Requiem Registry - Requirements Document

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Project Name

When brainstorming a name for a cemetery management system, we wanted to pick something unique that didn't sound like every other cemetery name. We concluded that **Requiem Registry** would be a good fit. Requiem means an act or token of remembrance; in the roman catholic church, it means a" Mass for the repose of the souls of the dead," according to the Oxford Dictionary. The registry part seems to be a good fit for the idea that a database keeps track of all the plots. This name seems to capture the idea of what our website will do.

Team Members Names

See Figure 1 in the appendix for a detailed description.

Abstract

Requiem Registry will be a web-accessible database that aids in managing cemeteries, with the addition of a public front where people can search for those buried in that cemetery by name. The website will be divided into two sections: one for administrators and one for users. The administrators will be required to log in through a Google account to access administrator privileges and additional web pages. Users, however, will not need to log in, as the website will be available for the public in a read-only state with only the search page and information page visible. The website will have features to help the administrators easily keep and adjust the records for the cemetery, plots, and people as needed. Requiem Registry is specifically geared toward small cemeteries that might only have the funding or support to keep physical records. This will be a simple solution to get their records on something more consistent than multiple copies on poster-sized pieces of paper.

The administrators can add, edit, and remove cemeteries. Each cemetery will have its name, description, address, and capacity—the number of plots it contains. Once an instance of a cemetery is created in the database, the administrator can add people to empty plots, and a map view is provided for quickly moving to plot numbers. The public side of the website will have a drop-down if there are multiple cemeteries available; beside the drop-down will be a search bar to enter the names of people. Once the cemetery selection is made, a name and description of the cemetery will be displayed above the search bar. On a successful search, the website will display that person's information.

Tools & Technologies

See Figure 2 in the appendix for a detailed description.

Requirements list

1. Main page
    1.1. Logo in the top left corner
    1.2. Name of cemetery and description as header
    1.3. Drop down to select a cemetery
        1.3.1. Updates Cemetery name and description of main page
    1.4. Search bar for selected cemetery
        1.4.1. List of possible names that match search bar text will be displayed in a dropdown under the search bar
        1.4.2. Choosing a name from the dropdown will redirect to the Person Page
    1.5. Admin login button in the top right
        1.5.1. Loads the Google login API to validate email and password
2. Admin Side
    2.1. Admin will be redirected to Admin main page
        2.1.1. Same as the Main page but with a navigation bar
        2.1.2. Admin navigation bar displays page links (Cemetery management, Create Person, Map, and Plot List)
    2.2. Cemetery Management Page
        2.2.1. Dropdown menu to select cemetery
            2.2.1.1. Name and description will be displayed as a form once selected
            2.2.1.2. Cemetery form can be edited to make changes
            2.2.1.3. Delete button will wipe the cemetery from the database
        2.2.2. Add cemetery button will make a form pop up to create new cemetery
    2.3. Create Person Page
        2.3.1. Form with following inputs
            2.3.1.1. First, Middle, and Last name
            2.3.1.2. Suffix
            2.3.1.3. Birth date, Death date
            2.3.1.4. Biography
    2.4. Plot List Page
        2.4.1. Dropdown menu to select which cemetery
        2.4.2. Search bar to filter plots by the name of its occupant
        2.4.3. A list view of all the plots
    2.5. Map Page
        2.5.1. Dropdown menu to select which cemetery

2.5.2. The map page will have Google Maps API.
2.5.2.1. Displays the plots saved in the database
2.5.2.2. Button to add a blank plot
2.5.2.3. Pop-up display for clicking on a plot
2.5.2.3.1. Edit and add person will display the search bar in a pop-up
2.5.2.3.2. Button to take someone off of a plot
2.5.2.3.3. Delete empty plot button

2.6. Edit Person Page
2.6.1. Displays information of a specific person
2.6.2. Edit button will allow the admin to change person information

3. User Side
3.1. Starts at the Main Page (explained in depth above)
3.1.1. Select certain cemeteries to search from or all cemeteries
3.1.2. Search bar to find specific person
3.1.3. Once a person is clicked redirect to that person's info page
3.2. Info Person Page
3.2.1. Take information from the database about specific person
3.2.2. Also display what plot number they are linked to
3.3. Map page
3.3.1. Drop down menu for selecting a cemetery
3.3.2. Google Map API or Image of the cemetery
3.3.2.1. Shows the plot markers and allows the users to click on the plots
3.3.2.2. Displays a mini informational pop up with a link to the person's Info Page

Updated Timeline

See Figure 3 in the appendix for a detailed description.

Appendix

Figure 1: Team Members

Name	Role
Samantha Cook	Front End Developer

Lucas Gamboa	Database Developer
Bricen Hicks	Backend Developer

Figure 2: Requiem Registry Tech-Stack

Component	Dependency Name	Dependency Type	Explantation
Framework	Next.js	Web Framework	React-based framework for building server-rendered and static websites.
Hosting & Deployment	Vercel	Hosting Platform	Deploys and hosts the Next.js application with serverless functions.
Database	PostgreSQL	Relational Database	Stores and manages application data.
Front-end	Material Design	UI Styling Tool	Provides prebuilt React components following Material Design principles.
Styling	Tailwind CSS	CSS Framework	Utility-first framework for designing responsive and modern UI
Authentication	Google Identity API	3rd Party API	Enables Admin users to log in using Gmail
Version Control	GitHub	Version Control	Used for code collaboration and version tracking.
Google Maps	Maps JavaScript API	3rd Party API	Provides interactive maps for the application

Figure 3: Tentative Schedule

Week	Tasks
Week 1: February 3rd - February 7th	**All Members:** Coming to a conclusion on exact how everything will look, and user flow. Finishing up requirements document, and preparing presentation. **Samantha:** Getting familiar with React. **Lucas:** Getting familiar with PostgreSQL **Bricen:** Creating base project to test validity of the tech stack. Also creating a Figma page for the whole UI
Week 2: February 10th - February 14th	**All Members:** Getting familiar with each component we will be responsible for **Samantha:** Using prototyping tools to get an idea of what UI will look like. **Lucas:** Create an Entity Relationship Diagram with specified data types and constraints. Ensure the database design is in third normal form. **Bricen:** Making simple tests to show connection between the database and web page
Week 3: February 17th - February 21st	**All Members:** Getting each portion of tech stack connected **Samantha:** Began working on development, starting with Google login. **Lucas:** Identify and pseudo code required triggers, stored procedures, and views. **Bricen:** Helping with the structure of the front end to ensure ease of connectivity on the server side part
Week 4: February 24th - February 28th	**All Members:** Agree on exactly how the website will look, as well as a logo for the

	website. **Samantha:** Begin work on frontend **Lucas**: Create a database and populate it with mock data. **Bricen:** Altering code to work with the new information from the database
Week 5: March 3rd - March 7th	**All Members:** Getting started integrating **Samantha:** Start to see about integration between frontend, backend, and database **Lucas:** Test triggers, stored procedures, and views with mock data. **Bricen:** Scaling up the server-side code to work with each of the different cemeteries. Most likely learning maps
Week 6: March 10th - March 14th (Spring Break)	**All Members:** **Samantha:** **Lucas:** **Bricen:** goin camping
Week 7: March 17th - March 21st	**All Members:** Continued work on coding**.** **Samantha:** Adding more components to UI now that there is an established connection between components. **Lucas:** Begin integrating the database with the rest of the project. **Bricen:** Adding the completed database information to the UI
Week 8: March 24th - March 28th	**All Members:** More individual coding and integration of portions **Samantha:** Start implementing Google Maps API. **Lucas:** Continue integrating the database with the rest of the project and address emerging bugs. **Bricen:** Making a connection point between Google Maps and the values of the points saved in the database
Week 9: March 31st - April 4th	**All Members:** More individual coding and integration of portions **Samantha:** Continued work on map

	integration. **Lucas:** Continue integrating the database with the rest of the project, address emerging bugs, and alert the group to possible design flaws. **Bricen:** Continued work on the connection between map information and the map API
Week 10: April 7th - April 11th	**All Members:** Finishing code starting posters **Samantha:** Begin testing and styling the front-end UI. **Lucas:** Continue integrating the database with the rest of the project, address emerging bugs, and alert the group to possible design flaws. **Bricen:** editing and maximizing code efficiency
Week 11: April 14th - April 18th	**All Members:** Poster design **Samantha:** Begin working on poster ideas **Lucas:** Review poster ideas and give feedback if needed. **Bricen:** Drawing possible poster plans
Week 12: April 21st - April 25th	**All Members:** Testing code **Samantha:** Finishing up all development. **Lucas:** Ensuring formalization of documentation of the database and its functions. **Bricen:** Helping with any development that has yet to be figured out
Week 13: April 28th - May 2nd	**All Members:** Testing website **Samantha:** Working with the team to see how the website responds during testing. **Lucas:** Coordinate with Bricen to stress test the project to determine its limits. **Bricen:** Adding in plenty of different cemeteries to see the limit of the project
Week 14: May 5th - May 9th	**All Members:** Finishing up poster, last minute testing, presentation. **Samantha:** Any last-minute things that need to be done, and presentation.

	Lucas: Ensuring the team is ready for the final presentation. **Bricen:** learning how to public speak