2. The name of the world
 - 5.1.1.3. View and Edit
 - 5.1.1.3.1. Below each world will be a button that will take the user to the World Preview page
 - 5.1.1.3.2. Below each world will be a button that will take the user to the World Editor
 - 5.1.2. The top-leftmost button will be the "New World" button
 - 5.1.2.1. The image will be a prominent cross, and the name field will read "New World"
 - 5.1.2.2. When clicked, the Create World popup will appear
- 5.2. Create World Popup
 - 5.2.1. Initializes world
 - 5.2.2. Will contain a text field to enter the name of the new world.
 - 5.2.3. Will contain a text field to enter a short description.
 - 5.2.4. Will contain a button to toggle whether or not the world will be public or private.
 - 5.2.4.1. Public vs. Private Worlds
 - 5.2.4.1.1. Depending on whether or not this is checked is what determines if the user's world is displayed on the community board.
 - 5.2.5. Will contain radio buttons consisting of preset genres that may match the user's world that the user will be able to select.
 - 5.2.6. Upon submitting, this will send the user directly to their newly created world's dashboard..

6. World Editor

- 6.1. Main Content

- 6.1.1. There will be a label at the top of the page containing the title of the world.
- 6.1.2. Next to the name of the world will be an edit icon where the user can change the displayed name of their world.
- 6.1.3. The main content will also contain a short user created description of their world.
- 6.1.4. The description of the world will have an edit icon where the user description can be changed.
- 6.1.5. Will contain buttons to toggle genre of world as the user sees fit.
- 6.1.6. Will contain buttons to toggle whether the world is set to public or private.
- 6.2. Sidebar
 - 6.2.1. The sidebar will contain various icons linking to different pages for entering different information about a world.
 - 6.2.1.1. Home icon will link back to the main World Editor page
 - 6.2.1.2. Map icon will link to Map Page of the World Editor
 - 6.2.1.3. Character icon will link to the Character Page of the World Editor
 - 6.2.1.4. Organization icon will link to the Organization Page of the World Editor
 - 6.2.1.5. Location icon will link to the Location Page of the World Editor
 - 6.2.1.6. Timeline icon will link to the Timeline Page of the World Editor
 - 6.2.1.7. Misc icon will link to the Misc Page of the World Editor
 - 6.2.1.8. Home icon will link back to the main page of the World Editor
 - 6.2.1.9. Submit button will update the user information and send it to the database

7. World Editor Sub-pages

- 7.1. The World Editor will link to various pages where the user will be prompted to enter and store information about their world.
- 7.2. Layout
 - 7.2.1. Every sub-page will contain a sidebar with links to all the other sub-pages as well as a link back to the main page of the World Editor
 - 7.2.2. Every sub-page will contain a button at the top of the page to add new entries under that category
 - 7.2.3. Each sub-page will contain a list of previously created entries under that category

- 7.2.3.1. Each previously created entry will be an icon with a name under it

7.3. Functionality

7.3.1. Map page

7.3.1.1. Popup

- 7.3.1.1.1. Upon clicking the add button on this page, a popup prompting the user to add a new map will open
- 7.3.1.1.2. This popup will contain a text field to enter the name of the map
- 7.3.1.1.3. This popup will contain an upload button allowing the user to browse their desktop to upload an image.
 - 7.3.1.1.3.1. PDF, PNG, and JPEG files are supported.

7.3.1.2. View

- 7.3.1.2.1. Upon clicking on a previously created map, a detailed view of that map will open. All previously placed pins will be shown.
- 7.3.1.2.2. This will contain a zoom in and zoom out button.
 - 7.3.1.2.2.1. Each click will zoom in or zoom out at a rate of 25%.
- 7.3.1.2.3. This will contain a pin button where the user can create, place, and remove pins in their world.
 - 7.3.1.2.3.1. Pins will be given a name and will be added to the locations page of the World Editor.

7.3.2. Character page

7.3.2.1. Popup

- 7.3.2.1.1. Upon clicking the add button on this page, a popup prompting the user to add a new character will open.
- 7.3.2.1.2. Will contain a text field to enter the name of the character.
- 7.3.2.1.3. Will contain a text field to enter a description of the character.
- 7.3.2.1.4. Will contain a field where the user will be able to choose preset character portraits.
 - 7.3.2.1.4.1. The user will be able to pick from 20 preset PNG images that span character archetypes from various different genres.

7.3.2.2. View

- 7.3.2.2.1. Upon clicking a previously created character, a detailed view of that character will open.

- 7.3.2.2.2. The detailed view will contain character name, description as well as the character portrait.
 - 7.3.2.2.3. Each field is editable in this view.
 - 7.3.3. Organization page
 - 7.3.3.1. Popup
 - 7.3.3.1.1. Upon clicking the add button on this page, a popup prompting the user to add a new character will open.
 - 7.3.3.1.2. Will contain a text field to enter the name of the organization.
 - 7.3.3.1.3. Will contain a text field to enter a description of the organization.
 - 7.3.3.2. View
 - 7.3.3.2.1. Upon clicking a previously created organization, a detailed view of that organization will open.
 - 7.3.3.2.2. Will contain the name and description of the organization.
 - 7.3.3.2.3. Each field is editable in this view.
 - 7.3.4. Location page
 - 7.3.4.1. Popup
 - 7.3.4.1.1. Upon clicking the add button on this page, a popup prompting the user to add a new location will open.
 - 7.3.4.1.2. Will contain a text field to enter the name of the location.
 - 7.3.4.1.3. Will contain a text field to enter a description of the location.
 - 7.3.4.2. View
 - 7.3.4.2.1. Upon clicking a previously created location, a detailed view of that location will open.
 - 7.3.4.2.2. Will contain the name and description of the location.
 - 7.3.4.2.3. Each field is editable in this view.
 - 7.3.5. Timeline page
 - 7.3.5.1. Popup
 - 7.3.5.1.1. Upon clicking the add event button on this page, a popup prompting the user to add a new event will open.
 - 7.3.5.1.2. Will contain a text field to enter the name of the event.
 - 7.3.5.1.3. Will contain a text field to enter a description of the event.
 - 7.3.5.1.4. Will contain two combo boxes to enter the date that the event began and the date the event ended.

7.3.5.2. Sorting

7.3.5.2.1. Once events are added, Tavern Keeper will automatically sort each event chronologically by event start date.

7.3.5.2.2. Each event is linked vertically in the Timeline page UI.

7.3.5.3. View

7.3.5.3.1. Upon clicking a previously created event, a detailed view of that event will open.

7.3.5.3.2. Detailed view will contain name, description, and dates for the specific event.

7.3.5.3.3. Each field is editable in this view.

7.3.5.3.4. Upon closing this tab, if a date is changed, the events will be re-sorted.

7.3.6. Miscellaneous Page

7.3.6.1. Popup

7.3.6.1.1. Upon clicking the add button on this page, a popup prompting the user to add a miscellaneous entry will open.

7.3.6.1.2. Will contain a text field to enter the name of the entry.

7.3.6.1.3. Will contain a text field to enter a description of the entry.

7.3.6.2. View

7.3.6.2.1. Upon clicking a previously created location, a detailed view of that entry will open.

7.3.6.2.2. Will contain the name and description of the entry.

7.3.6.2.3. Each field is editable in this view.

8. World Preview

8.1. Layout

8.1.1. Will contain a banner

8.1.2. Will contain a label at the top of the page containing the name of the author

8.1.3. Will contain a text area containing a short description of the world

8.1.4. User Data

8.1.4.1. The page will be separated by headers of each type of data that the user is entered (Maps, characters, locations, organizations, timeline events, and miscellaneous)

8.1.4.2. Data will be displayed under each header in a grid image format similar to previous sections

8.2. Functionality

- 8.2.1. Upon clicking a widget (map, character, etc), it will operate similarly to the detailed view functionality of the world editor sub-pages (see 7.3).

9. Profile Page

- 9.1. Upon loading the profile page, users will be prompted to select a profile picture from a set group of pictures.
- 9.2. Users will be able to add a short description of themselves.

10. Community Page

- 10.1. Upon loading the community page, users will be able to view other world's created by users.
- 10.2. The world will display title, picture, author, genre, and date created.
- 10.3. Filter
 - 10.3.1. Users will be able to filter maps by genre.
- 10.4. Search functionality
 - 10.4.1. Users will be able to search by author name to find a specific world.
 - 10.4.2. Users will be able to search by world name to find a specific world.
- 10.5. View
 - 10.5.1. Upon clicking on a world, a user will be sent to view a world in detail.
 - 10.5.2. Here, the user will be enabled to see the world's characters, locations, etc. in detail upon hovering over each component.
 - 10.5.3. In this view, each world's data will be organized as laid out in World Preview (see 8.1).
 - 10.5.4. Interactivity
 - 10.5.4.1. In the view, the user will be able to like or dislike the selected world.

Timeline

Dates	Evan	Silas	Kenneth	Kaleb
1/20 - 1/24	Application proposal, product discovery, determining softwares and languages, assessing team members strengths and abilities, information gathering	Application proposal, product discovery, determining softwares and languages, assessing team members strengths and abilities, information gathering	Application proposal, product discovery, determining softwares and languages, assessing team members strengths and abilities, information gathering	Application proposal, product discovery, determining softwares and languages, assessing team members strengths and abilities, information gathering
1/27 - 1/31	Team setup with the tools for development. GitHub setup for sprints, research and resolve any issues with hardware or tools. Information gathering.	Team setup with the tools for development. GitHub setup for sprints, research and resolve any issues with hardware or tools. Information gathering.	Team setup with the tools for development. GitHub setup for sprints, research and resolve any issues with hardware or tools. Information gathering.	Team setup with the tools for development. GitHub setup for sprints, research and resolve any issues with hardware or tools. Information gathering.
2/3 - 2/7	Finish working on the requirements document, as well as the presentation. Get the skeleton for the frontend started	Finish working on the requirements document, as well as the presentation. Get the skeleton for the frontend started	Finish working on the requirements document, as well as the presentation. Get the skeleton for the frontend started	Finish working on the requirements document, as well as the presentation. Get the skeleton for the frontend started

2/10 - 2/14	Create the home page, as well as the header which links to all of the other pages. Create the sidebar inside the edit page.	Create the community board page as well as the world page.	Outline the database tables, as well as how they are going to connect to each other.	Outline the database tables, as well as how they are going to connect to each other.
2/17 - 2/21	Create the entire skeleton of the frontend, without full functionality from the backend.	Create the entire skeleton of the frontend, without full functionality from the backend.	Creating the essential functionality of the database.	Creating the essential functionality of the database.
2/24 - 2/28	Begin working on sign in and sign up functionality, through the use of Google API. If possible, begin working on mobile functionality.	Begin working on sign in and sign up functionality, through the use of Google API. If possible, begin working on mobile functionality.	If needed, finish essential functionality of the database, begin working on world initialization pop up.	If needed, finish essential functionality of the database, begin working on world initialization pop up.
3/3 - 3/7	Continue to work on mobile functionality to ensure that the site scales to mobile devices.	Continue to work on mobile functionality, to ensure that the site scales to mobile devices.	Begin working on world editor sub pages, such as characters, worlds, and ensure that it submits to backend	Begin working on world editor sub pages, such as characters, worlds, and ensure that it submits to backend
3/10 - 3/14	Begin working on a community page, to	Begin working on a community page, to ensure that users can	Continue working on world editor sub pages,	Continue working on world editor sub pages,

	ensure that users can see other users' worlds.	see other users' worlds.	such as characters, worlds, and ensure that it submits to backend	such as characters, worlds, and ensure that it submits to backend
3/17 - 21	Continue working on the community page, to ensure functionality.	Continue working on the community page, to ensure functionality.	Continue working on world editor sub pages, such as locations, misc, and ensure that it submits to backend	Continue working on world editor sub pages, such as locations, misc, and ensure that it submits to backend
3/24 - 3/28	Work on and tweak the world preview page.	Work on and tweak the world preview page.	Continue working on world editor sub pages, such as locations, misc, and ensure that it submits to backend	Continue working on world editor sub pages, locations, misc, and ensure that it submits to backend
3/31 - 4/4	Ensure that the server is properly configured, and is working properly with the rest of functionality.	Ensure that the server is properly configured, and is working properly with the rest of functionality.	Ensure that the server is properly configured, and is working properly with the rest of functionality.	Ensure that the server is properly configured, and is working properly with the rest of functionality.
4/7 - 4/ 11	Team meeting to ensure that we have tied up all loose ends, and finish anything that we haven't	Team meeting to ensure that we have tied up all loose ends, and finish anything that we haven't finished yet.	Team meeting to ensure that we have tied up all loose ends, and finish anything that we haven't finished yet.	Team meeting to ensure that we have tied up all loose ends, and finish anything that we haven't finished yet.

	finished yet.			
4/14 - 4/18	Try to find any bugs or errors in the website.	Try to find any bugs or errors in the website.	Try to find any bugs or errors in the website.	Try to find any bugs or errors in the website.
4/21 - 4/25	Fix any bugs from testing, and put the finishing touches on the website.	Fix any bugs from testing, and put the finishing touches on the website	Fix any bugs from testing, and put the finishing touches on the website	Fix any bugs from testing, and put the finishing touches on the website
4/28 - 5/2	Continue testing, and begin and finish the presentation.	Continue testing, and begin and finish the presentation.	Continue testing, and begin and finish the presentation.	Continue testing, and begin and finish the presentation.